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119ᵀᴴ ANNUAL MEETING
ABSTRACTS

JANUARY 4–7 2018
BOSTON • MASSACHUSETTS

ARCHAEOLOGICAL INSTITUTE *of* AMERICA

119TH ANNUAL MEETING

ABSTRACTS

VOLUME 41

■ January 4–7, 2018 ■ Boston, Massachusetts ■

Cover Illustration: View of Boston from the Charles River. Image by Kyle Klein

Abstracts appear in the order of presentation and represent papers accepted by the Program Committee during its review process in the months of April and September 2017. Adjustments to the program or to individual abstracts made after December 8, 2017 are not reflected in this publication.

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SESSION 1A: Workshop
New Directions in Seleucid Archaeology

MODERATORS: *Rocco Palermo*, University of Groningen, and *Lidewijde de Jong*, University of Groningen

Workshop Overview Statement

The archaeology of the Seleucid period in the Near East occupies a peculiar position in the academic community. Whereas regions on the edges of the Seleucid world—the Levant, Turkey, central Asia—have seen a steady trickle of research projects, archaeologists of the Near East and classical world have generally ignored its core (Syria and Mesopotamia). Yet settlements, architecture, funerary traditions, and material culture, as well as economy, religion, and models of kingship, define the period between the late fourth and the early first century B.C.E. as one of the earliest moments of intensive globalization in the ancient world. Processes of acculturation have been partly assessed in historical research, but archaeological analyses of this period remain scanty, which in any case is poorly defined in terms of methodological criteria. Its relevance is nevertheless substantial: the archaeological record offers the prospect to analyze the establishment of the Hellenistic impact and the dynamics generated by the encounter of the Hellenistic-Greek culture with local tradition. It might indicate hybridization as well as aspects of preservation or developments that were not connected to Seleucid presence.

This workshop brings together scholars working on the Seleucid Near East. It aims to showcase their projects and to stimulate debates about current issues and research trajectories, as well as the future of research in this area. Numerous surveys and excavations that have been initiated in the last 5–10 years in Iraq and the Gulf are producing great quantities of material of Seleucid date. At the same time, there has been a substantial historical reassessments of the Seleucid era. Thus, now is the time to place the Seleucid period firmly on the map and in the research proposals of Near Eastern and classical scholars.

The panel consists of 10 brief presentations based on precirculated texts. A discussant will respond to each presentation and lead the discussion planned for the final part of the workshop.

PANELISTS: *Ela Katzy*, Vorderasistiche Museum Berlin, *Johannes Kohler*, Free University Berlin, *Eva Anagnostou-Laoutides*, University of Sidney, *Sandra Heinsch*, University of Innsbruck, *Deborah Sandhaus*, Tel Aviv University, *Marek Olszewski*, University of Warsaw, *Stefan Wagner*, University of Nurmberg, *Avner Ecker*, Princeton University, and *Paul Kosmin*, Harvard University

SESSION 1B: Workshop
Probing, Publishing, and Promoting the Use of Digital Archaeological Data

MODERATOR: *Francis P. McManamon*, Center for Digital Antiquity, Arizona State University

Workshop Overview Statement

Modern archaeological investigations produce vast amounts of digital data. Fieldwork, laboratory analysis, collection research, and literature-based studies all use and produce data and information in digital formats. Individual professionals and the discipline as a whole are now challenged to develop and implement methods and techniques to explore, present, publish, and preserve a wide range of digital data. In their recent edited volume on digital archaeology, *Mobilizing the Past for a Digital Future*, Averett, Gordon, and Counts (Grand Forks, N.D. 2016) assert the need for more professional focus on digital " publication and its attendant issues of long-term accessibility and preservation, . . . a central concern of the discipline since its inception, . . . [and] a notable omission in the digital archaeological process at present" (20). Digital data present distinct challenges and opportunities, making digital archaeological practice particularly complicated. For example, what works for access and (re)usability in published data might not be optimal for the long-term preservation of digital data. In addition, there are practical aspects related to the treatment of digital data that are unfamiliar to archaeologists and different from dealing with physical archaeological resources, remains, and records.

This forum proposes bringing to the fore discussions related to access, sharing, and publication, as well as preservation of digital data. The topics to be discussed in this workshop cover key aspects of this challenge:

- How can digital data be made discoverable and accessible to others for education and research?
- What metadata is needed to provide sufficient contextual and descriptive information for data to be reusable?
- What is the range of detail in metadata available for legacy and new digital data? How can archaeologists make best use of what is available?
- How can data be preserved and made available in the long term for reuse?
- What are the examples of archaeologists being credited professionally for curating and using digital data? How can such crediting be made more common, in particular in academic evaluations for tenure and promotion?

PANELISTS: *Jeffery H. Altschul*, Statistical Research, Inc., *Erin Walcek Averett*, Creighton University, *William Caraher*, University of South Dakota, *Derek B. Counts*, University of Wisconsin–Milwaukee, *Carrie Heitman*, University of Nebraska–Lincoln, *Sarah Whitcher Kansa*, Alexandria Archive Institute, and *Adam Rabinowitz*, University of Texas at Austin

SESSION 1C
Fieldwork in Mycenaean and Early Iron Age Greece

CHAIR: *Rebecca Worsham*, Smith College

The Vapheio-Palaiopyrgi Survey Project: Preliminary Results
Louise A. Hitchcock, University of Melbourne, *Emilia Banou*, University of the Peloponnese, *Anne P. Chapin*, Brevard College, *Evangelia Pantou*, Ephor of Prehistoric and Classical Antiquities of Laconia, *Jim Reynolds*, Brevard College, and *Andreas Tsatasaris*, Technological Educational Institute of Athens

In 2016–2017, the Vapheio-Palaiopyrgi Survey Project, under the auspices of the Australian Archaeological Institute at Athens and in collaboration with the Ephorate of Prehistoric and Classical Antiquities of Lakonia, the University of Melbourne, Brevard College, and the University of the Peloponnese, initiated a scientific survey of the sites of Vapheio-Palaiopyrgi. These sites include the Vapheio Tholos, one of the earliest and richest tholos tombs; Palaiopyrgi, one of the largest unexcavated Mycenaean sites in the Peloponnese, and a recently discovered conglomerate quarry, which is situated between them. Moreover, Palaiopyrgi belongs to a network of intervisible sites in the Eurotas River valley including the "Menelaion," Amyklai, Ayios Vassileios, and Vouno Panayias. Over the course of two seasons, the team engaged in a broad complement of both traditional and modern analytical techniques for the study of the landscape and its surface finds and features. The initial results are promising, with implications for the study of regional network in the Eurotas River valley in the prehistoric and later eras. This paper presents the preliminary results of our research in its spatial and chronological contexts, prior to our study season to be held in 2018. Of particular significance are the diagnostic sherds and finds from the Early Helladic through Late Helladic III and the Byzantine periods and the 96 surface features that were recorded.

MYNEKO 2017: Latest Results of Excavation of the Middle to Late Helladic sites of Ayios Ioannis and Ayia Marina Pyrghos and the Kopaic Plain
Michael F. Lane, University of Maryland in Baltimore County, and *Elena Kountouri*, Hellenic Ministry of Culture and Sports

Archaeological digital mapping and test excavation under the direction of the authors continued for a second season at several sites in the northeastern Kopaic Basin of central mainland Greece in 2017. The site of Ayios Ioannis yielded further evidence of both a well-appointed Late Helladic settlement with Cyclopean fortification and retaining wall and an extensive extramural Middle Helladic cemetery with its own circuit wall, the latter presumably connected with a settlement. The site of Ayia Marina Pyrghos yielded evidence of several permanent Middle Helladic settlement phases on whose latest ruins a transitional Middle to Late Helladic "intramural" infant burial ground was located, as well as remains of an Late Helladic IIIB building of at least two stuccoed stone and mudbrick stories, which contained massive storage jars, some on the second floor, decorated fine ware

pottery, and bronze, lead, nonlocal stone, and ivory objects. A curious observation about both these littoral sites, with implications for regional cultural history, is that any construction phase associated with the Early Mycenaean (Late Helladic II–IIIA) so far seems to be entirely lacking, there being only the occasional potsherd that may be dated to this period. Moreover, the evidence of substantial Middle Helladic settlements at both sites, although neither possesses a fertile agricultural hinterland, contributes to the circumstantial case that the lake bed below them was already drained and made agriculturally productive by the end of the Middle Helladic.

Direct evidence of such human intervention beginning at that time had already been provided through the previous geophysical survey and attendant ground-truthing that coauthor Lane directed. Radiocarbon and luminescence dates indicate that some drainage or irrigation features in the plain of the erstwhile lake bed date to between the late 18th and early 17th century B.C.E. Three loci in the plain—D1-T1, O2-T2, and Q1-T2—were further investigated both to confirm these dates and to examine carefully in plan and in section the nature and character of the features discovered through geophysical exploration. In particular, strata in the plain were sampled for dating with radiocarbon, optically and thermally stimulated luminescence, and amino acid racemization of the gastropod shell inclusions. Resultant dates can be productively compared with radiocarbon dates from the site of Ayia Marina Pyrghos. The dates from the latter are tightly correlated with sealed contexts containing conventionally chronologically diagnostic artifacts.

Field operations and chronometry were generously funded by the Institute for Aegean Prehistory, National Science Foundation, and University of Maryland Baltimore County.

The New Excavations at Malthi
Rebecca Worsham, Smith College, and *Michael Lindblom*, Uppsala University

The Middle to Late Helladic site of Malthi in northern Messenia—a highly-organized fortified settlement in the fertile Soulima Valley—is a critical testimony to the sociopolitical organization of settlements during the Early Mycenaean period. Under the aegis of the Swedish Institute at Athens and the Greek Archaeological Service, test excavations of three rooms within the settlement, as well as two areas outside the settlement, were carried out over the 2016 and 2017 summer seasons. These excavations have helped to clarify the sequence and range of use at the site, and specifically the question of when and how the settlement was constructed and abandoned. Useful in this regard are apparent construction levels for the fortification, the frequent appearance of intramural burials, and a burned surface level indicating multiple phases of use for the settlement.

Based on preliminary studies, most of the visible architecture at Malthi seems to have been constructed in a major restructuring of the hilltop in Late Helladic I, a date derived from construction levels on bedrock adjacent to the fortification wall and underlying at least two buildings on the interior of the fortification. The ceramic material recovered from the new excavation suggests human presence on the hilltop from Middle Helladic II to Late Helladic IIIA1, providing a relatively restricted timeline for the fortified site. The earlier phases of use are indicated by

a burned surface level on bedrock, buried under a major leveling fill associated with the construction of the fortification wall. This large-scale project represents a considerable investment of labor and capital, possibly motivated by expanding networks of interaction both within and outside of the valley. Later, portions of the settlement may have been given to funerary use. Though burials of neonates are common throughout the excavated areas and are likely contemporary with occupation, a concentration of burials especially in the northern rooms may indicate at least partial abandonment, with the center of habitation ultimately shifting to the valley below. In general, this sequence of events corresponds well with other Early Mycenaean sites, which seem to experience a rapid series of constructions and abandonments particularly in the so-called Shaft Grave period. Though it is too early to extrapolate a detailed account, the apparent abandonment of the settlement may correspond to the development of other centers in the area, and perhaps even to Pylian intervention and the organization of the Further Province.

A Middle Helladic III to Late Helladic I Phase 1 Pottery Kiln at Mitrou, Central Greece

Aleydis Van de Moortel, University of Tennessee

In 2008, excavators of the Greek Archaeological Service and the University of Tennessee dug an approximately 6m deep trench at the prehistoric site of Mitrou, East Lokris, exposing a long stratified series of four superimposed Middle Helladic and Late Helladic houses with 16 successive clay floors and multiple floor lenses. This sequence helped C. Hale to distinguish seven Middle Helladic ceramic phases at the site, and Hale and S. Vitale to subdivide the Late Helladic I phase into four ceramic subphases.

Subsequent stratigraphic study by the present author has shown that a fairly large potter's kiln had been dug into the second floor of Building S and covered by the third floor of that building. These floors provide a terminus post quem for the construction of the kiln of MH III and a terminus ante quem for its last use in Late Helladic I phase 1.

Part of this kiln was excavated, but it had been very disturbed and was not identified during excavation. A section of the remaining part of the kiln is visible in the scarp of the trench. No pottery has been identified as having been fired in this kiln. The kiln was of the updraft type and had a round firing chamber with a perforated clay floor and possibly an antechamber. The scarp section and the configuration of the excavated remains indicate that the firing chamber was at least 2 m long.

Comparisons are drawn with other known Bronze Age kilns from the Greek mainland and elsewhere in the Aegean in an effort to reconstruct the capacity and other characteristics of this kiln. In addition, spatial and contextual analysis is conducted to argue that this kiln was located in a nonelite context, and to understand better the role of ceramic production in Mitrou's society during the final Middle Helladic phase and the beginning of the Late Helladic I phase, when a visible political elite emerged in the settlement.

The Palace of Nestor at Pylos, 2017
Sharon R. Stocker, University of Cincinnati, and *Jack L. Davis*, University of Cincinnati

The third of five seasons of renewed excavations at the Palace of Nestor took place in May and June of 2017, with trenches opened both on the acropolis and in the Tsakonas field, between the acropolis and Tholos Tomb IV. Focus continued to be on phases of the site earlier than the final palace period of the 13th century B.C.E.

Two areas of the acropolis were explored in detail: The first was an area immediately adjacent to the Northeast Building to the northeast. There we found a thick layer of stones fallen on a surface contemporary with the destruction of the palace. The stones were covered by a layer of oily black earth containing sherds of the Early Iron Age. The character of this soil may be attributed to its long exposure to the elements, after final abandonment of the small Iron Age settlement established in the area of the Mycenaean palace. The second area explored in detail was northwest of the Main Building, to the north and east of Circular Building 87. There was uncovered a maze of walls and drains, with ceramic deposits as early as Late Helladic I. One surprise was a small pit containing cremated animal bones, similar to residue from sacrifices found elsewhere in the area northwest of the palace and in Archives Room 7. Another was a fragment of a Linear B tablet that stylistically may be earlier than the final palace period. We note also that there appears to be no evidence whatsoever in this area for cultic activity in the Early Iron Age or Archaic period, as recently proposed by Frederick Cooper and his colleagues.

Investigations in the Tsakonas field unsuccessfully pursued leads suggested by the results of remote sensing. We were successful, however, in uncovering parts of a building complex that appears to have been the focus of ritual in Late Helladic IIIA; among the finds was a large female terracotta figure. Nearer the acropolis we discovered a deeply buried Middle Helladic I wall, probably related to structures uncovered in 1959 by Marion Rawson in the Petropoulos field.

In addition to finds from 2017 we review progress in conserving finds from the Grave of the Griffin Warrior, highlighting a spectacular combat scene on an agate seal that is the most detailed representation of human physiognomy ever found in a context dating to the Aegean Bronze Age.

SESSION 1D: Colloquium
Current Approaches to the Materiality of Texts in Graeco-Roman Antiquity

ORGANIZERS: *Ilaria Bultrighini*, University College London, and *Erica Angliker*, Columbia University

Colloquium Overview Statement

Whereas the study of written sources has traditionally focused on content and has thus often overlooked their material support and physical setting, the past decade has seen a growing interest in the material dimensions and sensory

experiences related to the practice of writing in antiquity. In this respect, the study of epigraphic evidence has undergone a great change, as it now looks not only at the physical context of inscriptions and their material support but also at their display, visualization, aesthetic, and the interaction between inscribed texts/monuments and readers/viewers.

These initial areas of study have ramified in multiple directions. New issues have emerged, such as the ways in which specific literary features of inscribed epigrams were intentionally used to provoke emotional responses in readers, and the means by which materials, tools, and technological choices involved in the production of writing relate to the expression and meaning of its content.

Building on recent work on the "materiality of texts" in antiquity, this colloquium brings together papers that explore various ways in which the combined study of texts and their material and visual aspects can contribute to our growing understanding of the various layers of meanings attached to written evidence as well as the ways in which the ancients approached and perceived writing. Our case studies stretch across the ancient Mediterranean world, covering a broad chronological span: from the Late Bronze Age and the inception of writing in the Aegean to late antiquity and the visualization of writing in Early Christian faith and practice.

The first paper looks at the origins of Cretan literacy in the second millennium B.C.E. By pointing out the existing relationship between local iconography—especially as expressed on seals and sealings—and proper script, the paper offers a better understanding of how literacy on Crete developed from images and symbols that often bore recognizable references to objects present in the natural world. The next three papers explore various aspects of the relationship between literary and inscriptional epigrams in ancient Greece while focusing on various contexts and periods, from the Archaic to Roman era. The second paper argues that elegy, which gained popularity epigraphically after the mid sixth century B.C.E., was better suited to the inscriptional form and thus led to a more effective complementarity between text and monument than did its hexametric and iambic antecedents. The third paper analyzes deictic strategies of interaction with the material context of display in Greek epigrams and cult hymns. During the literary development of both genres, texts were lifted out of their performative contexts in order to be continually recontextualized and reperformed by any reader. The fourth paper examines the role of weapons in the corpus of funerary epigrams for soldiers of the Hellenistic and Roman periods and the relation between text and representations of weapons on grave monuments. The fifth paper brings us to Roman Tripolitania and shows how a study of the linguistic and syntactic features of a bilingual text (Latin and Neo-Punic) inscribed on the Theater of Lepcis Magna, combined with a visual analysis of the material presentation of the inscription and overall monument, allows for a more comprehensive interpretation of the text itself. The final paper investigates the uses and meanings of the "light, life" formula in late antiquity. Inscribed on a variety of objects and buildings, this formula was written in the highly iconic shape of the Christian cross and was, therefore, simultaneously verbal and visual.

Collectively, the papers show that the materiality of texts can be conceived and approached in a number of ways and in a range of contexts. They also demonstrate

how the study of texts coupled with that of their physical and visual dimensions can considerably enhance our understanding of written evidence and the ancient perception of writing.

DISCUSSANT: *Joseph Day*, Wabash College

Elegy, Epigram, and the Complementarity of Text and Monument
Joseph Day, Wabash College

The relationship between "literary" elegy and elegiac epigram in Archaic and Early Classical Greece has been much discussed, long ago by Gentili among others, more recently by Aloni, Aloni and Ianucci, Bakker, Bowie, Cassio, Faraone, and Sheppard. Scholars have not, however, sufficiently explored how the epigraphic adoption of elegiac forms and wording affected the relationship between epigram and monument. I argue that elegiac epigrams, gaining popularity from the mid sixth century, complemented their monuments more effectively than their hexametric and iambic forebears did. Elegy, having evolved at least partly in intimate situations like symposia, developed features that, when transferred to epigram, helped produce desired responses in passersby who stopped to behold the inscribed object and read its inscription. I consider three such features in verse epitaphs, where elegiac form first appeared and gained popularity epigraphically: dialogic grammar, emotional heightening, and the framing of images.

First, dialogic or audience-oriented grammar. Exhortatory elegy, for example, is replete with deictic grammar designed to fit or work within—or to make vividly present for an audience—the face-to-face communication of poetic performance. Callinus (1.1–4 W) and Tyrtaeus (11.7–10 W) address audiences with vocatives and second-person verbs; Solon (4.30, 4a W) and Theognis (237) speak authoritatively with first-person singulars. When adopted by epigrams, such dialogic language served well to anticipate and complement interactions between passersby and inscribed objects. For instance, a command directed to the passerby in *CEG* 27, Στῆθι… Κροίσο(υ) παρὰ σῆμα, "Stop by Kroisos' grave," perfectly complements a wayfarer's experience of the arresting kouros atop a mound beside the road. Or again, the first-person verb of lament in the Arta epigram (*SEG* 41.540A, ὀλοφύρομαι) is deictically open: any passing reader becomes a mourner, authoritatively addressing fellow citizens (ἴστε, πολῖται, "Know, citizens") in a way that complements the physical authority of the spectacular monument.

Second, emotional heightening. Emotion is no stranger to elegy. Friendship, for example, is important in the Theognidea, expressed with various φιλ- words, including φιλημοσύνη (v. 284), an Ionic coinage designed for the elegiac pentameter. Its several appearances in elegiac epigram are, therefore, interesting. In epitaphs, φιλημοσύνη is an incitement to sadness or pity for an emotional bond that death has severed (*CEG* 32; *SEG* 48.1170, 49.505). In Mnasitheos' epitaph (*SEG* 49.505), Pyrrhichos is said to have erected the stele ἀρχαίης ἀντὶ φιλημοσύνης, "for the sake of/in return for long friendship/love." If this φιλημοσύνη refers to a homoerotic relationship between Mnasitheos and Pyrrhichos, the text complements the relief images of the youth, flower, and rooster on the stele. Text and image together

enable passersby to experience something of Pyrrhichos' emotional state when he commissioned the monument (Estrin).

Third, the framing of images. Elegy loves striking visual images, which it often frames with dialogic and emotional passages that guide an audience's responses. This framing sometimes refers literally to seeing, as in Tyrtaeus 10 W, where the command to the young warriors not to abandon their elders is followed by the unforgettable image of a graybeard dying in the front rank (21–7): αἰσχρὰ τά γ᾽ ὀφθαλμοῖς καὶ νεμεσητὸν ἰδεῖν, "shameful things for the eyes and a cause for wrath to see" (26). On grave monuments featuring figured art, elegiac epigram borrowed elegy's ways of framing images to guide viewers toward specific emotional responses. Sometimes the seeing is explicit, as in *CEG* 51: οἰκτίρω προσορῶ[ν] παιδὸς τόδε σῆμα θανόντος, "I pity as I look on this sema of a boy who has died."

The sixth-century adoption of certain features from literary elegy created effective new means of doing what epigram had always done to frame inscribed objects. Simply naming objects, relevant persons, and functions such as marking a grave gave way to the articulation of an interaction between object and passerby, a higher emotional tone, and the guiding of viewers toward desired responses.

Farewell to the Arms—Farewell in Arms: Weapons on Stone and in Inscriptional Epigrams in the Hellenistic period
Silvia Barbantani, Catholic University of the Sacred Heart (Milano)

Recent studies, especially those focusing on Greek monuments of the Classical and Early Hellenistic period, have explored the impact of material aspects of inscribed poetry and prose (e.g., text layout on the stone, use of specific scripts, interaction with iconographic representations on the same monument, architectural setting) on the viewer's feelings and perceptions; in the last few years research on epigraphic poetry has also emphasized the effects of poetic words on the emotions of individual readers, as well as of the community, they belonged. Within this framework, I analyze, through a few case studies, the treatment of an important element of epic imagery—i.e. weaponry—in the corpus of funerary epigrams for soldiers of the Hellenistic and Roman periods. I discuss the importance and frequency of the appearance of weapons in funerary poetry and its relation—if any—with representations of arms on gravestones and monuments. As I have observed elsewhere, military epitaphs of the Hellenistic period indulge in gory and realistic imagery of battles less frequently than expected and instead mostly rely on standard epic and elegiac formulas; descriptions of the dramatic circumstances of death are often avoided in favor of a heroically transfigured representation of war expressed through the traditional language of centuries-old poetry: the epitaph is meant to elicit in the readers feelings such as sadness and pride, rather than fear and horror, and to present the fallen youth as the latest in a line of epic heroes fighting for their poleis and as a model for his fellow citizens. One of the most common features of poetic epitaphs for soldiers (including citizens, mercenaries, and soldiers belonging to royal armies) is the celebration of the military virtues (*arete*) of the deceased; on the other hand, with the exception of the spear—which appears occasionally in epitaphs and often in encomiastic poems as a symbol of mastery in warfare and of political power—weapons are not normally mentioned;

it is therefore important to examine the instances in which weapons appear and to assess their significance in the portrayal of the deceased. Moreover, when they are not mentioned in the epitaph, weapons are occasionally represented on the funerary monument itself, in the form of reliefs or paintings, in the context of a battle scene (e.g., in Bithynian stelae), or carried by the standing deceased, or simply as isolated objects, as symbols of his profession or social rank in life. Finally, I compare the rare occurrence of weapons in inscriptional funerary poetry with their strong presence in dedicatory epigrams, where arms are sometimes assimilated to the gods of war (e.g., ὁ φιλαίματος Ἄρης in *AP* 7.226.3) and attributed a ferocious nature as instruments of death—as already happens in the Homeric poems.

Iconicity in Context: The Image-Bound Origins of Aegean Writing
Silvia Ferrara, Sapienza University of Roma

The focus of this contribution is an analysis of the development of the Aegean writing tradition in the second millennium B.C.E., starting from its highly iconic origins. The main question addressed in my previous research revolved around a synoptic understanding of origin, purpose, and perception of the earliest attestations of writing, which were still a desideratum because to this day several Aegean scripts are undeciphered (Cretan Hieroglyphic, Linear A, and Cypro-Minoan). Yet the necessity still lingers to investigate the context at large for the inception of writing in this part of the world.

Attested from the beginning of the second millennium B.C.E., the introduction of writing on Crete coincides with the critical phase of transition that led to the emergence of complex hierarchies embodied in "palace" structures. Three key points are considered: (1) the context of its creation, (2) the dynamics linked to its formative stages, and (3) the high iconicity of its signs with referents in the natural world and their perception by both literate and illiterate Cretans. This has implications for the selection of the script signs from a preexisting pool of icons and symbols and their comprehension as communicative devices.

To address these issues, the following lines of inquiry are developed:

1. Context and sociocultural significance. From a political standpoint, the period leading up to the first palaces was one of instability among different groups and the development of a budding social hierarchy. In this uncertainty, seals, which represent the earliest medium on which writing appears, tend to acquire a social role, working as emblems that score social position and strengthen a specific sense of group affiliation. Symbols of status and icons drawn from faraway exotic realms show this dynamic of social tension, and the creation of script could fit into the interstices of group competition.

2. Inception and medium. There is scope to study the Cretan hieroglyphs as a semiotic system at large, one fundamentally tied to a reservoir of symbols that may have less to do with language coding in the strictest sense than with the conveyance of messages in the same "pictographic" way that proto-cuneiform of Uruk IV or proto-Egyptian of the 0 Dynasty may have done. How close is a relationship between the local iconography, especially expressed on seals and sealings, and the proper script?

3. Perception and iconicity. All first scripts that are strongly implicated with images have potentially recognizable references in objects present in the natural world. They interact closely with our visual cognition. Studying sign-shape selection and understanding the underlying principles that lead to their selection and configuration is therefore crucial to understanding how literacy develops from icons. This has, in turn, the potential to offer tremendous insight into human cognition, to ultimately answer: What is the connection between marks/emblems/symbols/icons and true writing?

These paths of investigation are crucial points of departure for understanding the beginnings of Cretan literacy. They also shed light on the phenomenon of early writing in more general terms, from a multidisciplinary perspective that seeks to advocate a synergic collaboration between cultural evolution, cognition, archaeology, epigraphy, and linguistics.

Formulating Faith on Objects and Buildings: The "Light, Life" Formula in Late Antiquity
Sean V. Leatherbury, Bowling Green State University

Inscriptions were omnipresent on Roman and Late Antique objects and buildings and varied wildly in length and complexity. While epigraphers have begun to consider the meanings of these texts in their contexts, scholars still tend to overlook some of the most common inscriptions in Early Christian contexts, short formulas derived from the New Testament or the liturgy, despite the fact that these texts would have been accessible to a much wider audience than epigrams commissioned by the elite. This paper examines the uses and meanings of one such underexplored formula, "light, life" (φῶς ζωή), in the Late Antique period (ca. 300–600). Derived from the language of the Gospel of John (especially John 1:4, "In him was life, and that life was the light of humankind"), the two-word formula reminded readers of Christ's role as savior. However, the phrase was written not as one line of continuous text but in the shape of the cross, forming a literal "crossword," the central letter omega joining the two words. This verbal formula was also a visual one, a kind of "logo" of Christ, a logo for the Logos, a novel Christian formulation that presented a more complicated "abbreviated" icon of the Christian god incarnate than those of the Roman gods, whose names appear as isolated letters (e.g., "I" for "Iuppiter/Jupiter"). First, this paper places the formula within the context of classical word games (e.g., *technopaegnia* or pattern poems) as well as early Christian alphabetic or word symbols for Christ (e.g., alpha–omega, Chi-Rho, or acronyms such as ΙΧΘΥΣ), reveals the connection between the formula and Early Christian prayers, and argues that the symbol acted as a devotional aid, triggering viewers to recite prayers aloud. Second, (briefly) charting the symbol as it moves from portable objects—especially crosses, including larger processional crosses and crosses worn as pendants or earrings—to garments and onto more permanent supports, such as the mosaic floors of buildings, the paper enumerates the formula's changing though linked visual/verbal significances across a range of material and spatial contexts.

Strategies of Ocular and Imaginary Deixis in Descriptive Greek Epigrams

Federica Scicolone, King's College London

The devices of *Demonstratio ad oculos* (pointing to something that the reader could see) and *Deixis am Phantasma* (addressing imaginary referents in the mind's eye of the reader) in Greek epigrams that describe their combined monumental supports reflect the various types of interactions between epigrammatic texts and their material contexts of display.

As observed by Bühler (*Theory of Language* [Amsterdam 1990] 139) and Edmunds (*Philologia Antiqua* 1 [2008] 85-6), *Deixis am Phantasma*, which usually addresses "constructive fantasies" on the poet's part, can also refer to "real" objects that are no longer visible. These referents become "imaginary-imaginable" to the reader, who appeals to memory to recall any past perceptual experience of the addressed referents. Depew (*Matrices of Genre* [Cambridge, MA 2000] 59-79), Calame (*Arethusa* 37.3 [2004] 440-1) and Cosgrove (*An Ancient Christian Hymn* [Tübingen 2011] 77-80) observe a similar shift in hymnic context, where indicators of extratextual deixis (e.g., Cretan hymn to Zeus-Kouros, κρέκομεν [7]; στάντες ἀείδομεν [9]) gradually lose their ocular reference to the performative dimension of the poem and, in the literary development of the genre, address fictional referents that can be actualized out of the text's situational context through reading (see, e.g., Callim., *Hymn to Demeter*, χαῖρε, θεά, καὶ τάνδε σαώ πόλιν [134], ἁμίν [121], ἵλαθί μοι [138] for the progressive appropriation of the chorus' voice by the poet).

Through the analysis of selected instances of inscriptional and literary epigrams, I argue that the shift from ocular deixis to *Deixis am Phantasma* in literary tradition successfully applies to the genre of epigram. Here the "decontextualization" and "entextualization" of the content of the epigram is enhanced by its "performance" (i.e., through reading it and viewing the support on which it was inscribed), which "puts the act of speaking on display . . . and opens it to scrutiny by the audience" (Bauman and Briggs, 1990, 73). In the light of this self-referential move, by which the epigram is lifted out of its situational context, *Deixis am Phantasma* allows the reader continually to recontextualize the abstracted epigram in the absence of its original epigraphic referents.

This emerges from the comparison of the externally referential ἔστασέμ με and ἔνθεν in SGO 01/10/01, pointing to the dedicated statue and to the combined sundial, with the strategies of *Demonstratio ad oculos* employed in Posidippus 52 A.–B. (Τίμων, ὃς σκιό[θηρον ἐθή]κατο τοῦθ᾽, . . . νῦν ἴδ᾽ ἐκ[εῖ κεῖται, "Timon, who [set] up this sun[dial], . . . now [lies] there") to transfer the function of the sundial (ἵνα μετρῆι ὥρας, "to measure the hours") to a parthenos (π]αρθένον ὡρολογεῖν," the maid (will continue) to read the hours"; κούρη· παρὰ σήματι τούτωι . . . μέτρει τὸν καλὸν ἠέλιον, " o girl, next to this tomb . . . measure the beautiful sun"). *Inscr. Métr.* 49 points to the physical inadequacy of the inscribed funerary stele that, although small (μικρά γε), "supports" the splendor of the deceased (λέγεις δ᾽ ὅτι παντὸς ἄριστον . . . ὅσον ἄχθο[ς ὑ]πέστης, "say that the noblest among all . . . such is the load that you bear"), while in *Ep.* 15 Pf. = 60 G.-P., Callimachus dramatizes the inadequacy of the verbal medium to complement itself ("Τιμονόη" . . . οὔ σ᾽ ἂν ἐπέγνων, εἰ μὴ Τιμοθέου πατρὸς ἐπῆν ὄνομα στήλη καὶ Μήθυμνα, τεὴ πόλις, " 'Timonoe' . . . I would not have known you, if the name of your father, Timotheus, and your city, Methymna, had not been upon

your tomb"). Myth informs the visual experience of Isadora's sculpted shell in *Inscr. Métr.* 86 (πρεσβυτάτη Νίλοιο θυγατρῶνἤρξατο Νιλώ, κόγχον τευξαμένη, "Nilo, the eldest of the daughter of Nile, began by fashioning a shell"), while in Callimachus' *Ep.* 5 Pf. = 14 G.-P. the imaginary nautilus shell describes its former existence as a real-life mollusk (Κόγχος ἐγώ . . . παλαίτερον· ἀλλὰ σὺ νῦν με, Κύπρι . . . ἔχεις, "I was a shell before . . . but now you own me, Kypris').

The examination of the deictic strategies operating within the selected texts reveals the occurrence of a shift from externally referential deixis to imagination-oriented deixis in literary epigram. Similarly as in hymnic genre, this shift contributes to achieve a "performative" accomplishment, providing the reader with the required deictic orientation continually to re-enact the decontextualized poetic text. In doing so, I suggest, epigrams deploying strategies of Deixis am Phantasma prompted ancient audiences to develop a notion of fiction that affected the subsequent production of inscribed epigrams, and the way in which their materiality was perceived and construed in antiquity.

Textual Visuality: IPT 24a and IRT 321 at the Theatre of Lepcis Magna as Case Study
Catherine E. Bonesho, American Academy in Rome

Lepcis Magna is one of the most intact cities from the Roman Imperial period and provides exceptional data for understanding Roman provincialism and bilingualism. Among the bilingual inscriptions found in that region are those featuring parallel texts in Latin and Neo-Punic. This study presents an analysis of the Neo-Punic and Latin inscriptions on the dedicatory piece of the lintel of the Theatre of Lepcis Magna*: Inscriptions of Roman Tripolitania* (hereafter IRT) 321 and *Punic Inscriptions of Tripolitania* (hereafter IPT) 24a. Recent studies on this inscription have typically pointed to the discrepancies in information between two parallel texts and the maintenance of formulaic conventions to argue that the Latin and Neo-Punic co-texts are "bi-versions"—that is, parallel but unrelated versions. One of the main differences between the Neo-Punic text and the Latin text is the latter's imperial formulas. The Neo-Punic inscription lacks this introduction, which provides a date and an explicitly Roman imperial context. Because this is the major difference between the two texts, many scholars have seen this discrepancy as indicative of the independence of the Neo-Punic vis-à-vis the Latin text. However, this view rests on the assumption that nothing present on the lintel is in any way equivalent to the imperial formula. While the details of the imperial formula may be lost, such as the terms of office and the other titles of Augustus, the overall purpose of the imperial formula to assert connection to Rome is maintained in the presentation of the inscription, the lintel, and the building itself. By merely looking at the theater and the lintel one recognizes its Roman structure and purpose. Therefore, by incorporating a visual analysis of the material presentation of the inscription and overall object, I argue that the imperial formulas that appear to be missing from the Neo-Punic inscription can actually be found on the object as a whole. This analysis of the complete material object thus silences the claim that the two texts do not contain the same information. I additionally argue that the maintenance of Neo-Punic genre conventions in IPT 24a does not preclude the fact that

the two texts are related; rather, evidence from throughout Lepcis Magna shows that Neo-Punic inscriptions for the most part maintain their inscriptional conventions for a variety of genres. I also provide an analysis of the syntax of IPT 24a and find that the syntax of the Neo-Punic text closely resembles that of the Latin inscription instead of conventional Semitic syntax. Finally, through an analysis of the material presentation of the inscriptions, I find that the Latin inscription was intended by the commissioner to be visually primary compared with the Neo-Punic text because it appears at the top of the lintel and fills approximately 70% of the overall frame. Therefore, given the similarity in information presented, the Latin-influenced syntax of the Neo-Punic text, and the material presentation of the Latin text as visually primary, I argue that it is unlikely that these are independent texts; rather, the Neo-Punic should be understood as a translation of the Latin inscription.

SESSION 1E: 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 wildfire. 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 it 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

Memory, Types, and the Transmission of Culture
Alicia Jiménez, Duke University

This paper explores the role of standardization and types of things as long-term memory devices in the Roman province of Hispania. Archaeological analysis of Roman colonialism leans heavily on typologies and similarities, on catalogues of things that look almost the same, even if variation inside a single type is acknowledged. And yet, despite the long-standing tradition of typological studies, analyses of the meaning of style in art history, style variation, and the forces that shape the "evolution" of artifacts, the role of standardization in the transmission of culture is still relatively ill-defined from a theoretical point of view in archaeological research. How is the standard created? What does "ubiquity" mean in memory terms? What happens when a society is flooded with a type of object easily recognizable?

When people resort to self-conscious sets of aesthetic choices, those choices are to be understood as a response to objects of the same type that are easily remembered or as "comments" on another class of objects when a thing imitates the design of a similar artifact made from another material, in the case of skeuomorphs. In that sense, the imitation of the shape of metal containers or even basketry in Minoan ceramic during the Middle Bronze Age is a disclosure of the change in the traditional raw material of a particular type of artifact as much as a visual representation of the genealogy of the object. Things themselves, the palimpsest of past and new forms, create the grounds for our understanding of them, establishing links with perceived, suggested, claimed, or real sources, as Christopher Gosden has pointed out. The object is the model, not a preexisting Platonic ideal of how things are. But it is precisely the reference to a precedent that supposedly looks the same that allows change to happen. In the late 1990s, Alfred Gell showed how stylistic shifts occur by the least difference principle, through variations that still allow us to see links between old and new objects. Change of this kind is "invisible" to the eye. It occurs thanks to apparent similitude, relying on memory and stereotype.

The Pasts of "Others" in the Roman West
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 in 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 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" (Brow 1990). The Saguntine appropriation of ethnographic fictions of Hercules as founder-hero reflects western innovations within long-standing 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 "role-playing" 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.

Tartessos, Regional Memory, and an Alternative "Classical" Past
Carolina López-Ruiz, The Ohio State University

Is it possible to recover the historical or even the perceived pasts of cultures from whom we lack preserved written narratives? The challenges of this task are obvious when we look at the preclassical indigenous cultures of Iberia, Sardinia, Italy, and other areas of the Mediterranean. Through archaeological remains and philological-literary investigation of Greek and Roman sources, however, we can

find traces of local identities based in part on a usable past cherished by communities even when they adapted to and incorporated Graeco-Roman worldviews. My paper looks into such signs in the region of Tartessos in southwest Iberia. I argue that when Greek and Roman authors refer to Tartessos as an old, sophisticated, and self-conscious culture for the region of Roman Turdetania, they are not reinventing local identity but engaging with an existing perception of the past that engages with preclassical traditions. This regional pride can be read, for instance, in the intentional reuse of indigenous Bronze Age relics in Tartessic buildings until the fourth century B.C.E. (e.g., Cancho Roano); in the persistence of a writing system and indigenous languages well into Roman times (cf. also Strabo's [3.1.6] testimony about the Tartessians' "documents of ancient records, poems, and metrical laws six thousand years old"); and in the traces of local legends that include Phoenician traditions (Herakles-Melqart) as well as unique figures (e.g., kings Gargoris and Habis), even if eventually framed and passed down within a Graeco-Roman literary tradition.

In a circular way, however, as identities are always under construction, the local idea of Tartessos fed from the spread of the image of Tartessos in Greek literature (e.g., Anacreon, Herodotos), and Tartessos became an icon to be contested and appropriated (e.g., by the Phoenician city of Gadir/Cádiz). Moreover, the Phoenician and Carthaginian presence had been formative in Tartessic culture since the eighth century B.C.E. and was a point of reference even in Roman times. Summing up, the "legendary" Tartessos of the classical sources was a real part of the region's curated memory, even if entangled with Phoenician and Graeco-Roman genres and mythologies. This paper challenges us to retrieve locally rooted views from a corner of the ancient Mediterranean where indigenous, Phoenician, and vague Hellenic echoes merged; an "alternative," multicultural Mediterranean that did not totally disappear with the triumph of Rome in the West.

Colonial Memory and Ritual Practice in the Phoenician World?

Josephine Quinn, Worcester College, University of Oxford

This paper addresses the phenomenon of alternative memory, or how people creatively reimagine their own pasts under new relations of power. It juxtaposes different stories told by Phoenicians in the western and eastern Mediterranean to harness the power of social memory and forgetting in colonial contexts, focusing in particular on the role of child sacrifice and tophet sanctuaries in the creation and rejection of different colonial pasts to suit contemporary notions and needs.

The first part of the talk looks at the tophets established with the first Phoenician settlements in the central Mediterranean in the archaic period. On the one hand, these drew attention to the colonial obliteration of local memories and traditions by preserving them: at Tharros in Sardinia, for instance, the sanctuary was established amid the visible remains of a preexisting local settlement. On the other, the rituals and artifacts of the tophet reproduced those of the homeland but enlarged on them in a new spatial context, the tophet itself, creating the appearance of continuity in a context of profound change. Between these strategies, the western settlers negotiated a specific colonial experience in ways that worked to emphasize

their distance from both their old and new homes. This is not the mark, I suggest, of an official colonization program run from Tyre or any other Levantine city-state but a migration enforced by social, political, or economic necessity, an interpretation that accords with the Carthaginians' own foundation myth of Dido's flight from Tyre to the west.

In the second part I return to the homeland in the fourth century B.C.E., where under siege from Alexander the Tyrians themselves not only adopt Dido as a model of bravery and nobility in the face of danger but discuss whether they should return to their old practice of child sacrifice to placate the gods. I argue that this memory, the first we hear of this practice at Tyre itself, is a product of a new notion of an old relationship between Tyre and Carthage: the western city, now in the ascendant, has constructed an archaic colonial and religious network involving Gadir and Utica as well as Tyre that justifies contemporary Carthaginian ambitions for empire in the West. The fact that Gadir and Utica do not have tophets is our best clue to the artificiality of this fourth-century memory of the ancient "Koine of Melqart."

Memory and the Moveable City in Ionia
Naoíse Mac Sweeney, University of Leicester

Cities in antiquity were mobile. In Ionia between the Archaic and Hellenistic periods, several urban centers were physically relocated—their old sites abandoned in favor of new settings. The city of Clazomenae shifted from a location on the mainland to an offshore island during the fifth century B.C.E. The city of Ephesus was moved from the area around the Ayasoluk Hill to what was a coastal location in the third century. And the inhabitants of Miletus and Colophon were forcibly removed in the sixth and the third centuries, respectively, only to return and rebuild their cities with a changed geographical focus. This paper considers how the inhabitants of these "new" cities engaged with the physical remains of "old" settlements. These remains of these "old" settlements were usually still visible and often lay in close proximity to the new urban core. The paper considers evidence for activity around these remains, including continuity of use and its limitations, changes in use, memorialization, total abandonment, and cases of eventual re-occupation. In addition, it considers how discourses of civic identity and local history had to change to accommodate relocation, and how the physical and geographic fallout of that rupture had to be incorporated within wider narratives of the city's past.

Amnesia Anatolica: Comparing Forgettings in Hattusas and Ankara
Müge Durusu Tanrıöver, Bilkent University, and *Felipe Rojas*, Joukowsky Institute for Archaeology and the Ancient World, Brown University

The study of memory in the eastern Mediterranean during the Roman period has become so pervasive that one of the scholars most closely associated with its rise recently wondered whether there was any need to consider it a distinct endeavor, rather than an inevitable part of any historical and archaeological

investigation. Such self-assurance may be surprising not just to specialists working in, for example, Roman Iberia or Cyrenaica (where forgetfulness of the pre-Roman past has sometimes been said to be the norm) but also to those focusing on Anatolia and the Levant before the Archaic period or after Byzantium (when cultural ruptures allegedly curtailed people's "backward-looking curiosity"). Disciplinary boundaries and contemporary geopolitics have made certain forms of remembering (e.g., Pausanias elucidating the ruins of Mycenae) or forgetting (e.g., the alleged oblivion of the Hittites in Greek and Roman Anatolia) seem almost self-evident. But are they? This paper calls attention to the challenges and virtues of engaging in boldly diachronic archaeologies of memory. We examine several conspicuous and arguably paradoxical instances of forgetting of royal or imperial power in Anatolia. Our evidence comes from the Bronze Age to the contemporary period. Our main contention is that despite enormous cultural differences in our various case studies, interdisciplinary and comparative exploration of memory and forgetting in the region is not only desirable but also methodologically useful.

SESSION 1F: Colloquium
The Tetnies Sarcophagi at the Museum of Fine Arts, Boston: New Discoveries and New Approaches

ORGANIZERS: *P. Gregory Warden*, Franklin University Switzerland, and *Phoebe Segal*, Museum of Fine Arts, Boston

Colloquium Overview Statement

The two sarcophagi of the Tetnies family in the Museum of Fine Arts, Boston, rank among the finest examples of Etruscan sarcophagus production and are certainly the finest examples of Etruscan sculpture in North America. They were excavated at Vulci in 1846, made their way to the United States in the 19th century, and were eventually acquired by the Museum of Fine Arts. They have received scholarly attention not only for their artistic quality and monumentality but also because they both portray on their lids images of the conjugal couple that have been considered characteristic of Etruscan funerary representation. Also, the dramatic differences in style in the portrayal of two generations of the Tetnies family have been considered characteristic of the eclectic stylistic milieu of the late fourth and third centuries in Etruria. These two iconic sarcophagi have never been fully studied and published, but an extensive campaign of conservation by the Museum of Fine Arts from 2011 to 2013 has provided new evidence and the opportunity for comprehensive evaluation. This colloquium presents these new findings and proposes to situate the sarcophagi in their artistic, chronological, and archaeological context.

The first paper, "Discovery to Display: The 'Afterlife' of the Tetnies Sarcophagi," provides an overview of the modern history and reception of the Tetnies sarcophagi, from their discovery in 1846 in Vulci to their acquisition by the Museum of Fine Arts, Boston (and the Boston Athenaeum), in 1886 to their recent role in educational programming and future display at the museum. The second paper, "Coming to Light: The Conservation and Technical Study of the Tetnies Sarcophagi," presents

important new findings resulting from the cleaning and stabilization of the sarcophagi, including a previously undetected painted pattern on the larger, travertine sarcophagus. The third paper, "Some Linguistic Features of the Inscriptions on the Tetnies Sarcophagi," addresses three language-related topics that contribute to our understanding of the inscriptions on the Tetnies sarcophagi—morphological, syntactic, and phonological, all of which bring us a closer understanding of the social status of the Tetnies family. The fourth presentation, "Covering the Couple: The Social Significance of Textiles on the Tetnies Sarcophagi," explores the role of the textiles covering the married couples as powerful social symbols linked directly to the weddings and funerals of the Tetnies family. The final paper contextualizes the themes and iconographies found on the sarcophagi within the broader visual landscape of funerary art in Etruria.

Discovery to Display: The "Afterlife" of the Tetnies Sarcophagi
Phoebe Segal, Museum of Fine Arts, Boston

This paper gives an overview of the modern history and reception of the Tetnies sarcophagi, from their discovery in 1846 in Vulci to their acquisition by the Museum of Fine Arts, Boston (and the Boston Athenaeum), in 1886 to their recent role in educational programming and future display at the museum.

The two-year conservation campaign begun in 2011 occasioned a review of the circumstances under which they were unearthed in the Ponte Rotto necropolis at Vulci, land that had been awarded by Pope Pius VII to Lucien Bonaparte, the first Prince of Canino and Musignano and the brother of Napoleon I (and upon his death in 1840 passed to his widow Alexandrine). The paper discusses in detail the immediate recognition of the importance of the sarcophagi and the Bonaparte family's failed negotiations with the Papal States over a period of nearly 40 years. It also considers the acquisition of the sarcophagi by American diplomat and art critic James Jackson Jarves and the Boston public's enthusiastic response to them while they were on view at the American Exhibition of Foreign Products, Arts and Manufactures in 1883, shedding new light on the nature of collecting Etruscan, and more generally classical, art at the end of the 19th century, in the early days of America's leading museums.

The paper continues with a review of the art historical significance of the sarcophagi widely regarded as the two most important Etruscan stone sculptures in America—in particular the unprecedented and unparalleled level of intimacy portrayed on the sarcophagus lids. The next section of this paper examines the role of the sarcophagi in recent years as centerpieces of an innovative educational partnership with local hospitals, which uses works of art as prompts for discussions about the challenges and difficulties medical students will face as physicians. Exercises developed by Museum of Fine Arts educators and their physician-educator colleagues grew out of the recognition of the academic and humanistic benefits of analyzing and interpreting works of art in training the next generation of doctors. The implications of this approach to ancient works of art are explored. Until the 2011–2013 conservation campaign, which necessitated closing the Etruscan gallery at the Museum of Fine Arts, the sarcophagi had been continuously on view since their arrival in 1886. This paper ends with a discussion of future display strategies

and invites new thinking about how best to engage visitors even more deeply with these compelling works of art.

Coming to Light: The Conservation and Technical Study of the Tetnies Sarcophagi

C. Mei-An Tsu, Museum of Fine Arts, Boston, and *Richard Newman*, Museum of Fine Arts, Boston

A recent campaign to conserve the Tetnies sarcophagi at the Museum of Fine Arts, Boston, was undertaken with the primary goals of addressing structural weaknesses within the stone substrates and disfiguring surface grime that accumulated over decades of continuous museum display. Prior to cleaning, an in-depth technical analysis was carried out to identify the stone types and to chart trace remnants of pigments to effectively preserve them during the treatment process. Once a clear understanding of the original materials of manufacture was established, multifaceted cleaning systems, tailored to address the specific conditions of the travertine and volcanic tuff substrates, were designed to reduce the grime from the sensitive surfaces. Disfiguring losses were restored with the goal of visually unifying the sculptures, and weaknesses in the stone were strengthened through the combined use of acrylic adhesives and supportive steel mounts.

Identification of the pigments, most of which were undetectable to the naked eye, verified that the sarcophagi were ornately decorated in antiquity, and contributed to the limited published technical information on Etruscan painting techniques. Through the novel use of multispectral imaging techniques coupled with channel mixing in Adobe Photoshop, several painted borders, including a perspective meander on the base of the Larth Tetnies and Thanchvil Tarnai sarcophagus, were discovered. The perspective meander, though common in Roman art, is seldom featured in Etruscan art. The pattern, however, matches one prominently incorporated in the wall paintings of the François tomb, located in same necropolis in Vulci.

Some Linguistic Features of the Inscriptions on the Tetnie Sarcophagi

Rex Wallace, University of Massachusetts Amherst

This paper addresses three language-related topics that contribute to our understanding of the inscriptions on the Tetnies sarcophagi (Vc 1.91 and Vc 1.92 in Meiser's *Etruskische Texte*). The first topic is morphological in nature and involves a reexamination of the structure of the family name *tetnie*. The prehistoric form of *tetnie* is usually reconstructed as **tetienaie,* but this pre-form yields (unattested) *tetinie*, not *tetnie*-; cf. *ceisinie* from earlier **caisienaie-*. *Tetnie* must derive from a form whose medial vowels can be syncopated by regular Etruscan sound laws. A prehistoric family name **tetanaie*, based on the first name *tetana*, yields *tetnie* by regular phonological changes. The second topic is syntactic structure of inscription Vc 1.92. Funerary inscriptions in which familial relationships are expressed by a relative clause (pronoun *an*) with a passive verb (farθnaχe "was generated") and ablatives of agent are exceedingly rare, being found in three inscriptions in the entire Etruscan corpus, all recovered from Vulci (Vc 1.92, Vc 1.64, and Vc 1.93).

Although the relative clauses are usually translated as such, a better interpretation is possible. The idea is that the relative pronoun *an* introduces a "pseudo-relative" construction—that is, one in which the relative pronoun is the equivalent of a connective and an emphatic demonstrative pronoun. In support of this interpretation one can point to the fact that in Vc 1.64 and Vc 1.93 the connective *-c* is affixed to the relative pronoun (*an-c*), arguably for the purpose of overtly indicating the syntactic construction as a "pseudo-relative." The presentation concludes with discussion of a phonological feature peculiar to the *tetnie* inscriptions. Specifically, it considers the change of *-i* to *-e* before *-a*—for example, *arnθial --> arnθeal* (Vc 1.91) and *arnθials --> arnθeals* (Vc 1.92). This change is not common at Vulci, being attested in one other word in the Vulci corpus. The dialect of the *tetnie* family may be distinguished from other dialects spoken at Vulci in the fourth century by this phonological feature. In this case, the feature may serve as a marker of the speakers' elevated social status.

Members of the Tetnie family communicated their elite status visually by means of the arresting sculpture on the lids of the stone sarcophagi. The family expressed its social status linguistically, by means of the unique syntax in funerary inscription Vc 1.92 and by use of a distinctive phonological feature.

Covering the Couple: The Social Significance of Textiles on the Tetnies Sarcophagi
Gretchen Meyers, Franklin & Marshall College

The sculpted representations of husbands and wives on the Tetnies sarcophagi in the Museum of Fine Arts, Boston, are routinely celebrated as rare portraits of the intimacy of marriage in both life and death. On each a male-female couple lies together on the lid enclosed in a tender embrace beneath a covering. While many scholars discuss the images in terms of marriage, scant evidence for Etruscan marriage practices and the wedding ceremony itself survives. Bonfante (1989, 567) has observed that "they lie under a rounded tebenna which serves as a blanket, a symbol of their marriage." This paper builds on Bonfante's suggestion by engaging in both visual analysis and ethnographic comparison to reconsider and contextualize how the textile itself may indeed have served as a symbol of marriage beyond a simple covering for the husband and wife's conjugal embrace. The intentional dominating visual presence of textiles on the Boston funerary lids allows them to serve as the primary attributes for the married status of the deceased and may even refer to a specific role for textiles within Etruscan wedding and funeral ceremonies.

Although the exact nature of the depiction of the Tetnies couples is unique, the combination of textiles with male-female couples in Etruscan funerary representations is not. A brief examination of textiles in images of Etruscan couples reveals the repeated use of textiles as a visual unifier of not only the images' composition but also of the couples themselves. Careful juxtaposition of the portrayal of covered and uncovered figures emphasizes the textile itself as part of a ritual action concerned with the metaphor of enclosure and unity. This observation is then augmented with ethnographic parallels that demonstrate the role of luxurious textiles in marriage and funerary rituals as bride gifts or as funerary displays of family history and communal affiliation. In Etruscan society, where lineage is a key factor

in social dominance, I suggest that the funerary representation of cloth coverings with couples indicates a performative role for textiles in ceremonies staged at moments of familial transition. For the two sarcophagi in Boston, where sculpted textiles compose more than half of the lids, the cloth coverings represent more than modesty for amorous behavior; they also act as powerful social symbols linked directly to the weddings and funerals of the Tetnies family.

Contextualizing the Boston Sarcophagi: Amazonomachies, Women, and Men in Fourth-Century Etruria
Francesco de Angelis, Columbia University

The Tetnies sarcophagi from Vulci are exceptional not only thanks to their overall quality and the famous representations of marital couples on their lids but also for the richness of the imagery of their caskets: a meeting between husband and wife, travel scenes, fighting warriors, an Amazonomachy, as well as battles among wild animals, both fantastic and real. All these themes have parallels in the funerary art of Late Classical and Early Hellenistic Etruria. These parallels, however, have not been systematically analyzed to provide a comprehensive interpretation of the imagery of the sarcophagi.

This paper aims at contextualizing the themes and iconographies attested on the Boston sarcophagi within the broader visual landscape of contemporary sepulchral art in Etruria, thereby providing a more specific background against which to assess the choices that the Tetnies made for their own monuments. In particular, it focuses on the Amazonomachy, a theme that was widespread in southern Etruria in the second half of the fourth century B.C.E. This popularity has often been explained as reflecting the special status of Etruscan women, and more generally as the manifestation of a positive, and even respectful, attitude toward the female warriors of Greek mythology. The paper questions the usefulness of this interpretative framework and suggests that Etruscan Amazonomachies are better understood as expressions of an intensified awareness of (and anxiety about) male-female relationships in contemporary Etruscan society—an awareness that the Boston sarcophagi visualize in an exemplary way.

SESSION 1G: Colloquium
Musical Instruments as Votive Gifts in the Ancient Greek World

ORGANIZERS: *Sheramy Bundrick*, University of South Florida St. Petersburg, and *Angela Bellia*, Chair, AIA Archaeomusicology Interest Group

Colloquium Overview Statement
Among the main aims of archaeomusicology is the study of musical performance as an essential component of worship and ritual. The practice of dedicating instruments to the gods in the ancient Greek world—along with gurines of instruments, sound tools, and texts of song—is well attested by many sources, including a number of epigrams in the *Greek Anthology*, temple accounts, and the

discovery of instruments themselves during excavations, which often bear votive inscriptions. Worshipers or musicians tried to give a more lasting effect to the musical performance by dedicating instruments in honor of a god or goddess.

This colloquium aims to enhance our knowledge of musical instruments as vo- tive gifts by exploring and discussing the many different motives and often more than one explanation for their dedication. The six papers demonstrate how each instrument is not an isolated unit but a component of musical performance in cult considered as an offering to the divinity within the framework of the ritual ceremony. By combining diverse data, the first paper of the colloquium analyzes not only the role of the instruments found at the Sanctuary of Apollo in Delos but also the festive context of their dedication. The second paper deals with gender aspects of auloi playing in ritual settings viewed from the lens of votive gifts. Special attention is given to terracotta figurines representing players in order to trace patterns of sex, age, and possible status in the votive gifts. We then move to the third paper, which analyzes musical instruments and their models (miniature) that are dedicated by worshipers or musicians to female deities in various sanctuaries of ancient Greece. The fourth contribution analyzes written sources related to semantic and anthropological aspects of female agency in consecrating musical instruments, while the fifth paper assesses the sistrum in the Greek world during the Hellenistic period. It is used in Isiac processions and can be the attribute of the goddess, her priests, or the simple devotee. Finally, the sixth paper presents an aulos fragment found in the sanctuary of Malophoros at Selinus.

Together the papers cover different regions and a broad chronological span that ranges from the Archaic to Hellenistic periods. Furthermore, most papers present archaeological materials recently discovered or that have not been published before, presented here with permission.

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

Musical Instruments and the Festivals of Apollo
Erica Angliker, University of Zurich

Delos was home to one of the paramount sanctuaries of Apollo in ancient Greece. It thus attracted diverse communities during the festivals of Delia, particularly from the Aegean Islands. These festivals included extensive rituals, processions, choruses, and musical contests (one of the most important forms of dedication to the god). This paper aims to examine the context in which auloi were dedicated at the Sanctuary of Apollo; the status, conditions, and origin of their donors; and the importance of the instruments within the festivals. To do so, it looks at the unique, rich, and varied evidence related to auloi deposits and their use at the Sanctuary of Apollo on Delos.

This paper begins by examining the many epigraphic sources from Delos in which the dedication of auloi is mentioned. These can help us to reconstruct the situation in which these objects were dedicated and the status and condition of their various donors. Data drawn from inventories are then integrated with information about two auloi workshops on Delos where several of these instruments have been found.

Next, the paper turns to the many iconographical motifs that depict musical instruments on vases dedicated at the sanctuary and attempts to assess their use during rituals. It also considers the *Homeric Hymn of Apollo*, where crucial information about the music festivals is reported. Finally, this evidence is compared with what is known about an aulos on the neighboring island of Paros, where it was found among votives at a sanctuary of Apollo Delion, whose festivals were connected to those on Delos. By combining diverse data, this paper therefore reconstructs not only the role of the auloi in the festivals of Apollo but also the context of their dedication.

Gender Aspects of Ritual Auloi Playing

Erika Lindgren Liljenstolpe, Uppsala University (Sweden), and *Jenny Högström Berntson*, University of Gothenburg

Studies on attitudes toward music playing in ancient societies show a variety of ideas on how women and men should and should not play music. Different kinds of music performance and instruments suited different contexts and it often had a strong connection to gender and status. The dedicatory inscription in the *Greek Anthology* (6.51) portrays a picture of an old man dedicating his instruments, including the aulos, in a non-flattering way as "womanish" and his instruments are described as "stimulants of his madness". This inscription highlights the fact that auloi playing was regarded differently due to the nature of the ritual it was part of. In votive contexts, auloi appear in several forms, often in group scenes where the aulos is played by the *choregos*. In this setting the connotation of the aulos appears to be very different from the one described in the *Greek Anthology* (6.51). By applying theories on materiality and iconography this paper draws attention to intersectional patterns of gender in connection to auloi playing in ritual settings, viewed from the lens of votive gifts. Special attention is given to terracotta figurine groups of dancers that include auloi playing, in particular material from the Kokkinovrysi shrine in Corinth.

Musical Instruments and Their Miniature Models as Votive Offerings to Female Deities in Sanctuaries of Ancient Greece

Angeliki Liveri, Ministry of Education, Research and Religious Affairs (Greece)

This paper presents musical instruments and their models (miniature) that are dedicated by worshipers or musicians to female deities in various sanctuaries of ancient Greece. References in written sources are compared and combined with archaeological finds. Some musical instruments are accompanied by votive inscriptions that name the dedicator, the goddess, or the dedication's purpose. Athena, Artemis, and Hera received musical votive offerings more frequently than other goddesses for various reasons, mainly for age, protection, health, success, etc. The people dedicated to the above-mentioned goddesses musical instruments such as cymbals, tympana, rattles, lyres, auloi, and salpinges.

This paper attempts to classify the votive instruments by goddess and also to show the relationship of the goddess with each, comparing—where it is

possible—with pictorial depictions of the goddess playing the mentioned instruments and/or their use in musical performances in her honor. The dedication's purpose and the gender of the worshiper are classified as well.

"…This Rhoptron That I'll Never Touch Again," or When Women in Transition Consecrated to the Gods
Eleonora Colangelo, University of Paris Diderot (USPC)

"Forgive me, Dionysus, if I turn away from your choral dances, more attracted by the bacchanals for Aphrodite": by these words the bacchant Eurynome makes explicit in *AP* 6 74 her status of cultual (or rather biological) transition, initialed finally by the consecration of her corybantic tambourine to the ecstatic god. Melo and Satyra, as aged Μουσῶν ἐργάτιδες in *AP* 5 206, dedicate similarly to the Pimpleian goddesses their musical instruments—that is, auloi, a boxwood aulos case, and a wax-joined pipe. These specimens from Agathias' and Leonidas' ἀναθηματικά, echoed by Oporis' cymbals to Artemis Limnatis (Berlin, SM 7458) or Kamo's and Lysilla's ones for Kore and Athena (Athens, NM 7959 and AM 5905), invite us to first assess the role of consecrated musical instruments according to, and by means of, the "gendered agency" category. Therefore, this presentation shows what feminized consecration, whose autonomy is well expressed in *AP* 6 118 with Φίλα ἁ δὲ λυρῳδὸς figure, reveals of some "biotic regulated performances" photograms. Semantic and anthropological aspects of the female agency in consecrating are progressively combined with the social and religious ones in an attempt to answer the following questions: What did Melo and Satyra's αὐγάζειν (*AP* 5 206.8) or Phila's ὀπάζειν (*AP* 6 118.4) add to Alexis' ἀνατιθέναι (*AP* 6 51.4), Eurynome's τιθέναι (*AP* 6 74.7), and Lysilla's ἀπάρχειν (*IG* 1² 425)? Were there particular instruments explicitly reserved for female consecrations (cf. Timareta's erotic consecration of tambourines for Artemis Limnatis in *AP* 6 280)? To what extent were the expectations subtending the consecration of instruments different from those deriving from the devotion of other ritual attributive devices, such as necklaces? Finally, is the semantic range of musical instruments' consecration different—and if yes, for what—from that used for other ἀναθήματα?

Inside and Outside the Tomb: The Isiac Sistrum as Testimony of Worshipers' Beliefs
Arnaud Saura-Ziegelmeyer, University of Toulouse II Jean Jaurès

The first contact between the sistrum and the Greek world occurs by the diffusion of the cult of Isis outside of Egypt during the Hellenistic period. It is used in Isiac processions and can be the attribute of the goddess, of her priests, or of the simple devotee. Most of the objects found in Greece—for which the archaeological context is known—were found inside graves, even in Roman times. A number of headstones also show the deceased holding the instrument. According to several literary testimonies, the musical instrument embodies a specific funerary function, expressing the devotion of the deceased to the Egyptian cult. These representations result in an individualization process, but also mainly because of the question and

the possibility of the afterlife offered by this worship. As an idiophone, it also seems to hold an apotropaic aspect.

The establishment of a typology, the detailed study of the organology, and the ornamentation of the sistrum show that a few objects were used as pure votive deposits and not as musical instruments. Temple accounts mentioning the sistrum or engraved inscriptions on instruments are very rare and only allow us to expect functions other than the musical one. Nevertheless, the bundled study of all ancient evidence linked to the object can clarify its role as a votive offering. In that sense, this paper analyzes the value of the sistrum in the invisible (interior of the tomb) and visible (steles) funerary context.

The Aulos from the Sanctuary of Malophoros at Selinunte and the Sacred Contexts of the So-Called "Early Type" Auloi in the Greek World
Angela Bellia, Chair, AIA Archaeomusicology Interest Group

The aim of this paper is to combine the methods of archaeology for the study of musical instruments by considering their specific findspots and overall contexts. The archaeomusicological approach can place instrumental and choral activities within a well-defined space and relate them to a specific occasion that could shed light on the religious and social meaning of musical performance in antiquity.

This is the research methodology of the TELESTES project that has been funded by the Marie Curie Actions program of the European Commission. The project is dedicated to the musical culture of Selinus, one of the most important of the western Greek cities. My goal is to present a very important part of TELESTES: it is the study of an aulos fragment that was found in the sanctuary of Malophoros at Selinunte. The aulos from Selinunte conforms to an 'Early type' musical instrument: it was a very widely-used spread wind instrument with finger holes and a reed mouthpiece. The 'Early type' musical instrument was the Greek (double) aulos of predominantly the Archaic and Classical periods, which had no mechanism for operating on the tone holes. This discovery is very significant, particularly with regard to the performance of music and ritual dancing associated with the cult activity of Demeter and Core. Terracotta figurines of auloi players, bronze and terracotta bells, and the aulos fragment were found in the sanctuary of Malophoros, testifying to the existence of ritual musical performances around a well in front of the Propylon of the sanctuary that may have been a possible setting for rituals and ceremonies.

These discoveries show the importance of music at Selinus, the city of the poet and musician Telestes, already in the Early Archaic period. As can be seen in other Greek cities, the architecture of the sanctuaries at Selinus could reflect the kind of spatial organization that was necessary for both choral and instrumental practices, as well as for ritual performances.

SESSION 1H
Advances in Aegean Prehistory

CHAIR: To be announced

Iklaina-Traganes is Linear B *a-pu₂* but Not Homeric Aipu, or Is It?
Thomas G. Palaima, University of Texas at Austin

Two longstanding problems are (1) how to identify the Linear B toponym *a-pu₂* with a specific site in Late Bronze Age Messenia, and (2) how to read it in Greek. Prominent Mycenologists (Chadwick, Lejeune, Morpurgo, Palmer, Ruijgh) in the 1950s and 1960s read *a-pu₂* as /Aipu/ = Αἰπύ (Hom., *Il.* 2.592). However, when a hapax woman's name *a₃-pu-ke-ne-ja* was read /Aipugeneia/ = "she who is born at Αἰπύ," the identification of *a-pu₂* with Αἰπύ was rejected.

Opinio communis now rightly identifies *a-pu₂* with the site of Iklaina-Traganes. This identification on archaeological grounds is strong; and Iklaina = *a-pu₂* fits well in the canonical order of Hither Province second-order centers in the Pylos texts.

We argue that (1) *a-pu₂* can be read as non-Indo-European Αἰπύ and (2) the Homeric reference to an Αἰπύ in the kingdom of Nestor is a traditional oral poetic preservation of the Mycenaean site, although its location, like the location of the Mycenaean-Homeric sites Pylos (*Linear B pu-ro*) and Helos (*Linear B e-re-e/-i*), was no longer known in the historical period.

When the Pylos tablets were written, the pronunciation of this place-name retained pre-Greek features. Linear B tablet writers were using a writing system adapted from a script devised for a non-Greek language or languages. We have to factor in how they would have perceived the non-Greek sounds of a toponym spoken by informants.

In Linear B *a₃-pu* and *a-pu₂* can both represent /aiphu-/, suggesting that the non-Greek place-name had a consonantal sound that some tablet writers heard as aspirated. Later historical Greek words derived from this pre-Greek root (αἰπύς, αἶψα, ἐξαίφνης, ἄφνω, and ἄφαρ) fluctuate between aspirated /ph/ and unaspirated /p/. Note also how /ai/ (3x) and /a/ (2x) fluctuate.

We conclude that the data in the Linear B texts support the original "identification" of *a-pu₂* with "Homeric" Αἰπύ ("steep," "defensible," "difficult of hostile approach") as befits the topography and prominence of the archaeological site of Iklaina. The toponym was written *a-pu₂* as it was heard.

Αἰπύ is also described in Homer as εὔκτιτον "well built" or "well settled." This adjective fits the Late Helladic III A and B site excavated at Iklaina. It also likely goes back to the same root as the standard Linear B land-tenure word for a land parcel that has been "settled" or "built upon": *ki-ti-me-na* = *κτιμένᾱ.

Iklaina = Homeric Αἰπύ therefore makes good sense.

The Children's Chamber Tomb: A Case Study of Unusual Juvenile Demography in a Late Bronze Age Cemetery in Central Greece
Kaitlyn Stiles, University of Tennessee

The social significance of juveniles in Late Bronze Age Greece is not well-understood. Although there is some mention of juveniles in the Linear B tablets

from palatial centers, their roles and lived experiences in nonpalatial contexts are unknown. In this paper, I begin the process of assessing the social significance of juveniles through a bioarchaeological study of an unusually high number of juvenile individuals (under 17 years) in Tomb 88 I in the Late Bronze Age rock-cut chamber tomb cemetery of Golemi Ayios Georgios in East Lokris, central Greece.

The minimum number of individuals estimated for the Golemi cemetery is 250.2. Of these, 50 are juveniles, of which 13 (ca. one-fourth) were interred in Tomb 88 I. Tomb 88 I is one of the most populous tombs in the cemetery with at least 27 individuals represented, the remaining 14 being adults. In typical mortuary populations, the most represented age groups are the young and the old because of their relative vulnerability to disease and accidents. As an individual ages, his or her risk of death decreases exponentially from birth to early adolescence (ca. 5-10) before it begins to incrementally increase. Thus, it is unusual that of the 13 juveniles in Tomb 88 I, eight are estimated to be between 7 and 16 years old.

In this presentation, I explore three potential, not mutually exclusive, explanations for this demographic oddity: (1) The tomb comprises a single familial lineage that produced several children who died from disease or other causes. (2) The juveniles buried in this tomb were not necessarily related, but they (and possibly the 14 adults) died around the same time and required simultaneous burial. (3) This tomb was used over a period of time for individuals, including juveniles, who may not have belonged to a distinct social group, such as a family, with a designated chamber tomb.

Paleopathological and demographic analyses reveal a notable paucity of non-specific indicators of disease and no traumatic injuries among the juveniles, which suggests a fast-acting disease may have been responsible for their deaths. While this finding supports the second explanation, it does not necessarily reject the other two. However, the stark difference between numbers of juveniles in other Golemi tombs and in Tomb 88 I makes the first explanation less likely. Ultimately, the unusually large concentration of older juveniles in one tomb indicates that there is much more to be known about juveniles in the Late Bronze Age.

A Paleodemographic Approach to Burial Exclusion in Mycenaean Achaia

Olivia A. Jones, University of Groningen

Mycenaean burial practices are characterized by their variation; burials in different forms (primary, nonprimary, and secondary) occurred in chamber and tholos tombs, changing through time and with variations between regions. Despite growing interest in Mycenaean mortuary practices, this variation in mortuary treatment leaves many unanswered questions. What are the reasons for this variation in mortuary practice? Were certain burial practices prescribed for certain groups within society? In particular, the distribution of individuals between sites, tomb types, and burial forms is rarely discussed in relation to relevant bioarchaeological data. Cultural factors, such as social status or manner of death, as well as biological criteria, such as age at death or sex, could have restricted individuals to interment in specific burial forms. In order to come closer to understanding this burial variation, I reconstruct the selection criteria with bioarchaeological data using a sample from Achaia.

In this presentation, I reconstruct the demographic structure for two main reasons. First, I use the data to evaluate whether inclusion or exclusion into formal burial was influenced by sex or age at death of individuals. This is outlined at different levels of analysis including the burial form, the tomb type, and the time period. In addition, this analysis serves as a precursor to Mycenaean paleodemographic studies by first assessing the composition of a regional burial sample. Although bioarchaeological study is becoming more common, data are primarily studied at the site level. This analysis is the first regionally focused synthesis of Mycenaean bioarchaeological data.

The results demonstrate an equal number of males and females interred within formal cemeteries, specifically in tholos and chamber tombs in Mycenaean Achaia. This suggests that both males and females were equally eligible for formal burial. In sharp contrast to the sex data, infants and young children are underrepresented in the cemetery sample. Therefore, I argue that the burial sample of Mycenaean Achaia is not a true reflection of the living population. Rather, the mortuary record shows that Mycenaeans consistently omitted infants and young children from formal burial, demonstrating burial exclusion on the basis of age at death.

The Daniel Kober Correspondence and New (Again) Approaches to Cypro-Minoan
Cassandra Donnelly, University of Texas at Austin

This paper looks at the previously unnoticed World War II portion of the nearly decade-long correspondence between Alice E. Kober, the greatest pre-decipherment scholar of Linear B, and John Franklin Daniel, archaeologist and editor of the *American Journal of Archaeology*, to address vexing questions concerning the Cypro-Minoan script. On 15 November 1941, Kober wrote Daniel a 10-page, almost point-by-point critique of his seminal article, "Prolegomena to the Cypro-Minoan Script," a critique she undertook because she found Daniel's article "so excellent." In her critique, she attends almost exclusively to Daniel's sign equivalency charts that proposed tentative equivalencies between Cypro-Minoan signs and those of Cretan Hieroglyphic, Linear A, the Linear B and "Helladic" and Cypro-Syllabic scripts. Three days later, Daniel responded to Kober with his own point-by-point engagement with her critique.

Kober and Daniel's discussion of sign equivalencies illuminates problems still relevant to the study of Cypro-Minoan. Their methods for identifying signs deserve attention not only because of the brilliance of each scholar but also because they approached the script prior to the decipherment of Linear B and so relied almost exclusively on visual, not phonological, clues. Despite the renewed attention the Cypro-Minoan script is receiving after the publication of new corpora in 2007 and in 2013, scholars still do not agree on the number of signs in the Cypro-Minoan script, whether they represent one script or several, and the relationship between the script(s) to Linear A and B.

Of central concern to the paper is Kober's recognition that, of the Cypro-Minoan signs with clear antecedents in Linear A and B, the B antecedents for Cypro-Minoan signs have both syllabic and "logographic" (usually commodity) values. The subsequent discovery of additional Cypro-Minoan texts and the recognition that some Cypro-Minoan signs function logographically support Kober's intuition, to

a limited extent, but since she never pursued the observation in publication, her idea has never received attention. Pursuing Kober's idea, the paper identifies a handful of signs that have "logographic" precedents in the linear systems, such as the sign for wheat and for certain textiles, and discusses the implication of these sign identifications both in terms of the archaeological contexts of Cypro-Minoan inscribed objects and the process of script borrowing and adaptation evident in the Cypro-Minoan script.

The Gods of Kommos: Reconsidering the Deities of the Tripillar Shrine and Their Cross-Cultural Meanings in the Iron Age

Megan Johanna Daniels, University at Buffalo, SUNY

The sanctuary at Kommos and its associated Tripillar Shrine, published in Joseph and Maria Shaw's fourth volume on the excavations, constitutes one of the most important religious sites on Iron Age Crete. The shrine, installed during the second phase of Temple A (10th century B.C.E.), flourished during the period of Temple B (ca. 800–600 B.C.E.) and forms one of the major indicators of Phoenician activity at Kommos, along with transport jars. Moreover, wedged in between the pillars were faience figurines of the Egyptian goddess Sekhmet atop a bronze horse and the god Nefertum, deities who, along with Ptah, make up the Memphis triad. This triad was familiar to the Phoenicians (Hdt. 2.112) and also to the Greeks, given the various locales—namely, graves and sanctuaries to Hera, Athena, and Artemis—that feature amulets and figurines of Sekhmet.

In a 1989 article, Joseph Shaw compared the shrine to Phoenician and Punic examples around the Mediterranean and suggested that it may have referenced Phoenician triads such as Baal, Astarte, and Asherah. Furthermore, he hinted at a local Cretan interpretation of this triad as Apollo, Artemis, and Leto. More recent work on the identities of these deities has suggested the major Punic gods, Tanit and Baal-Hammon.

Drawing on religious evidence from the Egyptian, Greek, and Phoenician worlds along with evidence for trading patterns of the Phoenician cities Tyre and Sidon, I argue that the original identification of these figurines must have been Astarte and Eshmun, the tutelary gods of Sidon. While Astarte has been associated with Sekhmet in previous scholarship, the full significance of her iconography and socioreligious meanings within the context of Iron Age Kommos has not been adequately explored. I thus examine two major classes of objects associated with Temple B—namely, perfume jars and votive weapons—and relate these objects to the personas of these deities and their worshipers: for Astarte, her role as mounted warrior associated with kingship, known from Late Bronze Age Egyptian and Levantine evidence, associates her with the warrior aristocracy active at Kommos. Likewise, Eshmun's association with oils and healing pairs well with the growing number of traded perfume jars during Temple B's life cycle, while translating into Nefertum's spheres of influence. Finally, by considering broader Greek contexts for the incorporation of Near Eastern gods into local pantheons, I position religion as a major arena of cross-cultural interaction, driven by two emergent Iron Age social groups, elites and merchants.

Mochlos at the End of the Seventh Century B.C.E.: Results from Recent Excavations
Natalia Vogeikoff-Brogan, American School of Classical Studies at Athens

Located in east Crete, the island of Mochlos is primarily known for its extensive Minoan remains and Late Hellenistic habitation, both of which occupy the southern slope of the island (described here as Lower Mochlos). Recent excavation on the summit of the island (now identified as Upper Mochlos) has recovered evidence for two previously unknown periods of occupation in the Late Orientalizing and the Late Classical periods. Neither phase is represented in Lower Mochlos, and much to our surprise no Bronze Age or Hellenistic remains were recovered on the summit.

This paper presents the remains and discusses the significance of the seventh-century B.C.E. occupation. The excavation unearthed a small number of structures, one of which contained a low, stone-built hearth in the middle of the room. What is particularly striking about the modest occupation is the quality of the pottery, including a rare example of a Transitional Corinthian oinochoe (625–610 B.C.E.), several hydrias, a collection of fine drinking cups, and fragments of transport amphoras, most imported from east Greece. The Corinthian oinochoe, which on stylistic grounds can be attributed to the wider circle of the Polyteleia Painter, constitutes the peg on which the chronology of Mochlos' abandonment in the late seventh century hangs.

The presence of high-quality Corinthian pottery and the stone-built hearth also distinguish the establishment on Upper Mochlos. The first suggests that its occupants belonged to an elite circle with access to fine material culture; the second suggests a nondomestic function for the structures on Upper Mochlos. Hearths in Early Iron Age Crete are usually associated with ritual drinking and feasting.

The settlement on Upper Mochlos was short-lived. The site was abandoned at the end of the seventh century B.C.E. The preservation of whole pots in several parts of the site also indicates that its abandonment was not planned. The excavations at nearby Azorias have shown that after 600 B.C.E. east Crete entered a very different and dynamic period of territorial reorganization, urbanization, and institutionalization. Mochlos was most likely abandoned because it was part of an older sociopolitical configuration that was lineage-based and thrived on diacritical behavior. By the end of the seventh century B.C.E. the group or clan that had congregated on Upper Mochlos was probably forced to integrate itself within the tribes (φυλές) of a new urban center at distant Praisos or another city somewhere in the West Siteia Mountains.

SESSION 1I
News from the Western Provinces

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

Partying in the Provinces: Tracking Roman Social Networks via Domestic Spaces
Alec Brown, University at Buffalo)

The penchant for partying among the urban elite of Rome is well documented, and the urban domus and suburban villas at the very center of the empire were accommodating physical settings for social interactions. Were the homes of Rome's more marginal populations built to cater to similar appetites? Here the author focuses on the rural villas of the most marginal area of the Roman empire, the Dacian provinces, the only Roman territory ever established beyond the Danubian *limes*. This project aims to discover whether the built environment of rural Roman Dacia was at all designed to support the same social mechanisms that were enabled by private homes of the core provinces.

The author theorized initially that rural villa residences in the areas between major urban centers would show an extension of the urban social network, especially along the major river and road routes, as opposed to the rural villas of the peripheral military provinces along the *limes*. This would be indicated by the inclusion of reception and entertainment spaces within their residences. A method for the identification of entertainment spaces was implemented for all rural villas throughout Dacia with extant floor plans. This method employed a network analysis on the layout of the residences, primarily focused on the relative integration of rooms with hypocaust heating systems. It was actually determined that rural villa owners within the economic, political, and social core of Roman Dacia had little stake in entertaining guests at any scale. In contrast, the rural villa owners of the northern military province invested considerably in entertainment areas. The author concludes that rural populations in the social core of Roman Dacia were not integrated into the urban social networks, while the rural residences in militarized areas were the backbone of their local networks. This has not only has implication for the social practices of the Dacian populations but also speaks to the demographics and geographics of sociopolitical influence and vocality in Roman Dacia.

War, Ritual, and Symbolism: The Gallic Carnyx
Marsha McCoy, Southern Methodist University

The Gallic or Celtic carnyx is a type of trumpet held and played vertically with the bell curved to horizontal position and shaped in the form of a boar's head or other animal head. It was played in war to unite the Gallic troops, to intimidate the enemy with its loud, blaring sound, which was quite piercing beacuse of its height, and to frighten opponents with its large boar- or serpent-head visage. Use of the carnyx is reported in the Gallic attack on Delphi in 279 B.C.E., Caesar's campaigns in Gaul in the 50s B.C.E., and Claudius' invasion of Britain in 43 C.E. Diodorus in the *Histories* (5.30) says, "Their trumpets again are of a peculiar barbarian kind; they blow into them and produce a harsh sound which suits the tumult of war." The carnyx is one of the most distinctive identifying elements of the Gallic warrior,

and is almost always depicted on Roman coins showing Gallic defeats (Crawford, *RRC* 282/1–5; 448/2a–3). It also appears on reliefs on Trajan's Column and on the silver Gundestrup cauldron found in northern Denmark (probably of Celtic-Thracian origin) and dating to 150 B.C.E.–50 C.E. While fragments of carnyces have been excavated in Scotland, France, Germany, Romania, and Switzerland, in 2004 seven carnyces, one almost complete, were excavated in a Gallic military and religious deposit dating to the time of Caesar's conquest in Tintignac, France, near Limoges. Evidence from the excavations suggests that the carnyces served a ritual as well as a military function. This paper analyzes the extraordinarily prominent place given to the carnyx in representations of Gauls by the Romans and in Gallic art and burial deposits. Using the theories of cultural anthropologist Dan Sperber in his seminal work, *Rethinking Symbolism* (Cambridge 1975), it suggests that the carnyx functioned as a cultural symbol for the Gauls, containing a variety of meanings, in this case destructive as well as apotropaic and protective, meanings contradictory and, consequently, inherently ambiguous, as many symbols are.

The Cheeky Gaul: The *Signis Receptis* Type of L. Caninius Gallus (*RIC* 1 Augustus 416)
Rebecca Katz, University of Miami

In 12 B.C. the *triumuir monetalis* L. Caninius Gallus restored the *signis receptis* reverse type of a kneeling barbarian surrendering a Roman vexillum, which had originally appeared on the coinage of all three mint magistrates in 19 B.C.E. to commemorate the return of the standards from Parthia. The type had not been seen since and would not be seen again, raising the question of why this one moneyer would restore it. The answer can be found in the one key iconographic difference: on the earlier issues, the kneeling barbarian is a Parthian; Gallus' barbarian, on the other hand, is naked save for a long cloak, and his long hair sticks out straight behind his head. This iconography belongs not to an Easterner but rather to a Gaul.

At first this Gaul seems distinctly out of place, as the Gauls are not known to have played any part in the return of the standards from Parthia. I argue that the Gaul was chosen by Gallus to replace the Parthian primarily as a visual pun on his cognomen. There was a long tradition in Roman republican coinage of such puns: even on the earliest issues of Roman coinage we find potential allusions to cognomina, including a *dolabella*, a *scipio*, a *torque*, and a *catulus*. Later indisputable "canting" types include the Philips of the Marcii Philippi, the Silenus of the Junii Silani, and the Pan of the Vibii Pansae. It would be easy to assume that these puns died out in 19 B.C.E., whose college of mint magistrates produced the last known personal types on Roman coinage. All the types struck thereafter relate exclusively to the imperial family, a marked change from the private imagery that had dominated republican coinage for well over a century. (The end of such private coin types coincides exactly with the last triumph celebrated by a private individual, that of L. Cornelius Balbus, also in 19.)

Gallus' choice of type deserves further attention as the last of this long and plentiful tradition of onomastic allusions to moneyers' names in Roman coinage, one that stands testament to the creativity and persistence of Roman aristocrats as they continued to strive to assert their own private identities even as their former avenues to glory were growing increasingly monopolized under the principate.

In Provinces Far, Far Away: The Pairs of Amphitheaters at Carnuntum and Aquincum

Marlee Miller, Institute of Fine Arts, New York University

The phenomenon of two amphitheaters in one location has been addressed only in the 1979 (*Archeologia* [30]) article of Polish historian and archaeologist Jerzy Kolendo. Its central question about the curious placement of two amphitheaters in one city focuses on the empire's northern *limes* Pannonian settlements of Aquincum, at modern-day Budapest and Carnuntum, east of modern-day Vienna. Faced against modern scholarship and recent discoveries in the studies of military settlements, spectacle architecture, and frontier habitation, Kolendo's proposals have become unsatisfactory. This paper investigates this question through the application of current methods of analysis, such as the sociospatial investigations between the military and civilian areas of a legionary fortress, and archaeological evidence, such as the so-called *ludus* found through the use of the latest non-invasive technology at Carnuntum in 2007, detected and to be published by Ludwig Boltzmann, Institute for Archaeological Prospection and Virtual Archaeology. It is clear that Carnuntum and Aquincum stand out as distinct, separate urban layouts, all the more anomalous because of the close chronology of the amphitheaters' constructions, which deserve more comprehensive consideration. My additional intention is to introduce this fascinating and culturally significant occurrence to English-speaking scholarship. Much of the excavations and publications have been carried out in German or Hungarian, further breaking the study of the Roman empire into parts rather than an international academic conversation. I aim to encourage more engagement with this topic among fellow academics.

A New Statue of Attis from the Roman Military Camp in Mainz

Peter Satterthwaite, Washington University in St. Louis

An excavation of barracks in the Roman military camp at Mogontiacum (Mainz, Germany) in 2015, at which the author was present, recovered a peculiar limestone statue depicting Attis, the young consort of Mater Magna. Both the iconography and location of this find raise important questions. Whereas typical images of Attis in mourning (*Attis tristis*) show the young shepherd supporting his downcast face with one hand, the new statue from Mainz has Attis raising an index finger to his lips. This gesture, though it does appear in other ancient art, has never been associated with Attis before now. The provenance of this statue also distinguishes it from other images of the Phrygian youth: whereas most depictions of Attis in mourning come from grave stelae or larger funerary monuments, this stone image was recovered from the living quarters of Roman soldiers.

This paper first presents in detail the unusual iconography and archaeological context of the statue; it then compares the find with other Attis images as well as with epigraphic and archaeological evidence for involvement of Roman soldiers in the cult of Mater Magna. The final portion of the paper explores the significance of this novel discovery for several areas of study, including the worship of Attis and Mater Magna in the Roman provinces and the practice of private religion in the Roman castrum.

The Past in Romano-British Landscapes
Lacey Wallace, University of Lincoln

The aim of this paper is to explore how studies of Roman landscapes can be enriched through interpretation of how people in the past reacted to and used features from earlier periods. While most Roman archaeologists would acknowledge the significance of memory and "the past in the past" to imperial propaganda, religious syncretism, and funerary monuments, these themes are largely absent in Roman landscape archaeology. Beyond simply identifying continuity in, reuse of, and proximity to pre-Roman features, this paper seeks to ask, how was the past actively woven into Roman-period constructions and experiences of landscape?

The landscape survey (The Canterbury Hinterland Project) from which the evidence for this paper derives has produced an almost overwhelming amount of data. Methods such as geophysics and aerial photographic study require us to collect data from all time periods, but much analysis is period-specific. In drawing comparisons to other areas, it is clear that pre-Roman-period evidence is often excluded for analysis and interpretation. In east Kent, however, the high density of Bronze Age barrows, rapid late pre-Roman Iron Age cultural changes, and evidence for continuity of significance into the Roman period require that we consider how the structures, monuments, and memories of the past were understood and used. There are, therefore, two foci for this paper: assessing the value of multiperiod analysis and questioning the construction of the past into experiences of Roman landscapes.

Two landscapes of power, belief, and memory—composed of complex, multiperiod "places" and their multiple and mutable meanings—have been discovered in areas of large-scale survey (at Bourne Park, Bishopsbourne and Ickham/Wingham, Kent). Clear structural and symbolic associations between pre-Roman and Roman-period features indicate that people were manipulating temporality to construct group identities, to create the illusion of continuity, and to negotiate the connection between people and place. Intersections of boundaries and pathways, intervisibility of Bronze Age and Romano-British funerary monuments, relationships to natural springs and streams, and other complex interconnections can be interpreted to understand how different groups of people created, understood, exploited, and experienced memory in multiperiod social landscapes.

Literary to Visual Form in Romano-British Architecture: Reading the Low Ham Mosaic
Serena N. Crosson, Brophy College Preparatory

This paper proposes that the Low Ham mosaic (ca. 340–50 C.E.) from Somerset, England, reimagines books 1–4 of Vergil's epic, the *Aeneid*, as an elegiac narrative, and that this shift was motivated by the architectural location of the mosaic: the frigidarium of a private bathhouse. Past critical receptions of the mosaic have chiefly focused on whether it serves as evidence of a classical education among the wealthy elite in Britannia. However, conclusions have diverged on whether the mosaic actually conveys that the owner read the epic poem, as it is not a true representation of books 1–4. I argue that the mosaic is more than a demonstration

of works read; it is an engagement with the bathhouse that betrays a consciousness of poetic genres within the visual traditions of Roman architecture.

Essentially, the Low Ham villa owner has recast the Vergilian episode from epic to elegy to define the space of the frigidarium as a place of pleasure. Roman baths, private and public, were viewed as spaces of bodily pleasure, often in a sexual way that was self-consciously displayed on bathhouse walls and floors via erotic and exhibitive decor. The owner, knowledgeable of the decorative norms of the baths, omitted the overtly epic aspects of the *Aeneid*—that is, those pertaining to physical displeasure (the events from books 2 and 3, wherein Aeneas recounts his flight from Troy, and Dido's suicide)—in favor of images common to Roman elegy to conjure scenes suggestive of the physical pleasures of the baths: the panels primarily showcase the courtship and romance of Dido and Aeneas and culminate with Erotes holding torches around Venus, the "Muse" of elegy, as she disrobes in the central panel.

Additional mosaics from the province (particularly those from the Lullingstone and Frampton villas) lead me to conclude that Roman Britons not only read classical literature but created inventive visual reinterpretations as informed by the spaces in which they were displayed. In other words, they used architectural space to harness the interpretive power of visual mediums for the display of classical literature that has so far gone unrecognized.

SESSION 1J: Colloquium
New Approaches to the Catacombs of Rome

ORGANIZERS: *Sarah Madole*, City University of New York–Borough of Manhattan Community College

Colloquium Overview Statement

The study of Rome's catacombs has long resided under the aegis of pontifical archaeologists and the discipline of "Christian archaeology," with few North American scholars actively pursuing this field. Over the past two decades the situation has changed, and a new wave of pioneering voices challenge traditional interpretations of these subterranean networks by foregrounding archaeological, epigraphic, and other material evidence. This session casts new light on these burial sites, once considered exclusive religious entities operating under church management. We now know the catacombs were populated by mixed burials, a reflection of "family choice" or social club membership, as scholars such as Eric Rebillard and Barbara Borg have convincingly argued. Yet despite such recent—occasionally astonishing—interpretations of their rich, multivalent evidence, the catacombs remain deeply misunderstood and frequently overlooked. This panel forges a new path. Its scholars reflect the interdisciplinary nature of catacomb studies and represent the fields of archaeology, art history, religion, and classics. The hermeneutical analyses challenge traditional assumptions and track the course of catacomb studies in Rome itself and even here at the annual meeting of the AIA.

The first two papers present data collected from case studies. "Site-Specific Styles in Roman Catacomb Epigraphy" examines social interactions between

patrons and workers through a statistical analysis of epigraphic data. The second paper, "Roman Sarcophagi with Catacomb Contexts: A Case Study," brings much-needed attention to third-century sarcophagi from catacomb settings. The third paper, "Offerings Agricultural and Financial," though traditional in theme, uses unexplored catacomb evidence for the continued practice of material offerings despite church interdiction and provides insight into the power dynamics of the fourth- and fifth-century church. The final two papers turn to the reception of the catacombs: "Christian Invention and Imagination at the Crypt of the Popes in the Catacombs of Callixtus, Rome" argues that a hallowed site of authenticity for the church is, in fact, an early modern invention, a constructed site of memory linked to reception history rather than ancient commemorative practices. Finally, "Exploring Estelle: AIA Advocate, Jewish Site Preservation Pioneer" considers a visionary advocate for catacomb studies in North America, Estelle Shohet Brettman, whose legacy continues. The respondent, a member of the vanguard, discusses the broader implications of the session.

DISCUSSANT: *John Bodel*, Brown University

Site-Specific Styles in Roman Catacomb Epigraphy
Jenny Kreiger, Getty Foundation

Epigraphy from catacombs offers an extraordinary database for the study of labor and society in Late Antique Rome. On the one hand, individual funerary inscriptions attest a wide range of occupations held by the dead while living: catacombs house the remains of painters, butchers, hairdressers, cooks, vegetable sellers, singers, and many others. On the other hand, catacomb inscriptions also have the potential to illuminate the working practices and organization of the engravers and patrons who made them. Using quantitative methods based on those used in demographic studies of epigraphy, this paper approaches these often-overlooked workers through their products. I present concrete evidence for site-specific epigraphic styles, linking social interactions between workers and patrons to the archaeological and architectural contexts of catacombs.

This project starts from the premise that catacombs can be viewed as architectural spaces that facilitated interaction among patrons, workers, and a constantly growing corpus of epigraphy. Over the period in which catacombs were used primarily for burial (at most Roman sites, from the early third to the mid fourth century C.E.), repeated contact among these people and texts at a given catacomb site could cause the development of a site-specific style reflecting the patrons' and workers' habits, preferences, and priorities. The existence of site-specific styles has been suggested based on small corpora with clear visual similarities (e.g., the "Ostrian"-style inscriptions at the catacomb of Sant'Agnese), but quantitative analysis has the potential to reveal styles in large corpora with diverse visual qualities. Taking samples from the epigraphic corpora of three large Roman catacombs—Domitilla, S. Callixtus, and the Coemeterium Maius—I compare patterns in their uses of words and images to reveal each site's particular epigraphic style. I then contextualize the epigraphy of these sites by considering the architectural and social phenomena to which they might relate.

This analysis reveals distinctive patterns in the use of words and images in the epigraphy of each site. This diversity reflects demographic differences among the communities associated with the sites (e.g., S. Callixtus contained many more children than the other sites), as well as responses to architectural and social features of the sites (e.g., most of the Chi-Rho motifs in Domitilla occur near the tombs of martyrs). I argue that these patterns resulted from complex social interactions among workers and patrons and their ongoing contact with epigraphy in catacombs.

Roman Sarcophagi with Catacomb Contexts: A Case Study

Sarah Madole, City University of New York–Borough of Manhattan Community College

This paper presents the results of a study documenting Roman sarcophagi found at three major catacomb sites, commonly united by similar origins and the notable presence of sarcophagi: Domitilla, Praetextatus, and Priscilla. At all three sites the underground extensions augmented aboveground necropoleis, and both the supra- and subterranean loci contained a considerable number of sarcophagus depositions dating to the third and mid fourth centuries. Despite the chronological setting of these sarcophagi and their lack of overtly religious imagery, the catacomb context itself has resulted in a de facto "Christian" interpretation of all excavated materials. The obvious incongruity continues in current scholarship, primarily because the catacombs—and any topographically proximate material remains—fall under the pontifical purview, which maintains a Christian interpretation, an obvious challenge to Roman art historians interested in non-Christian-looking material.

This paper leaves aside questions of religious identity, focusing instead on the material of the pre-Constantinian period, a chronological parameter that precludes a discussion of Christian imagery on sarcophagi. My aim is twofold: first, to clarify the topography of the aboveground necropoleis, which included independent tomb precincts, mausolea contained within larger arenaria, columbaria, and other burial types, all now destroyed. The sarcophagi installed in the dedicated sarcophagus museums at all three sites primarily derive from these lost contexts, although their catacomb connection thus far eludes scholarly analysis outside of the discipline of Christian archaeology, with few exceptions. Second, while most sarcophagi were installed above ground, there is secure evidence for sarcophagus depositions in the catacombs. Inquiry into aspects of social history, patronage, and personal choice would amplify our understanding of the presence of subterranean sarcophagi; nevertheless, the scope of this paper is data-based rather than interpretive. The major contribution is clarification, an offering to the long-divided yet deeply overlapping disciplines of Roman art history and Christian archaeology. The lost aboveground contexts of all three catacombs, although poorly preserved because of earthquakes and later rebuilding, nevertheless reveal a diverse clientele and burial economy, and in the initial phases of subterranean extension the mixed burials continue along similar lines. Such evidence is often overlooked as a result of the disciplinary divide. This paper, the preliminary results of one study, offers a model for further research.

Offerings Agricultural and Financial
Daniel Ullucci, Rhodes College

This paper is part of a larger project that redescribes Early Christian offering practices. By the second century C.E., many elite Christian writers had developed a strong and ideologically complex rejection of animal sacrifice. This further developed into a rejection of all physical offerings, a discourse that claimed that real Christians made "spiritual," not physical, offerings. At the same time, however, there is ample evidence, both archaeological and textual, that many Christians continued to make offerings of grains, wine, oil, and animals well into the fifth century and beyond. These offering practices were often centered around saints' shrines and other funerary locations. This evidence has only recently begun to receive due attention from scholars. This paper adds a third underanalyzed element—financial offerings. The fourth- and fifth-century evidence shows a massive diverting of financial capital into Christian hands. While this capital was realized in elaborate churches and a growing class of financed professional clergy, a discourse of "spiritual offerings" and "spiritual sacrifice" was developed that recast financial offerings as gifts to the church, the poor, and ultimately to God. Christian rhetoric thus masks a paradox: ecclesiastical authorities condemn agricultural offerings while their own churches and professional positions are dependent on financial offerings. In the texts of men like Ambrose, Augustine, and John Chrysostom, a few drops of wine poured out at a saint's shrine were reviled as "physical," whereas hundreds of pounds of gold and silver were ideologically laundered into "spiritual" offerings.

This paper argues that the competitive interactions between agricultural offerings and financial offerings, between lay donors and clergy, played a fundamental role in the shaping of Christianity in late antiquity and beyond. This paper focuses on the unique evidence from the Roman catacombs to illustrate the proposed model. The catacomb evidence combines several key aspects of the competitive dynamics at play: (1) the continuation of physical offerings in the face of ecclesiastical censure, and (2) the increasing ability of church officials, via financial resources, to control places of agricultural offerings. The catacombs provide an opportunity for us as scholars to follow the money. The dramatic rise of the ecclesiastical elite was made possible by the ideological and financial investments of a broad class of Romans interested in what these clergy had to offer them. The catacombs provide important evidence for how this competition over proper offerings played out.

Christian Invention and Imagination at the Crypt of the Popes in the Catacombs of Callixtus, Rome
Nicola Denzey Lewis, Claremont Graduate University

The vast complex of the Catacombs of Callixtus at Rome is, according to Catholic proponents of "sacred archaeology," the first "official" Christian burial site in the city, established in the third century by Pope Zephyrinus. According to Hippolytus' *Refutatio*, Zephyrinus appointed his deacon Callixtus as overseer of this site. At the catacomb's heart—in one of its oldest sections—lies a double barrel-vaulted chamber known as the Crypt of the Popes, purported to be the first

example of an ecclesiastical burial chamber. This crypt preserves the tombs of nine third-century popes. In this paper, I argue that this crypt is not what it seems: it is an early modern invention of sacred space by the famed Catholic archaeologist Giovanni Battista De Rossi (1822–1894), largely directed to his sponsor, Pope Pius IX (1792–1878). Thus this paper uses the Crypt of the Popes as a case study for what was at stake for the Catholic Church in the invention, curation, and presentation of the Christian catacomb as mnemotopia.

Exploring Estelle: AIA Advocate, Jewish Site Preservation Pioneer
Jessica dello Russo, Pontificio Istituto di Archeologia Cristiana

The AIA's centennial meeting of 1979, held in Boston, offered attendees an exceptional opportunity to learn about new research on ancient Jews in the Roman Diaspora at both on- and off-site venues. A particular focus considered Jewish tombs in the underground cemeteries, or "catacombs," of Rome. With the financial backing of Estelle Shohet Brettman, AIA member and deputy coordinator, a panel of experts in the field convened to share their work on the archaeological evidence of Jewish communities within the larger context of Graeco-Roman civilization. By special invitation, artist Letizia Pitigliani displayed recent pictures and photographs of the Jewish catacombs, and Colafemmina embarked on a mini lecture tour to discuss the reaffirmation of a Jewish presence in Italy's southern regions. He and Eric Meyers were to collaborate on an excavation of a region of the Venosa Jewish catacomb the next year.

The meeting of like minds at the AIA in 1979 was timely, and not just for the AIA's big anniversary. While none of the panelists spoke primarily about Rome's Jewish catacombs, these were probably the archaeological remains most in the public eye at the time, as Italy and the Vatican moved forward to ratify a new treaty that would remove these ancient burial grounds from direct Vatican control, a deal finally reached in 1984. Talking about Jews in modern Rome was the same as talking about the tombs of the Jews in ancient Rome, since virtually all evidence for the former was derived from the latter. It was too big an elephant in the room to be ignored. And it wasn't.

The other major event that coincided with the AIA panel, Pitigliani's presentation, and Colafemmina's lectures, was an exhibition of photographs of the Jewish and Christian catacombs of Rome, mainly taken by Brettman, the AIA session organizer. The show, however, was not limited to scholarly audiences in a meeting hall; it was exhibited in the grand foyer of the Boston Public Library, visible to thousands of Bostonians and visitors alike, of countless backgrounds and stations. A few months later, always in Boston, the International Catacomb Society was born, an organization that continues to promote awareness of the catacombs. This paper contextualizes the importance of such a "genesis" for the early work of the Catacomb Society and outlines the rich legacy for scholars that Brettman left behind at her death in 1991.

SESSION 2A: Joint AIA/SCS Workshop
The Classics Tuning Project: Competency and Visibility in the Classics at Small Liberal Arts Schools

MODERATOR: *Angela Ziskowski*, Coe College

Workshop Overview Statement

The humanities in general face a raft of challenges from students and their parents, who feel pressured to see the value of an undergraduate major purely in terms of its "return on investment." The Classics Tuning Project is a collaborative venture organized by faculty members from the Associated Colleges of the Midwest (ACM). In this workshop, we will present the preliminary results of a grant-funded project designed to develop a common language around the competencies and skills learned through the study of classics.

Our project is creating several bodies of data to further our goals. First, through the collation of data across numerous small departments, and a two-day workshop, we intend to articulate the learning outcomes or competencies associated with an undergraduate degree in classics and craft compelling arguments for their value outside the academy. Second, we will create and administer a survey of classics alumni showing what paths they have taken and how their classics education, and the learning outcomes associated with it, applies to their current lives. After the workshop, and with the aid of survey data, participating ACM faculty will generate resources to make these learning outcomes and their value more explicit to students and the wider community. We intend to deposit all materials in an online repository available to the ACM and to use this workshop to develop and share them.

The purpose of this project is to enable faculty to promote the visibility and popularity of the field more broadly, and to help students articulate the value of their skills. Such "tuning," as this process has been labeled, is not only critical to the field of classics, but to the promotion of the humanities and liberal arts, which have recently struggled to "sell" their value in national dialogue about education.

A group of professors from the ACM are developing a common repository of resources—from general promotional materials, individual course assignments, and survey data on what Classics students do after graduating—aimed at helping students articulate the value of the competencies they are achieving through their study of the ancient world. These materials will also prove valuable for facilitating program-level assessment of individual colleges' classics learning outcomes.

PANELISTS: *Clara Shaw Hardy*, Carleton College, *Angela Ziskowski*, Coe College, *Sanjaya Thakur*, Colorado College, and *Lisl Walsh*, Beloit College

SESSION 2B
Architecture and Construction in Late Antiquity

CHAIR: *Joanne M. Spurza*, Hunter College of the City University of New York

The Marzamemi "Church Wreck" in the Sixth-Century Mediterranean
Andrew Donnelly, Loyola University Chicago, and *Justin Leidwanger*, Stanford University

The Marzamemi II shipwreck, better known as the "Church Wreck," is famous for its impressive sixth-century cargo of more than 100 tons of prefabricated architectural material, including religious furnishings intended to decorate the interior of a Christian basilica. Since the vessel's initial discovery and early fieldwork campaigns of Gerhard Kapitän in the 1960s, this site off southeast Sicily has been connected to the emperor Justinian, with the elite nature of the cargo suggesting a strong hand of the imperial center in facilitating this movement of goods for the greater glory of his empire. Over five annual fieldwork campaigns since 2013, recent investigations of the site have uncovered not only these architectural remains, but a diversity of additional material that offers new insights into the ship, cargo, and wider Mediterranean world.

The breadth of these finds adds new dimensions to the understanding of the Church Wreck: amphoras from across the entire eastern Mediterranean, North African coarse and finewares, a variety of other smaller decorative materials (glass, pigment, possible stone "samples"), and remains of the ship itself. Such new discoveries suggest a more nuanced model of maritime exchange that needs to be examined as a whole alongside the larger and more celebrated cargo that is too often viewed in isolation. A diverse secondary cargo, combined with the construction of the vessel itself, argues against any specialized or purpose-built craft for this particular marble shipment, offering a window into the general logistics and mechanisms of stone transport that were crucial to the maintenance of large-scale building programs.

This paper situates the Marzamemi II shipwreck in the social and economic setting of its time, examining a broad range of these new finds in light of contemporary textual sources (e.g. law codes, saints' lives) as well as the local building traditions and patronage that emerged in several Late Antique cities. At the same time, this historical framing of the mundane world of seafaring merchants offers a counterpoint to the art historical lens through which such architectural programs are generally viewed. A contextual analysis of the cargo, vessel, and crew offers not only a new historical setting for this one site, but a greater understanding of the role of the everyday maritime economy in the cultural connectivity of the early sixth century C.E. Mediterranean world.

Contractors and Corporati: An Epigraphic Study of the Organization of Building in Fourth Century C.E. Rome

John Fabiano, University of Toronto

In a letter written to his father before 377, Symmachus reports on construction done to one of his family's many urban domus. The contents of the letter inform us that the work was let out through a traditional locatio-conductio contract. This particular contractual arrangement was long practiced at Rome. In private and public contexts both ex novo construction and repair work were let out to specialized contractors known as redemptores. These entrepreneurs' presence in the epigraphic record through to the high empire allows some conclusions to be drawn about their status and organization. Yet no single redemptor is attested in the extant record after the third century. As a result, little has been said of their organization and position in the Late Antique Urbs. A statue base found reused in the church of S. Prisca on the Aventine affords new evidence (*CIL* VI 1742). Dedicated by the corpus omnium mancipum before 359 C.E., it represents the sole attestation of this corpus. Accordingly, their professional function has long eluded scholars. This paper argues, however, that the corpus omnium mancipum was a guild of contractors, synonymous with the redemptores of the earlier period. In identifying this corpus as such, new insights are offered into the organization and vitality of the building industry in fourth century Rome, which has long been thought to have witnessed stagnation in the second half of the century.

Already from the first century B.C.E. the epigraphic record associates mancipes with the contracting of building (*ILLRP* 465 and 465a). The language in the present inscription does the very same for the corpus omnium mancipum, as it finds its closest parallels in formula commonly used in building inscriptions from 4th century Rome. The subject of the dedication, Memmius Vitrasius Orfitus, bolsters this association. Orfitus, prefect of Rome twice in the 350s, saw to the construction of a shrine to Apollo during one of his prefectures and was exiled for peculation shortly after his second (*CIL* VI 45= *ILS* 3222 and *Amm.* 27.3). It is likely that the embezzled funds were directed toward building in the city. Taken together all the evidence suggests that the corpus omnium mancipum were contractors associated with building in Rome during the fourth century. As a consequence of this identification it is argued that Rome witnessed, for the first time, the formation of integrated professional associations, a process that indicates the consistent demand for building. Evidence for such demand is borne out by further analysis of the epigraphic and archaeological records. Between the 350s and 370s both data reveal continual construction by the praefecti urbi, the emperors, and the bishops of Rome, and often on a significant scale. These conclusions confirm the vitality of the building industry and effectively challenge any notion of stagnation or decline.

Coming to Our Senses: The Audio-Visual System of a Myth in Marble

Stephanie A. Hagan, University of Pennsylvania

This paper examines the way ancient interior decoration evoked sense memories and heightened attention to particular senses, thereby shaping the embodied experience of an interior space. As a case study, I examine the Late Antique

"Basilica of Junius Bassus" (331 C.E.) on the Esquiline Hill in Rome, a building revetted in splendid figural panels of opus sectile (marble inlay). This investigation arises from my broader reappraisal of the now-lost hall, usually identified as a domus but very likely a monument dedicated to public use. The very act of stepping inside the hall brought the viewer-visitor into a space that was not only physically but also sonically demarcated. The marble walls and floor would have comprised a resonant, echoing "phonosphere" altogether different and distinct from the noise of the nearby Macellum Liviae, with its clacking carts and cries of vendors, and the fracas of comings and goings through the Porta Esquilina.

Just as architectural structures and their materials affect aural experience, the visual components of a program could call upon the sonic dimension of a space. I examine one of the surviving marble panels from the hall to illustrate this phenomenon. The panel depicts the handsome youth Hylas, lover of Heracles, who voyaged with the Argonauts. According to myth, when he went to fetch water from a spring, the nymphs there were so taken by his beauty that they grabbed hold of him and dragged him down to their watery home.

The Hylas tale had rich sonic dimensions, a fact to which viewers in late antiquity would have been attuned. In one version of the tale, Hylas cries out, and his wailing rebounds through the woods. Other stories recount the ringing cries of the search party looking for Hylas, associating the youth with the idea of echo in myth and cult traditions. The story's presence in the marble hall extended to the viewer-visitor a particular invitation to connect the intellectual and sensory experience of the hall, and created possibilities for expanded visual and aural vistas.

Other aspects of the building, such as the depiction of a consular procession and animal combats, brought other sense memories into play as well. Supported by ancient texts on viewing and reception of aural architecture, and informed by recent studies of ancient soundscapes in city streets, catacombs, and other built environments, this paper integrates aurality into its account of Late Antique art and architecture.

Constantine in the Imperial Palace at Serdica

Eric Charles De Sena, Transylvania Alive Association for Cultural Heritage

One aspect of Constantine's reign which has not been thoroughly addressed is his presence in the city of Serdica. Records indicate that this emperor relied upon Serdica as one of his primary bases between December 316 and 330, during his conflict against Licinius, the development of Constantinople, and his military campaigns along the Danube. Whilst in Serdica, Constantine resided and conducted business from a palace constructed during the reign of Galerius.

Following the abdication of Diocletian and Maximian in 305 C.E., Galerius, a native of Serdica, governed the Balkan/Danubian provinces with Serdica serving as one of the administrative centers. It was at this time that an imperial palace was constructed, possibly around the emperor's family residence. Records indicate that Licinius was occasionally based in this city, but we are uncertain of the duration of his sojourns. Although he was born in nearby Naissus, Constantine only began to utilize Serdica as a center of power in December 316, after the battle at

Cibalae. It appears he governed from Serdica primarily during the winter months, and especially between 316 and 323, with a final sojourn in 330.

While the identification of most imperial palaces in the Balkan region have been ascertained, there are still doubts as to the specific location of the palace in Serdica. The most frequently suggested location is in the center of modern-day Sofia, in association with the Church of St. George Rotunda. This complex consists of well-preserved features, including a bath complex and spaces that may have been ceremonial. Hasty excavations in the 1950s, with some later work in the 1970s-80s, revealed architectural features that may have been associated with the St. George Rotunda complex. As there are many areas of ancient Serdica which have not been investigated archaeologically, some scholars suggest that the palace was situated elsewhere, including within an area designated as Serdica II, a district of the city that was walled in the fourth century C.E.

In order to investigate the location and character of the imperial palace in Serdica, the author examines the archaeological evidence of the city in light of the needs of an emperor and our knowledge of well-studied palaces throughout the Empire.

Excavation in the Late Antique City at Golemo Gradište, Konjuh, 2016-2017
Carolyn S. Snively, Gettysburg College, and *Goran Sanev*, Archaeological Museum, Skopje

The international project under the auspices of Gettysburg College and the Archaeological Museum in Skopje, R. Macedonia, continued work at the anonymous, Late Antique city at Golemo Gradište. Excavations were conducted at the Episcopal Basilica and the Northern Residence in the lower city. Two long-term goals, investigation of ecclesiastical architecture and of the urban plan, merged unexpectedly in the discovery that in their final phases, church and residence formed a single large complex.

Excavation at the northwest corner of the basilica revealed a room whose corner had been marked off by parapet slabs; the space held a marble table, perhaps for deposition of offerings. Excavation in 2011–2012 had partly revealed a room north of the west end of the north aisle of the basilica, where a low wall separated the northeast part of the room. Investigation in 2017 suggests that corridors on south and west enclosed the still unidentified northeastern space, possibly a fountain or courtyard.

A roughly paved, east-west street separated the Northern Residence from a building to the northeast, but the street turned to the north before reaching the northwest corner of the residence. The northwestern room of the residence has been identified as a shop, accessible only from the street; unfortunately the various small finds and 26 coins—including one gold coin of Justinian I—do not indicate what was sold or manufactured there.

A large rectangular area between the entryway of the residence and the north wall of the basilica joined the two buildings into one large complex. It was created by cutting off the western side of the residence and reworking the northeastern annexes of the basilica. Of two large rooms at the east side of the rectangular area, the southern one was eventually abandoned, stripped of furnishings, and completely closed off. The northern room, 5.4 x 14 m, has revealed details of its roof:

a truncated central column still in situ in line with two other bases, and twelve samples of wooden beams and rafters for dendrochronological analysis. Partly stone paved, the room opened to the west and was not directly connected to either basilica or residence; its purpose remains uncertain.

The creation of this complex in the second half of the sixth century, when many Balkan sites were experiencing destruction, is intriguing not only for the history of this short-lived city but also for an obscure period in Late Antique Balkan archaeology.

SESSION 2C
Venus, Eros, and Eroticism: Religion and Society in the Roman World

CHAIR: To be announced

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

Ilaria Battiloro, Mount Allison University, *Marcello Mogetta*, University of Missouri, and *Laura D'Esposito*, Parco Archeologico di Pompei

Under the auspices of the Pompeii Archaeological Park, the University of Missouri-Columbia and Mount Allison University have launched a new research project with the objective of resuming the study of the Sanctuary of Venus in Pompeii. The cult place of the poliadic deity of the Roman colony, located on a prominent site near Porta Marina, was first excavated in the late 19th and early 20th century, following which its earliest remains have been traditionally assigned to the early Roman phase (post-80 B.C.E.). The results of more recent excavations (2004–2007), only partially published, have revealed tantalizing evidence of architecture and votive deposits below the first monumental temple and precinct, whose chronology has also been revised to suggest a significantly earlier date (130–120 B.C.E.). Thus, the overall interpretation of the site has been challenged, suggesting that a sacred complex was already present in the Samnite period (third–second century B.C.E.). Developing from this hypothesis, the newly launched Venus Pompeiana Project aims to clarify date, extent, and internal organization of the original sanctuary, and the nature of the rituals that were performed therein, detailing the main transformations that occurred in this area of Pompeii with the transition into the Roman phase. We present the outcomes of the first season of photogrammetric survey and targeted excavation carried out at the site. The activities, which are part of a three-year program, complement the research already undertaken with new descriptive and spatial data, aiming to develop best practices for the integrated digital archiving and analysis of old finds and newly excavated data. By reopening a trench first excavated in 2006 in the open court east of the temple podium and expanding it to sample a section of the eastern portico, new features predating the standing complex have been exposed. Their architecture and stratigraphy demonstrate that in the second century B.C.E. the area had a different spatial organization. While based on the same alignment of the later sanctuary,

the block was originally divided into two distinct sectors, clearly separated by a narrow alley. Future work on site will further clarify the nature and function of the two sectors. The initial results, however, may also have important implications for the broader understanding of the topography of a crucial quadrant of Pompeii facing onto the Via Marina and in direct relationship with the Basilica.

The Terracotta Statuettes of Eros from Larinum
Elizabeth C. Robinson, University of Dallas

This paper investigates a group of terracotta statuettes of Eros found at the site of Larinum (Molise, Italy). These seven statuettes range in date from the third century B.C.E. to the second century C.E., and include previously published pieces as well as one unpublished piece. Three of the statuettes were identified erroneously in an earlier publication as figurines of Attis, and therefore were associated with the adoption of the cult of Cybele at Larinum. A careful reading of the previous publications related to these works, combined with the opportunity to evaluate the statuettes in person and obtain photographs of them, has made it clear that the earlier associations with Attis can no longer be upheld. Instead, most of these pieces belong to a larger corpus of statuettes associated with the worship of Venus at Larinum, while one is funerary.

The revised identifications of these statuettes change our knowledge of the religious landscape of Larinum, particularly in the Hellenistic period. The statuettes of Eros can now be studied in connection with other sculptural works associated with Venus from this time, particularly a group found together at a sanctuary located within the city walls. The presence of three or four terracotta statuettes of Eros alongside a terracotta Venus and a bronze Mars suggests that this group of deities may have played a more important role in the religious life of the town than previously thought. It also implies that the three deities were worshiped together at this site in the Hellenistic period.

The new identities of these pieces also call into question the popularity of the cult of Cybele at Larinum in the early Empire. Previous publications stated that the cult of Cybele was assumed to have been adopted at Larinum as early as the Julio-Claudian period based on the presence of the terracotta statuettes incorrectly identified as Attis. Now, however, secure evidence of Cybele's cult at the site dates only to the late second or early third century C.E.

The information gained from the revised identifications of these statuettes matches nicely with recent research on the site of Larinum that shows that people from the town were participating in the broader Hellenistic koiné from the fourth century B.C.E. onward. The statuettes of Eros show the adoption of cults and sculptural types that were popular throughout the Mediterranean, and provide proof of Larinum's roles and relationships at this time.

Veiled Venus and Lar Ruralis: Two Terracotta Figurines from the Ostia Synagogue
Mary Jane Cuyler, University of Sydney

During the 1962 excavations at the synagogue at Ostia, two mold-made terracotta votive statuettes came to light (Ost. Inv. 12540, 12541). Although they were

known from archival photographs, they have never been published. Two type-written inventory cards provide the precise context of their discovery in a trench by the door of the passage between the corridor and the meeting hall, beneath the packed-earth level designated as the "fourth surface." The card of each statuette indicates that it was found together with the other. This paper first presents an iconographical and functional interpretation of the figurines before assessing the significance of their findspot in the synagogue.

The first statuette is a representation of a nude, veiled Venus flanked by her sons Eros and Priapus. For this figurine we have identified precise comparanda from contexts dating to the first century C.E. The second statuette is more enigmatic; it is a representation of a barefoot, bareheaded young man wearing a belted tunic. In his left hand he holds a patera and in his right he holds a bucket of fruit (grapes?). He carries a wicker, half-ovoid rucksack on his back. The youthful countenance, the short curly hair, and the belted tunic suggest that this young man represents a Lar. Lares are often depicted carrying a patera and a cornucopia; in this case, a simple bucket of fruit replaces the more elaborate cornucopia.

The proximity of these statuettes, discovered in the same context, suggest that they represented part of a group from a lararium. Statuettes of gods and goddesses are frequently in the shrines along with the twin Lares, but Venus is by far the most common. The presence of lararium figurines in an ancient synagogue requires careful examination, because Jewish law prohibited the use of idols. The final portion of the presentation turns to an analysis of the precise find-spot of the statuettes based on a comparison of the stratigraphy we identified in 2011 when the Ostia Synagogue Project excavated in the area adjacent to the trench in which the objects were found. The context in which the statuettes were discovered appears to be a floor that was in use in a very early phase of the building.

The Business of Bodies in Ancient Rome: A Return on Investment Study
Robert Stephan, University of Arizona, and *Charles B. Hintz*, University of Arizona

Prostitution, "the world's oldest profession," played a prominent role in Roman social and economic life. Although prostitution has been traditionally conceived of as a private, intimate encounter between two individuals, the economic networks that facilitated these interactions stretched far outside the bedroom. Recently, scholars have explored the economic underpinnings of the prostitution industry in ancient Rome and the broader role of prostitution in the ancient world. While these studies have greatly enhanced our understanding of the financial standing and cultural perception of prostitutes, the economic incentives for procurers (pimps) has largely been ignored.

This project builds on these previous debates by investigating the return on investment for pimps in ancient Rome. In order to better understand the market dynamics underlying the prostitution industry, this study combines historical data from governmental legislation and common graffiti, archaeological evidence from the brothels of Pompeii, and comparative ethnographic parallels from early modern America. In doing so, it establishes rough costs for engaging in the procurement industry—slave purchase and upkeep, real estate, health care, advertising, and protection—and balances those expenditures with estimates for income

generated by the prostitutes' services. Preliminary results suggest that pimps in the Roman world might expect approximately a ten percent return on investment over time, a relatively lucrative business compared to the agricultural alternative. In addition to deepening our understanding of prostitution and procurement in the Roman world, this return on investment study provides a model through which other industries in the ancient Mediterranean might be assessed and compared. This alternative approach to ancient socio-economic dynamics has the potential to provide significant and novel insights into micro and macro level interactions in the past.

A Rare Position: Roman Spintriae, Archaeological Context, and Ancient Erotica
Katherine A. P. Iselin, University of Missouri

The study of ancient erotica is often a difficult endeavor, one plagued by incomplete museum inventories or inaccurate information by early modern writers. Ancient artifacts featuring sexual imagery were frequently segregated from their non-erotic counterparts by early modern scholars and collectors, but still occupied a highly collectible status. This paper examines an erotic object that has inhabited this ambiguous position since the Renaissance period: Roman spintriae. These quarter-sized tokens, produced during the first century C.E. and usually lacking proper archaeological excavation, feature couples engaged in sexual activity on one side and a legend on the other. Their function is unknown, but the most popular theories are brothel or game tokens (although neither is based on archaeological evidence). Significantly, in his study, "The Spintriae as a Historical Source," T. V. Buttrey gave the spintriae chronological context when he die-linked them with tokens featuring Imperial portraits from the first half of the first century C.E., thus confirming they were issued by the state (*Numismatic Chronicle* 7:13 [1973] 52-63).

Due to the popularity of numismatics in the Renaissance and the erotic imagery on them, spintriae were highly sought after by collectors. This, in turn, has resulted in very few of them having a reliable archaeological context or even a traceable provenance. Over three hundred specimens have been published to date, although the majority of scholarly works focus on cataloging specific museum collections and almost all the others are found in auction catalogs. Fewer than ten have been found during the course of an archaeological excavation, none of which have been fully analyzed in conjunction with other examples of spintriae. This paper aims to examine these specimens and investigate how the archaeological contexts in which they were found can help clarify our understanding of these perplexing objects. Additionally, the iconography found on spintriae is part of a broader visual language used during the Roman period in a number of media. Contemporary objects with similar imagery, such as terracotta lamps or wall paintings, are also explored as they have a greater presence in the archaeological record. By bringing together the archaeological evidence available for these spintriae and contemporary erotica, we can gain a better understanding of these objects that for so long have not been fully comprehended.

Two Newly Discovered Marble Statues of Aphrodite from Petra's North Ridge
Mark Abbe, University of Georgia

In 2016 excavations by the Petra North Ridge Project discovered two imported under life-size marble statues of Aphrodite amidst fourth century C.E. domestic debris. The pair, which may have been displayed as a pendant group in the private bath of a villa urbana near where they were found, constitutes unprecedented and well-contextualized examples of domestic marble statuary in Petra and are among the most important marble sculptures to have been found in Roman Arabia in recent decades. While both statues of Aphrodite share the well-known Capitoline type pose, the goddesses' costumes and supporting Eros figures provide different narratives that frame and characterize the central iconic image. Interestingly both statues display extensive repairs and are notably different in technique, style, and polychrome finish: one displays subtle pigment mixtures in combination with gilding, while the other has a more simplified graphic painting style. Style and technique suggest dates around the first century C.E. for one and the third century for the other, respectively.

The study of sculpture in the Roman Near East has rapidly developed in recent years thanks both to detailed object-oriented research and a diversity of methodologically innovative approaches centered around contextual studies. The North Ridge Aphrodites not only provide new evidence for long-standing questions about the imported material and workshop production of marble sculpture in the Roman Near East, but they also present a unique opportunity to explore important broader historical and cultural perspectives, including the domestic display of marble statuary in the region and the diverse cultural responses to it, the adoption of Hellenistic Roman domestic practices among the extra-Mediterranean elite, and the fate of such statuary in the changing circumstances of Petra and Roman Arabia in late antiquity.

SESSION 2D
New Methodological Approaches in Archaeological Problems

CHAIR: *Michael Galaty*, University of Michigan

Rethinking the Monograph: Design and Audience in the Digital Age of Excavation Reports
Tyler Duane Johnson, University of Michigan, and *Matthew C. Naglak*, University of Michigan

Since 2007 the University of Michigan's Gabii Project has conducted ongoing survey and excavation of the ancient city of Gabii, situated approximately 20 kilometers east of Rome. During this time, the project has maintained a commitment to techniques of digital field documentation, accruing an extensive body of data ranging from standard field observations to photorealistic 3D models of architecture and stratigraphy. The recent release of the first volume in the Gabii Project's final publications series, using an entirely digital interface for the web-based

publication of this data, presents an invitation to revisit the standards of archaeological publications today. This publication, A Mid-Republican House From Gabii, produced in lieu of a traditional printed monograph, reports in extensive detail the life and death of a single mid-Republican house, synthesizing the results of the excavation into a single digital format featuring a multi-layered textual narrative, a fully searchable database, and an interactive 3D representation of the archaeological site itself.

This accomplishment represents a step toward a new type of archaeological communication intended to serve both the academic community and the broader public discourse, and in this paper we make the case for iteration and user testing as absolutely necessary components of any digital archaeological publication. With this aim in mind, the authors recently undertook a study seeking to understand how academic readers were engaging with the publication and determine possible future directions for its platform. A series of interviews with specialists working in archaeology and related fields were conducted in which respondents, after a period of semi-structured engagement with the publication, were asked to evaluate various aspects of their experiences as well as offer suggestions for improvements. This paper presents the initial findings of this study, briefly recounting the process which led to the development of the the Gabii Project's current interface before discussing the major challenges and insights arising from this first round of user testing. The paper concludes by laying out future directions for the Gabii Project's publication strategy, relating these to the broader discussion occurring within archaeology about how we are to take advantage of new possibilities for publication in the digital age.

Integrating Multispectral Imaging, Reflectance Transformation Imaging (RTI) and Photogrammetry for Archaeological Objects

Chantal Stein, Conservation Center, Institute of Fine Arts, New York University, *Emily Frank*, Conservation Center, Institute of Fine Arts, New York University, and *Sebastian Heath*, Institute for Study of the Ancient World, New York University

This project utilizes a 3D-model built with photogrammetry as scaffolding for the combined display and analysis of other types of imaging data, such as Reflectance Transformation Imaging (RTI), and broadband Multispectral Imaging (MSI).

Photogrammetry, RTI, and broadband MSI are well-established imaging techniques widely used by cultural heritage professionals. These techniques have seen rapid adoption by archaeologists and conservators working together in the field. While recognizing that no technique produces a perfect or undistorted representation, the data that this project integrates complement each other very effectively and result in high-resolution and visually expressive renderings that emphasize physical shape, surface variability, and spectral properties. Combining techniques facilitates very detailed study and visualization of an artifact that can highlight otherwise invisible features and effectively communicate these aspects to scholars and the general public without requiring direct inspection or handling of the object.

Three-dimensional models were built of a stone object from Sardis, Turkey and an Egyptian painted wood object using Agisoft Photoscan Pro. RTIs were created of the worked surfaces on each using the RTIBuilder 2.0.2 available from Cultural Heritage Imaging (CHI). MSI images were processed with the add-in for nip2, the graphical interface of the free processing system VIPS, developed as part of the CHARISMA project, available from the British Museum. So-called "connection images" were used to integrate and align the data sets. These evenly lit images, taken with the same camera position and parameters as the auxiliary data sets, are included in the set of images used to build the 3D model with photogrammetry. The data sets were combined and visualized using Blender, an open-source 3D graphics and animation software.

We stress that this project uses software, equipment, and methods that are readily accessible to conservators and archaeologists in museum photo studios and in the field. We have also established a workflow for combining potentially any source of imagery. This technique shows promise for many applications where advanced visualization can contribute to analysis and conservation, particularly in situations where ongoing contact with the object is limited or ill advised. In summary, the successful combination of RTI, MSI, and photogrammetry data sets results in 3D models that support compelling interactive visualization and analysis of archaeological materials.

Preliminary Sketches by Onesimos: Using RTI to Understand Artistic Practice
Julianne Cheng, Emory University

Preparatory sketches beneath the painted lines of Attic red-figure vases reveal how artists thoughtfully worked through ideas—adding new elements, modifying figures, or entirely changing their compositions. Widespread on Attic red-figure vases but varying among artists, these preliminary sketch lines shed light on artists and their approach to painting. The final painted lines and firing process of Athenian pottery, however, generally obscure these sketches. A photographic method known as Reflectance Transformation Imaging (RTI) employs a series of different lighting conditions to create a composite image that renders surface details, such as preparatory sketch lines, especially legible. The application of RTI to Attic vases has yielded particularly fruitful results in the study of the preliminary sketch lines by the Late Archaic cup-painter, Onesimos. Before he laid down the elegant painted lines on his cups, Onesimos would first make elaborate sketches. Impressed into the leather-hard surface of the clay with a sharp tool, these drawings, composed of series of shallow lines, guided the final composition. This paper focuses on how Onesimos used preparatory sketches, so as to better understand his working process and artistic personality. In this investigation, RTI was applied to over a hundred cup fragments attributed to Onesimos; for comparative purposes, the work of several additional Late Archaic painters was also examined.

The preliminary sketch lines reveal that Onesimos shared similar drawing techniques to his contemporaries, such as Makron and the Kleophrades Painter, and that their approaches developed out of the Pioneer Group, including Euphronios and Euthymides. Like his contemporaries, Onesimos used multiple, quick lines to sketch out the general shape of figures, rather than the precise, single

lines employed by the earlier generation. Onesimos, however, was particularly concerned with the anatomy of the body and capturing a figure in motion. Preliminary sketch lines reveal him rotating the leg of an inebriated satyr; this turn of mind reveals an artist carefully considering a figure in motion. He used them to develop and define the torsion in the neck of a dancing youth and the strained leg muscles of Orpheus in flight. His preparatory lines were often more detailed than the final painted rendition, allowing him to explore the dynamics of the body and drapery. RTI reveals crucial information beneath the final composition, giving us better insight into painting in ancient Greece.

The Heat of the Night: Results of Aerial Thermography Performed at Zagora and Methone, Greece.
Hugh Thomas, The University of Sydney

Thermal infrared imaging, or thermography, is the remote sensing technique of detecting variations in ground temperature caused by exposed or subsurface archaeological remains either absorbing or radiating heat. Despite its conception in the 1970s, the practice has to date been rarely utilized, as a result of the high cost of the technology and the complex interplay of environmental variables. In 2002, after performing a comprehensive review of the technique, Bryan Haley, Jay Johnson, and Richard Stallings wrote that with archaeological aerial thermography, "success rates of thermal imagery may be somewhat unpredictable," stating further that it "should be considered an experimental technology". However, recent studies have demonstrated that thanks to developments in UAVs and thermal cameras, the technique can effectively reveal subsurface archaeological remains. Despite this, the use of aerial thermal imaging is still in its infancy, with limited thermographic studies often only performing analysis for a few days, stifling their ability to document the effects of environmental change on the technique.

This paper aims to dispel the myths about aerial thermography by reporting the results of two field seasons conducted during 2017. The Zagora Infrared Photogrammetry Project (The University of Sydney and the Australian Archaeological Institute at Athens) undertook a six week thermal investigation of the Early Iron Age site of Zagora and the surrounding hinterland. A further six weeks of thermographic analysis was performed for the Ancient Methone Archaeological Project (UCLA), where excavations are currently exploring the settlement famously destroyed by Philip II of Macedon in 354 B.C.E.

This paper outlines a multitude of thermal anomalies detected during the course of both seasons, with the work at Zagora alone revealing over 60 thermal anomalies caused by archaeological remains, including unknown structures outside the fortified settlement, a possible kiln, and potential evidence of a double-storey building. Furthermore, the paper presents a detailed analysis of environmental conditions and their impact on the technique. Finally, as both sites have been the focus of intensive geophysical survey and excavation, it allows the results of the thermographic technique to be compared with more common remote sensing and geophysical practices such as Ground Penetrating Radar and Magnetometry, illustrating that the technique can, in some cases, provide very cogent results.

SESSION 2E
Eating and Drinking in the Ancient World

CHAIR: *Gypsy Price*, Appalachian State University

Drinking in Hellenistic Times: Standardization and Local Variation
Alexandros Laftsidis, University of Cincinnati

The existence of common elements among the pottery records of most areas within the Hellenistic world is an undeniable fact. The phenomenon has been described by several researchers, including Stella Drougou and Konstantina Gravani, as a Hellenistic ceramic "koine." It has not been, however, extensively studied so far, and a clear definition is still missing. This is the topic of my dissertation, in which I am examining a large volume of published tableware from the entire area of the modern state of Greece in order to investigate the nature of the Hellenistic ceramic "koine" over time. An investigation of "koine" patterns often reveals the existence of local particularities. These particularities of regional and local workshops have also been previously pointed out by researchers, sometimes to the point of negating the existence of any Hellenistic ceramic "koine." This paper aspires to show that in most cases deviation from the Hellenistic ceramic "koine" concern drinking vessels. Several areas of the Hellenistic world have distinctive preferred drinking shape(s). For instance, Boeotia shows a preference for Hexamilia mugs and two-handled cups; on Crete there is a plethora of different local types of cups; Ionian-type kylikes emerge as a popular drinking vessel in Avdera, Thrace. At the same time, many areas produce local variations of more widespread drinking vessels, such as kantharoi. On the contrary, pouring vessels and vessels for food service present an impressive uniformity throughout the Hellenistic world. The interpretation of the phenomenon is obviously connected to the pottery tradition of each area, but additional explanations probably reside with the functional and psychological aspects of drinking. Unlike eating, the consumption of alcoholic beverages and their effects on humans result in the creation of an intimate atmosphere in which objectives such as entertainment, philosophical debates, and even renegotiation of social status can be more effectively pursued. Hence, from a consumption perspective, creating locally meaningful drinking vessels seems fully justifiable.

Locating the Minoan Kitchen
Micaela Carignano, Cornell University

In the study of Minoan domestic architecture, the kitchen is conspicuously absent from the typical suite of rooms in a house. Indeed, before the Postpalatial period, permanent hearth structures were rare in Minoan houses. As a consequence, even if there were dedicated kitchen rooms, these might easily be lost owing to poor preservation or excavation technique. The absence of the kitchen in the archaeological record is concerning because, thanks to the key role of food and commensality at the center of social structures, understanding how space is allocated

to food-related activities is crucial to any study of domestic life. Fortunately, close scrutiny of the artifact assemblages within rooms does expose patterns in the location of cooking activities in houses. In this talk, I consider the possible locations of cooking in Minoan houses from the Neoapalatial period, as well as the social implications of different uses of space within the home. I examine a set of case studies where the ceramic, faunal, and botanical finds reveal specific spaces used for food preparation and incorporate these findings with a survey of other published domestic sites to identify models of space usage in elite and non-elite houses. I find that the degree to which homes employed dedicated kitchen spaces and the visibility of cooking activities within the house depended upon the social status of the residents and on the size and density of the surrounding settlement. Therefore, the Minoan kitchen is not missing, but it is extremely variable. This variation can tell us about the social circumstances of the cooks and other household members. These findings not only shed light on room function in Minoan houses, but also speak to matters such as social differences within the household and the role of cuisine and feasting in social differentiation between households on Neopalatial Crete.

Sometimes Pigs Fly: S. Anna Zooarchaeology Project Preliminary Results (Seasons 2015-2016)

Roberto Miccichè, University of South Florida, *Natascha Sojc*, Klassische Archäologie—Universität Augsburg, *Pietro Valenti*, Università degli Studi di Palermo, and *Luca Sineo*, Università degli Studi di Palermo

The relationship between the Demeter cults and the ritualized offering of piglets is a cornerstone of many discussions about ancient Greek religion. In Sicily this strong connection is evident in the visual arts and is corroborated by the existence of numerous sites attributed to Demeter and Kore. However, this evidence has rarely been supported by systematic zooarchaeological studies.

Serving the ancient city of Agrigento from the sixth to the fourth century B.C.E., the peri-urban sanctuary of S. Anna appears to have been mostly focused on the worship of Demeter and Kore. The new excavations at this sanctuary greatly increase the Sicilian zooarchaeological record and provide an excellent case study for exploring, under an interdisciplinary approach, the broader issue of ancient Greek ritual practice.

The analyses currently involve a sample of 4,175 specimens. Among the mammalian remains, the almost exclusive presence of pig, which accounts for 94.3%, is immediately discernible. The vast majority of the pig remains belonged to individuals culled when very young: mostly within the first month of life. The use of these animals for ritual purposes is highlighted by the considerable quantity of bone fragments exposed to high temperature fire that could be indicative of ritual actions performed on an altar.

As part of the project, a pilot experiment was conducted with the intention to recreate the mystery rite of megarizein as reported by ancient literary sources. Following a framework largely used in forensic taphonomy, we placed two thirty-day old piglet carcasses inside a karst cave with the aim of analyzing their putrefactive

phenomena. Unexpectedly, after only seven days, the carcasses were already in their dry phase and almost completely skeletonized.

This result shed new light on the contentious topic about the amount of time that occurred between the deposition of the piglets and the subsequent recovery of their rotted remains. The rapid progress of the decomposition processes recorded by our experiment allows us to speculate that only a brief lapse of time between the deposition and the recovery of the piglet carcasses was necessary.

Even if these are preliminary data, the faunal assemblage of S. Anna is currently one of the most numerous and therefore statistically valid samples from a sacred context in Greek Sicily. The absolute predominance of pig remains is strongly suggestive of a cultic context connected with Demeter where the piglets were used both for sacrificial performance and as part of sacred meals.

The Zooarchaeology of Ritual Meals Across the Agricultural Transition in the Southern Levant

Jacqueline Meier, Trent University

During the transition to agriculture, feasting served a variety of important roles for early farming communities, such as increasing group cohesion. Yet, meat consumption also served important social roles at a variety of other scales. For example, the repeated consumption and intentional deposition of the remains of smaller meals likely reinforced and constructed social memories among group members. Research on the role of shared meat consumption enables a more nuanced picture of social change during the forager-farmer transition. This paper presents evidence of animal selection and use for meals of varying scales and how they shifted once domestication processes began. We investigate ritual meals at Kfar HaHoresh, the only Pre-Pottery Neolithic site in the southern Levant that served a primarily mortuary function. Kfar HaHoresh also presents a unique view of changing animal consumption practices as it comprises the longest continuous Pre-Pottery Neolithic B period sequence in the Mediterranean Hills region (10,600–8,700 cal. BP). We compare the faunal composition of new feasting and midden deposits recently excavated at Kfar HaHoresh. We employ classic zooarchaeological and taphonomic methods to reconstruct subsistence practices and situate them in a regional context through a survey of evidence from neighboring sites. The results show continuity in the use of different middens at Kfar HaHoresh over time. However, feasting practices changed at the site once animal domestication began. These results illuminate the subsistence practices that distinguish social consumption events and symbolic animal use at a ritual site from those more widely shared at habitation sites across the region as farming life-ways developed.

The Diet of Romans and Langobards in the Veneto from Late Antiquity to the Early Medieval Period

Ashley B. Maxwell, University of South Florida, and *Robert H. Tykot*, University of South Florida

This research compares Roman and Langobard populations from the fourth to seventh century C.E. using stable isotope analysis on human and faunal remains to investigate diet in the Veneto. Limited isotopic research has been conducted in the Veneto, Italy during the transitional period after the fall of the Western Roman Empire and arrival of the Germanic Langobards in the sixth century C.E. Questions remain of the local implications of diet during this period of instability, especially regarding changes in the political economy with the arrival of the Langobards.

A total of 38 human individuals and five faunal remains from four sites in the Veneto were utilized for this research. Of these, twenty human and four faunal remains were sampled from Sovizzo, a seventh century C.E. Langobard site located near Vicenza, while seven remains were sampled from Bardolino, a seventh century Langobard site located in Verona near Lake Garda. Eleven individuals and one faunal remain were sampled from Desmonta and Peschiera, two late antiquity sites located in Verona.

Stable carbon and nitrogen isotope analysis was performed on prepared bone (femoral shaft or ribs) samples at the University of South Florida. The results indicate variations in diet within and between the populations. The late antiquity sites are more consistent with a C3 plant diet with some marine and terrestrial animal contributions, while the Langobard sites are more varied. Bardolino clusters around a C3 terrestrial animal diet with a marine component, while Sovizzo is more varied. For example, some individuals consumed a similar C3 terrestrial diet with marine contributions, while another group of individuals had a significant contribution of C4 plants.

This study shows that in late antiquity people in the Veneto still relied on a traditional Roman diet of fish and C3 resources after the fall of the Western Roman Empire; however, the incoming Langobards show variation in their utilization of resources, with some consuming more of a C4 diet with millet. Millet, often considered a low status food source, has been shown to increase during the Early Medieval period in northeastern Italy, perhaps as a response to unstable conditions. This may suggest that the Langobard initial transition into Italy was stressful on parts of the population. The Langobard's traditional diet is generally meat-based, as pigs were a staple before they migrated into the Veneto. This preliminary research may indicate a change in resource allocation during the initial transition into Italy for the Langobards.

SESSION 2F
Landscapes and Topography in Greece

CHAIR: *Rebecca M. Seifried*, Institute for Mediterranean Studies, Foundation for Research and Technology—Hellas

The 2017 Mazi Archaeological Project: Test Excavations and Site Investigations
Sylvian Fachard, American School of Classical Studies at Athens, *Alex R. Knodell*, Carleton College, and *Kalliopi Papangeli*, Ephorate of Antiquities of West Attica, Piraeus, and Islands

Since 2014 the Mazi Archaeological Project (MAP)—a synergasia between the Swiss School of Archaeology in Greece and the Ephorate of Antiquities of West Attica, Piraeus, and Islands—has conducted an intensive regional survey of the Mazi Plain and its environs in northwest Attica, Greece. The region bears special significance for its location in the borderlands separating Attica and Boeotia, as well as for the important land routes that run through it, joining the central and southern Greek mainland. In three field seasons between 2014 and 2016, we completed a pedestrian survey of the Mazi Plain in its entirety, with fieldwalking coverage of some 11.6 sq km in 2962 survey units. The main result of the fieldwalking component of the project was the diachronic quantification and collection of artifacts across the whole landscape. In addition, we recorded through GPS mapping and other forms of documentation 552 archaeological features, again aiming for as complete coverage as possible throughout the survey area.

The 2017 field and study season of MAP focused on several sites and features of particular interest. We conducted two test excavations: at Ancient Oinoe, the site of a fortified Attic deme; and at Kato Kastanava, a prehistoric site discovered in 2015. These excavations provided important chronological information and clarified aspects of the architectural phasing at each site. In addition, we conducted gridded collection and detailed architectural survey at several sites of particular interest, including two previously unknown prehistoric sites with Final Neolithic lithics and ceramics, as well as materials from the Early, Middle, and Late Bronze Age. High-resolution Differential GPS mapping and photogrammetry continued at several other sites (the Classical fortress and settlement of Eleutherai, the Classical/Hellenistic tower at Velatouri, a Classical/Hellenistic farm at Mesonychi, and the Byzantine church of Aghioi Theodoroi, among others). Finally, artifact study, especially by ceramics specialists, was completed for the entire survey area. We now have a comprehensive picture of the diachronic artifactual record of the Mazi Plain, as well as a complete record of the built environment, often supplemented by high-resolution recording in both traditional and technologically innovative media. This paper focuses on the excavations and other site investigations of 2017, against the backdrop of the wider regional study.

Boom and Bust in the Western Argolid: A Tale of Polis Formation
Melanie Godsey, University of North Carolina at Chapel Hill, *Machal Gradoz*, University of Michigan at Ann Arbor, and *Sarah James*, University of Colorado Boulder

This paper presents evidence collected from the intensive survey in and around the ancient city of Orneai by the Western Argolid Regional Project (2014–2016). Dense diachronic clusters of artifacts collected in this area present opportunities to analyze and interpret the formation and status of Orneai over time. First, these clusters offer the opportunity to trace the physical transformation of the city from scattered prehistoric hamlets to a wealthy Classical polis through a steady decline in the third through first centuries B.C.E. Second, these clusters challenge the ancient literary record, which describes Orneai as dependent upon Argos and even destroyed by the regional power in the late fifth century B.C.E. The archaeological evidence questions this traditional narrative to suggest that Orneai maintained a higher level of socioeconomic autonomy, and even prosperity, throughout the fifth and fourth centuries B.C.E.

An Iron Age cemetery and settlement are the earliest occupation on the slope of Orneai, found just to the north of the citadel. During the Archaic period, small pockets of habitation occurred across the hill slope and a possible "sanctuary" was constructed on a hill east of the acropolis. In the Classical period, activity increased on both sides of the acropolis with substantially more artifacts in terms of quantity and diversity, including fine ware, cooking ware, and industrial implements. Moreover, the large amount of Archaic and Classical roof tiles recovered from the slope of Orneai indicates a period of intense building activity. Combined with the ceramic evidence and architectural terracottas, these materials reveal the growing wealth of the polis in the Classical period. In addition to the increase in activity on the acropolis, a new satellite community appeared to the west that was active in the Classical period. Finally, the lack of evidence for Hellenistic and Roman roof tiles on Orneai, in conjunction with the small amount of contemporary pottery, suggests a decrease in activity, compared with the plentiful Archaic and Classical evidence.

Arguably, the evidence from Orneai indicates the existence of an internal socioeconomic system thriving at the edge of the western Argive Plain during the traditional period of Argive hegemony (eighth–third centuries B.C.E.). While the traditional disappearance of the Hellenistic and Early Roman periods so commonly found in Mediterranean surveys, in this case, is far less dramatic.

Biographies of Battlefields
Brandon Braun, UCLA

This project explores battlefield victory monuments in their contexts, approaching landscapes as repositories of memories. Battlefields are often studied for the battles, with focus on tactics and events. The landscapes are sometimes studied, but usually in terms of the topographical constraints that forced specific tactics. These approaches are useful, but little attention has been paid to the diachronic changes of a battlefield in the form of monuments.

Battlefield monuments create and contest meanings, as they frame a memory of the past for the contemporary present. Using literary sources, archaeological remains, and inscriptions as evidence, I analyze the diachronic development of these charged spaces and construct biographies of the battlefields. Comparison between spaces reveals patterns in commemorative frameworks and ancient usages of the past.

The battles fought at Marathon, Leuktra, and others are presented as case studies. These battles were recorded in both literature and the material record, particularly with commemorative monuments. The initial commemoration of the events, often in the form of burial mounds and trophies, do not come to exist from nothing, but instead are placed into pre-existing networks of memory. For example, the burial mound at Marathon was not the first mound at the site, as there are similar burials at the edge of the plain at Vrana and to the northeast at Tsepi. These other burials predate the Marathon tumulus by a millennium and do not approach the monumental size of the Classical mound, but nevertheless were visible in antiquity just as they are today. Later monuments also clustered around the tumulus, such as the inscribed stele mentioned by Pausanias (1.32.3) and an extant decree that mentions the honors performed for the Marathon dead, dating to 122 B.C.E. (*IG* II² 1006). The mound remained significant into the second century C.E. with dedications from Herodes Atticus. Through time, the mound was a site fitting for both public and private dedications.

The biography approach to the battlefield offers a more nuanced understanding of the spaces themselves. By analyzing the buildup of monuments at a battlefield, it is possible to trace political developments and motivations, leading to interesting questions such as why did Isocrates disparage the Theban trophy at Leuktra (6.10) while Demosthenes and Aristophanes praise the trophies at Marathon?

The Typology and Topography of Spartan Burials from the Protogeometric through Hellenistic Periods

Paul Christesen, Dartmouth College

Excavations conducted in Sparta between 1906 and 1994 uncovered fewer than 20 graves from the entire time span between the end of the Bronze Age and the beginning of the Roman period. A major change came in 1994 with the extension of archaeological protection to the entire area of ancient Sparta. That change produced a sharp increase in the number of rescue excavations in previously unexplored parts of Sparta and resulted in the discovery of an extramural cemetery and dozens of intramural graves.

Most of the information about the newly-discovered burials has been dispersed in the volumes of the *Archaiologikon Deltion* and has not previously been assembled and organized in order to make it analytically useful. I have recently completed that task, and in this paper I present the first comprehensive outline of Spartan burial practices based on archaeological evidence.

In the first part of the paper, I offer a summary of Spartan burial practice in the Protogeometric, Geometric, Archaic, Classical, and Hellenistic periods. A particularly important point is that intramural burials of adults continued to take place in the Archaic through early Hellenistic periods, despite the presence of at least one

extramural cemetery. Those intramural burials were concentrated along important roads and on the slopes of low hills.

In the second part of the paper, I compare Spartan burial customs with those in Argos and Corinth. That comparison leaves no doubt that the burial practices of Sparta, rather than being exceptional, were notably similar to those of its most important Peloponnesian neighbors.

In the final part of the paper, I consider the ramifications of these findings. The co-existence of both extramural and intramural adult burials in the Archaic through Hellenistic periods might seem to set Sparta apart from all other Greek communities. However, recent scholarship on Argive burials has made it clear that, there too, adults were buried both extramurally and intramurally in the Archaic through Hellenistic periods. Sparta and Argos thus align well with Corinth, where the use of intramural cemeteries continued through the Hellenistic period.

The co-existence of extramural and intramural burials in Sparta, Argos, and Corinth after the Geometric period calls into question the standard narrative of the development of Greek burial practice in the post-Mycenaean period. That narrative was constructed largely on the basis of evidence from Athens, and there now appears good reason to believe that Athens was, in this respect as in many others, atypical.

Peregrinations and Administrations: Using GIS to Assess the Itineraries of Travelers in the Mani Peninsula, 100–1950 C.E.

Rebecca M. Seifried, Institute for Mediterranean Studies, Foundation for Research and Technology—Hellas, and *Chelsea A. M. Gardner*, Mount Allison University

Travelers' accounts, whether written by ancient authors or modern-day adventurers, are often useful sources of information about archaeological landscapes and ancient sites. While scholars acknowledge the shortcomings of these accounts—particularly the lack of scientific recording methods and imprecise details regarding site locations—there is nevertheless a tendency to assume that early visitors recorded all the major sites in a given region. Scholars also tend to overlook the limitations of these journeys: the authors' personal interests and incentives, the restrictions imposed by difficult topography, and other external factors that may have prevented travelers from visiting certain areas. These issues raise two important questions: how reliable are ancient and modern travelers' accounts for understanding a given archaeological landscape, and what value might they lend to our knowledge of the sites and areas that these travelers intentionally bypassed or avoided?

The Mani peninsula in the southern Peloponnese provides an excellent case study for assessing the reliability of travelers' accounts, as well as exploring their potential to inform archaeologists about the "empty" areas on a map. While Pausanias provided one of the earliest accounts of ancient sites in Mani, the region became an attractive destination for early travelers beginning with Cyriac of Ancona's visit in the 15th century C.E. Other famous travelers included the Ottoman scribe, Evliya Çelebi, the Venetian cartographer, Vincenzo Coronelli, the English enthusiast of geography and history, Colonel W. L. Leake, and the acclaimed travel-writer, Patrick Leigh Fermor. At the same time, the less well-known itineraries

of Venetian and Ottoman administrative officials, who traveled through Mani to record its major settlements, help to contextualize the itineraries of other adventurers and provide insight into their motivations for selecting certain paths.

This paper uses Geographic Information Systems (GIS) software to assess the major itineraries taken by visitors to Mani over the past two millennia. It demonstrates that geographical considerations and political motivations often influenced the paths taken by travelers and limited the coverage of mountainous landscapes, with the result that some ancient sites were omitted from the written record. We argue that although traveler's accounts are important sources of information about archaeological sites, it is critical for modern scholars to continue investigating the "empty" areas on the map to which early adventures, for one reason or another, did not stray.

SESSION 2G
Multiscalar Interaction in the Bronze Age Mediterranean

CHAIR: *Aleydis Van de Moortel*, University of Tennessee

Craft Crossover: A Creative Response to Social Change
Emily Miller Bonney, California State University Fullerton

Joanna Sofaer argues in her book *Clay in the Age of Bronze* that creativity is a social phenomenon "that emerges from the relationship between society and people." She views creativity as the bringing together of previously unlinked ideas occasionally at a time of cultural collisions. This paper argues that an assemblage of Early Minoan IIA pots from the south coast of Crete constitutes such an instance of creativity at a time of social and architectural change at the sites where they were found. Examination of the fine grey ware pots excavated at Lebena Yerokambos and classified as pyxides, reveals that not all pyxides are created equal. While most are the compact, globular pots with incised arcs and herringbones found at numerous sites across the island just at the end of EM IIA, six examples are significantly larger than the rest of the collection and so similar in manufacture—size, the shaping of rim and base, wall thickness—that at a minimum they came from the same workshop. The potter(s) also deployed a broader range of decorative motifs including, most intriguingly, examples of craft crossover with decorative schemes that imitate works in other media, particularly—but not limited to—basketry. Three vessels from the cemetery at Koumasa also may belong to this distinctive group. The complexity of the designs, perhaps triggered by the introduction of the basket motifs, and the varied ways in which unusual tools were used, demonstrate the daring and skill of the potter(s) involved. The vases also suggest that the use and significance of the fine grey ware pyxis as a ceramic type needs to be reconsidered. While scholars usually describe them as a luxury product that may have contained a precious ointment, these particular vases challenge that interpretation. Luxury goods they certainly are, as they are among the highest quality exemplars of this distinctive ware. But their scale suggests they served some purpose other than as a container for an ointment. The fine grey ware pyxides found

elsewhere on the island, including those pieces from Knossos, do not appear to be comparable in size or decoration. Their appearance at a time of significant social and architectural reorganization at their respective cemeteries, suggests they are a creative response sensu Sofaer. I close by suggesting that comparably creative moments in Cretan material production might also be interpreted in this manner.

What is Mine is Not Yours: Potters' Marks as Indicators of Territoriality and Local Production in Protopalatial Mochlos

Georgios Doudalis, Ruprecht-Karls Universitat Heidelberg

This paper explores local pottery production and notions of competition and territoriality on the part of workshops at Mochlos during the Middle Minoan IIA-IIB period (ca. 1850–1700 B.C.E.). The discussion focuses on potters' marks and a statistical analysis of pottery from six deposits found beneath later Neopalatial buildings as well as a Middle Minoan II house at the western edge of the excavated settlement. These deposits produced a wealth of pottery, some of which preserved potters' marks.

While there are no extant physical remains of Protopalatial pottery workshops at Mochlos, other evidence, such as potters' marks, can shed some light on the competition for and acquisition of resources. In Mochlos the potters' marks appear in the MM IIA and MM IIB periods. They are pre-firing marks that consist of either two parallel incised lines, a single incised line, or a combination of line and semicircle. A variety of open and closed vessels were marked, all of which were of local clays tempered with purple phyllite, silver mica, or white metamorphic rocks. This is particularly important because the presence of the mark brands the final product and represents the source of clay that was used in its production. The local preference is also demonstrated in the statistical analysis of the pottery, where local vessels are more common than the imported wares, suggesting a consumptive preference for locally produced vessels.

This paper suggests that the potters' marks along with local pottery production and consumption evidence territorial workshop practices that prohibited the use of clay sources by potters from other regions. Potters from nearby sites were also participating in these practices by signing their own vessels with their own distinctive marks. These practices were established to define ownership of resources and market share. This complicates the model of production and consumption in the Bay of Mirabello, because it disrupts the presumed centralized role of the provincial center of Gournia in the production and distribution of pottery. Instead, it begs for an understanding of a more complex system where pottery workshops actively compete by controlling their resources and local markets.

Mycenae's Built-Road Network, Reconsidered

Gavin P. Blasdel, University of Pennsylvania, and *Thomas F. Tartaron*, University of Pennsylvania

The Late Bronze Age built-road network of Mycenae is undertheorized. Discussion of the roads, commonly referred to as M-ways, is limited to a functional

interpretation that plays out in two main paradigms that have dominated the debate. On the one hand, Hope Simpson, building upon the work of Steffen and others, has forcefully argued that the road network was primarily built for military use and that the chariot was its raison d'être. On the other hand, Jansen and Lavery have maintained that the M-ways were crucial to the Mycenaean economy and were strategically located to promote the movement of agricultural and other products within and even beyond Mycenaean territory. Even though many scholars would insist that the roads were built for multiple and overlapping purposes, these claims lack precision and are almost always made in passing. As a result, the debate has stagnated for well over a decade.

Drawing evidence from Mycenaean figural pottery depicting chariots and elite ceremony, as well as monumental Mycenaean architecture in the Argolid and the Corinthia, including buildings, tombs, and terrace walls, we argue that the M-ways did not simply facilitate movement between points. Instead, the "overbuilt" nature of the roads' Cyclopean construction imbued the network with a symbolic capital that made political statements about power and social relationships. Put another way, regardless of any functional role it may have had, the road system of Mycenae was bound up in the palatial center's ideological production of power through its structured movement and its conspicuous investment of labor and material. The M-ways, then, were monumental appendages of the citadel that emanated outwards from it and permanently inscribed the landscape of its territory with the ruling elite's claims to dominance and control. In short, we offer a new perspective on the M-ways that moves beyond purely functional interpretations and draws upon approaches to roads and movement across landscapes that have recently developed in world archaeology and anthropology (e.g., Snead, Erickson, and Darlington, eds., *Landscapes of Movement: Trails, Paths, and Roads in Anthropological Perspective* [Philadelphia 2009]).

Connecting the Pots: Assessing Late Bronze Age Interaction in the Southern Aegean

Paula Gheorghiade, University of Toronto

As proxies for connectivity, imports and luxury goods feature prominently in debates on trade, exchange, inter-island mobility, and cultural identity during the Late Minoan II–IIIB period on Crete. However, the exclusive focus on a single class of artifacts has largely restricted the study of prehistoric interaction during this time to one scale of analysis. This focus on maritime, long scale interaction has largely disregarded the movement of goods at a range of other scales locally, regionally and inter-regionally on the island. This paper considers interaction and mobility from a diachronic perspective during the LM IIIA–LM III B period, focusing on local ceramic assemblages, and not only imports, at key sites on Crete. Specifically, I consider local drinking practices at the sites of Kommos, Chania and Mochlos to assess variability in the integration and use of local and imported drinking vessels at these sites. Through a comparative, diachronic approach emphasizing pottery consumption, this paper assesses the degree of local and regional connectivity between these sites. More broadly, I aim to contextualize these regional and inter-regional interaction networks between communities on

Crete within broader southern Aegean networks of exchange during this period. By considering imports not only in isolation, as products of an increasingly connected, international culture, but as part of local assemblages, this paper argues that tracing regional communities of consumption through spatial and temporal assemblage comparisons is important for understanding prehistoric consumption practices, community affiliation, and inter-regional interaction during the LBA.

Rewiring the Mediterranean Web: A Case Study in Italo-Aegean Connectivity during the Bronze Age–Iron Age Transition

Kimberley A.M. van den Berg, Vrije Universiteit Amsterdam

In this paper, I demonstrate how assumptions about directionality can obstruct reconstructions of ancient networks. I do this by focusing on two groups of artifacts that are traditionally linked to Italo-Aegean connectivity during the Bronze Age–Iron Age transition, namely the Fontana di Papa type knives and the four-spoked "forked" wheel-shaped pinheads. Through an analysis of their chronology, typology, and distribution, I argue that, while these artifact types do attest to Italo-Aegean connectivity, the directionality previously reconstructed needs to be reversed. This reversal not only requires us to "rewire" the Mediterranean web in the outgoing Bronze Age, but also challenges us to reconsider network reconstruction more broadly.

Network theory has recently become a major component in the study of Mediterranean connectivity. One of the reasons that network theory is so popular is that it challenges the A-to-B directionality inherent in much previous thought pertaining to connections in the region. The paradox, however, is that once we move from network theory to network reconstruction, we continue to rely on this A-to-B directionality. Simply put, imports, influences, or individuals assumed to be foreign to place A and to originate in place B are often used to "connect the dots" between A and B.

The reconstruction of Italo-Aegean networks during the Bronze Age–Iron Age transition offers a case in point. Around 1250 B.C.E., new classes of bronze artifacts appear in the Aegean that continue to be present in the following centuries. As these bronzes resemble artifacts in the Italian peninsula, they are generally interpreted as evidence for Italo-Aegean connectivity and, in the case of some types, assumed to be of Italian origin.

I show this assumption to be problematic through my analysis of two of these "Italian" types. Although the Fontana di Papa type knives and four-spoked "forked" wheel-shaped pinheads each occur in both Italy and the Aegean, my analysis demonstrates that, whereas the pinheads may be viewed as an "Aegean" adaptation of an "Italian" type, the knives were likely first developed in the Aegean. Both types thus do not represent the directionality from Italy to the Aegean that was previously assumed, but involve different patterns of interaction stemming from the opposite direction.

The implications of this reversal in directionality are twofold. First, it offers a more nuanced picture of Italo-Aegean connectivity. Second, it shows that preconceived notions of directionality need to be confronted in the wider pursuit of ancient network reconstruction.

SESSION 2H
Epigraphy and Inscribed Objects

CHAIR: *Kevin Daly*, Bucknell University

Ostraka from the Athenian Agora, 2000–2016
James P. Sickinger, Florida State University

The institution of ostracism, by which fifth-century Athenians could banish for ten years individuals whom they considered a threat to civic order, is well-attested archaeologically. Excavations carried out in the Kerameikos and Agora during the twentieth century unearthed more than 10,000 sherds used as ballots in the process, and their study has enhanced considerably the limited picture of ostracism provided by literary sources. Recent work in the Athenian Agora, where votes of ostracism were conducted, has added still more details, including identification of the perischoinisma, the enclosure within which citizens actually cast their votes.

This paper reports on additional discoveries in the Athenian Agora, in the form of nearly 100 ostraka found in excavations since the year 2000. These new finds came to light in an area north of the Painted Stoa and in close proximity to the Classical Commercial Building. Some were found individually, but the majority belonged to two groups of more than 70 incised sherds. The new finds have much in common—in terms of their archaeological context, vessel types, and candidates' names—with another deposit of ostraka found nearby in the late 1990s; and their origin in a vote, or votes, of ostracism held in the mid-480s B.C.E. seems likely.

Some features, however, are unusual. Ostraka for Themistokles are surprisingly rare among the most recent examples, especially when compared to the large number with his name found in other early Agora deposits. By contrast, sherds with the names of Athenians who are otherwise poorly known, either from literary sources or among previously-published ostraka, are slightly more common. Also noteworthy is an ostrakon incised with the word Limos ("Hunger" or "Famine"). At least six ballots with this word, interpreted as a personification and not a real name, are already known from the Kerameikos and are dated to the 470s. The Agora example not only adds to the total number of ostraka against Limos; if it is correctly dated to the 480s, it also suggests that votes against abstract entities, as opposed to real citizens, was a practice not confined to a specific voter, year, or historical context.

New Inscribed Clamps and Dowels from the Athenian Propylaia
Robert K. Pitt, College Year in Athens

Recent restoration work on the Athenian Propylaia, supervised by Tasos Tanoulas (Acropolis Restoration Service), has brought to light a large number of ancient iron clamps and dowels that had joined the blocks of the Central Hall of the building during its construction in the 430s B.C.E. A thorough investigation of these metal connectors by the author has revealed that 56 of them—of varying size and position in the building—were inscribed with the abbreviation ΑΘΕ. This paper

presents the results of the investigation and asks what the purpose of such inscriptions could have been. They may be a simple form of claiming ownership of the iron elements by Athena, Athens, or the Athenians; but the difficulty of inscribing on such a hard surface, and the importance of the quality of the metal to the structural integrity of the marble members of the Propylaia may point to the inscriptions playing a role in the checking and approval of these crucial metal elements by the building commission or architect in charge of the project, ensuring that the clamps and dowels were marked as being of sufficient quality. This body of evidence for the quality control of materials used on a building project can be paralleled in the accounts and contracts of other public construction projects around the Greek world, although the large number of the Propylaia inscriptions is unique.

From Pelekos to Kilroy: The Greek Graffiti of Abu Simbel and the Creation of Hellenic Identity in Egypt
David M. Wheeler, University of California, Berkeley

Since they were first published by Lepsius in 1844, the Greek graffiti of Abu Simbel have held a conspicuously prestigious place among the Greek inscriptions of Egypt. A number of studies have been published over the years which elucidate the historical significance of the Archaic graffiti and parse out their letter forms and dialects, though it was not until 1957 that Bernard and Masson published a complete corpus of Greek inscriptions, which corrected the mistakes made by Lepsius and included the first unabridged publication of the graffiti from the Hellenistic period. Since then, relatively few studies have taken up this assemblage, and those that have been undertaken have generally focused on the Archaic material. As a result, the corpus is rarely considered in its entirety (the Archaic and Ptolemaic Greek graffiti, as well as the Semitic and Carian inscriptions), nor has this corpus properly been situated in and considered as a result of its Nubian and Egyptian environs.

The aim of this talk is to take the graffiti of Abu Simbel as a case study to explore how scrutinizing the act of creating graffiti can inform our understanding of the Greek diaspora in Egypt. In particular, I read this corpus through scholarship on modern graffiti to analyze the vital role played by location and visibility, and the social impact graffiti has on the marginalized communities that create them. This vantage point emphasizes how graffiti like those found at Abu Simbel are not passive acts of memorialization, but active performances establishing Greek presence in a foreign land.

In the case of the corpus left at Abu Simbel, we find that the graffiti is situated at the most visible point in the landscape and intentionally invites interaction. First left by the foreign mercenaries who participated in Psammetichus II's Nubian campaign, there is a clear sense of graffiti as conquest, mirroring and drawing on the motivations of the campaign and the temple itself. But much like the famous 'Kilroy was here' graffito of World War II, the graffiti moves beyond an act of conquest and makes an alien landscape accessible and welcoming through the process of memorialized individual and community presence in a place and time. It fostered a sense of legitimacy and historicized Greek presence in a way that was

later canonized by the Ptolemaic additions, which both confirm and enhance the cultural significance of this site for the Greek-speaking community.

Possible New Epigraphic Evidence for a Jewish Synagogue at Augusta Emerita (Mérida, Spain) in the First Century C.E.

Jonathan Edmondson, York University, Toronto

In 2006–2007 remains of numerous incineration burials dating to the later 1st century C.E. were discovered in excavations near the Roman circus in Mérida, the Roman colony of Augusta Emerita, in a large Roman burial-ground that stretched out along the road running from the Lusitanian capital to Metellinum (Medellín) and eventually Toletum (Toledo). In these excavations, a more or less intact white marble plaque was discovered in a late-1st-century tomb, reused as a cover for the grave-goods. Its text reveals that it had originally been set up as an epitaph by a freedman, Vicarius, to commemorate his patron.

The name of this patron—DEMETRIVS AZZANITES—poses problems of interpretation. This paper explores several possible ways to construe it: (1) that he was a man with a single name Demetrius, whose ethnic origin was outlined in the second line, with "Azzanites" an erroneous form of "Aezanites", thus attesting an immigrant from Aezanoi in Phrygia; (2) that "Demetrius" is here being used as a gentilicium (cf. M. Demetrius Epictetus, mil(es) cla(ssis) pr(aetoriae) Rav(ennatis): *CIL* IX 5749, Ricina in Picenum), while "Azzanites" is a cognomen, which, though rare, is attested as the name of the author of a 4th-century *C.E.* medical treatise cited in the Michigan Medical Codex (*P. Mich.* 758). Although both explanations are possible, a third may be more plausible: (3) according to Epiphanius of (Cyprian) Salamis (*Panarion* 1.2.30.11.4), an "azanites" was an assistant to the archisynagogus in a Jewish synagogue. Thus Demetrius may have played just such a role in the synagogue at Emerita.

The paper concludes by reviewing the evidence for a Jewish community at Emerita, especially the recently published epitaph of Annianus Peregrinus, *onorificus duarum synagoge (!) exarchon*, dated to the late 4th century. If the proposed interpretation of the new plaque is correct, it would provide the earliest evidence yet known for a Jewish community at Emerita, where the mid-2nd-century funerary altar (*CIL* II 515) of Iustinus Menandri f. from Flavia Neapolis (Nablus) in Palestine hitherto provides the earliest possible testimony. The paper concludes with some reflections on how this new find affects our understanding of the Jewish presence in Rome's Hispanic provinces.

SESSION 2I
Local Elites and Honorary Practices in the Roman World

CHAIR: To be announced

The Honorary Practice in Hellenistic and Imperial Sicily
Rebecca Henzel, Freie Universitaet Berlin

Honorary statues served as the highest honor one could receive in the Graeco-Roman world due to their commemorative character. Statues and their display in urban contexts have attracted attention over the last decades for several cities in Greece and Asia minor (e.g., Pergamum, Aphrodisias, Athens). Nevertheless, systematic research covering all components (statue, statue base with or without inscription, fundament) has never been carried out. In Sicily, the honorary practice, as well as the Hellenistic and Imperial period in general, was neglected in scholarship due to its fragmentary state of preservation, along with the negative viewpoint taken by ancient literary sources. The aim of this paper is to discuss the honorary practice in Sicily from the Hellenistic to the Imperial period on the basis of a systematic examination of epigraphic and archaeological evidence. The display of honorary statues in public spaces and their historic/socio-cultural context can be reconstructed now based on research conducted between 2015 and 2017 that examined known statuary fragments and statue bases (from museums and in situ), and studied the upper surfaces of statue bases and their find-spots throughout Sicily.

The main questions are: who was honored by whom, where were the statues set up, which material was used for statues and statue bases, how did the statues and statue bases look? Moreover, when did the phenomenon of honoring persons with statues in public space become popular? Furthermore, can developments or changes from the Hellenistic to the Imperial period be observed, and can the results from Sicily be compared to other regions of the Mediterranean?

Some general results can be listed here briefly. I argue that the honorary practice in Sicily increased in number only in the second century B.C.E., which coincides with the occurrence of an elite in general. Little evidence of statue bases in Sicily is known from earlier periods. The latest datatable statue display, however, was set up in the fifth century C.E. As known from other regions, the statues were set up in an architectural frame (e.g., stairs, porticus, columns), for which fundaments in situ provide information. In contrast to the given standard patterns, I show that in Sicily exist also regional/local characteristics, e.g., the used material for statues.

Monumental Themes: Local Perspectives on the Arch of the Sergii
Charlotte L. Forstall, Indiana University, Bloomington

The Arch of the Sergii (ca. late-first century B.C.E.) in Pula, Croatia is one of the earliest extant examples of a Roman arch monument. Standing amongst the well-preserved Roman remains of ancient Pula, a port city on the Adriatic, the arch is festooned with sculptured garlands and bucrania, piles of Roman booty,

war chariots, and winged victories. The inscriptions reveal to whom the arch was dedicated, three members of the gens Sergius, an elite local family, and by whom it was built, Salvia Postuma, a wife of one of the honorees. Often mentioned, but rarely studied, the Arch of the Sergii provides an opportunity to reassess the nature of the provincial arch monument's relationship to the city of Rome, empire, and Roman identity.

The Roman monumental arch is habitually examined in the contexts of metropolitan Rome, imperial agendas, and triumphal rhetoric. This results in a problematic model when assessing the message of arch monuments outside of Rome, particularly in ascertaining a monument's efficacy for patronage, message, and audience at a local level. My paper addresses this issue: Does the Arch of the Sergii demonstrate a rhetorical visual program for the residents of Pula? If so, how and to what end?

In this paper, I refigure the reading of the monument to include both the cosmopolitan and the provincial. The monument's topographical siting, sculpture, and inscription provide political capital to the Sergius family. The arch's imagery and inscription emphasize the virtus and the deeds of the Sergii using Roman visual vocabulary connected to military victory, but in a fashion that had local resonance. The city and citizens of Pula thus benefited from this adornment and from their connection to the Sergius family, and by doing so in a manner connected to Rome and the emperor, communicates the city's cultural and political standing to a diverse local, regional, and general Mediterranean audience. My study accounts for the Arch of the Sergii's multiple intended audiences. The manner and mode of self-expression with clear links to metropolitan Roman precedents had a dual purpose. The Arch of the Sergii not only proclaimed to the citizens of Pula that they belonged fully to the Roman world, but it also communicated this message of power, prestige, and authority to the many visitors to the port city.

Portraits of Fame or Bodies of Shame? Charioteer Statues, Public Performance, and Social Infamy in Imperial Rome

Sinclair Bell, Northern Illinois University, *Jean-Charles Balty*, Université Paris-Sorbonne (Paris IV), and *Frederik Grosser*, Albert-Ludwigs-Universität, Freiburg

Because of their highly public personas but lowly origins and status, Roman charioteers were frequently the subject of bitter invective from elite authors. These authors' outrage was magnified by many charioteers' status as mere slaves. Because of their profession as public performers and the social infamy connected to the public competition for money, charioteers' legal status has also been the subject of much scholarly discussion. According to Horsmann, the only exception to the stigma of infamia for public performers applied to Greek athletes (*Die Wagenlenker der römischen Kaiserzeit* [Stuttgart 1998] esp. 46f., 55f.). However, Wacke and Gamauf have recently concluded on the basis of numerous passages in the Digest that participation in the races was *virtutis causa* and thus that charioteers were not subject to any legal restrictions (R. Gamauf, "Pro virtute certamen: Zur Bedeutung des Sports und von Wettkämpfen im klassischen römischen Recht," in K. Harter-Uibopuu and T. Kruse (eds.), *Sport und Recht in der Antike* [Vienna 2014] 275–308). Wacke and Gamauf's conclusions mark a significant reversal of the longstanding

communis opinio, and open the door to analyzing a corpus of evidence related to charioteers that has largely been overlooked: portrait dedications.

Literary and epigraphic sources indicate that a significant number of honorific portraits were erected by and for charioteers during the Roman imperial period, some of which were commissioned in expensive materials and sat in highly visible public spaces. Unfortunately, these portraits have largely been studied piecemeal and thus have yet to be integrated into the larger artistic and social histories of the Roman empire. This paper presents the conclusions of the first comprehensive catalogue and analysis of the extant corpus of monuments, including portrait heads, busts, and statuary. It also includes comparison with images in other media (graffiti, grave altars, and sarcophagi) and draws upon the literary and epigraphic sources to offer the fullest reconstruction possible.

As we argue, the study of these works as a collective not only yields new insights into their source materials, fine craftsmanship, and public contexts of display, but also informs our understanding of the social and legal status of their dedicants, who occupied positions at once of social glory and disrepute. Only by turning to charioteers' own monuments, together with our new understanding of their legal status, can we reconstruct some measure of their lived reality as historical actors as well as their self-understanding as a group.

A Recarved Roman Portrait Head of a Woman in the Art Institute of Chicago

Katharine A. Raff, Art Institute of Chicago

Recent scholarship on Roman portraiture has demonstrated that marble likenesses of both imperial and private subjects were recarved with frequency in antiquity and for a variety of different reasons. Since marble was a costly commodity, recarving was often undertaken due to economic concerns, as commissioning a new work could be financially prohibitive. It was also carried out for political purposes, including the practice of *damnatio memoriae*. In other instances, portraits might have been reworked to varying degrees based on aesthetic motivations, as for example to update the original subject's appearance or to make repairs to a damaged likeness.

In this paper, I examine a recarved Roman portrait head of a woman in the collection of the Art Institute of Chicago, the original phase of which is dated to 117/30 C.E. This portrait, which has been in the museum's collection since 1962, recently underwent comprehensive art historical study and technical examination in preparation for its inclusion in a major digital catalogue of the Art Institute's Roman collection, which was published in early 2017. Carved from Carrara marble, this slightly over life-size likeness of an unidentified female preserves aspects of its original form on the front side, namely in its idealized facial features, elegant coiffure, and lunate diadem. The back, however, exhibits telltale signs of recarving, including a heavily keyed surface—essentially obliterating the majority of the original hairstyle—and the addition of a square cavity at the center to accommodate a large iron cramp, most likely used to affix a later attachment into place. In this way, the Chicago portrait follows a trend observed in other reworked likenesses of private women dated to the first and second centuries C.E., in which the hairstyle was clearly altered but the face was generally left untouched.

Acknowledging that the portrait's current state of preservation reflects two different phases of carving during antiquity, I explore the evidence of its original, complete hairstyle, as well as the possible forms of the later, now-missing attachment. I argue that this attachment likely took the form of either a separately carved hairstyle or an attribute, such as a veil, which was added within several decades of the portrait's initial carving. While the circumstances behind the portrait's recarving remain unclear, the alterations were undoubtedly part of an economical effort to maintain an accurate and appropriately cultivated image of the subject.

Encounters with Benefactors in Roman Tarraco
Rachel Meyers, Iowa State University

Roman towns were full of portrait statues, and people encountered them on a daily basis as they moved through the city. This paper focuses on the portrait statues set up in honor of civic benefactors in Roman Tarraco during the imperial period. By examining the appearance of the statues themselves, the dedicatory texts inscribed on the statue bases, and their original display contexts, this paper aims to reveal the impact of the honorary statues both on the visual cityscape of Tarraco and on its residents. Through reconstructing the locations of statues in the town in relation to other structures, it is possible to imagine how ancient viewers would have encountered them in their regular activities. Certain examples of civic munificence—such as a venue for entertainment—might have been highly appreciated by members of the town, but they might have also incited competition among the wealthy residents to out-do one another. Thus, the statues and their dedicatory inscriptions, which commemorated these gifts and donations, might have been endowed with the agency to drive others to engage in civic munificence with the hope of being recognized publicly for their contributions.

Taking into account the ideas of urban morphology, this paper considers the layout of Tarraco, the types of materials used, and the functions of structures and open spaces in creating the display contexts for honorary statues. Furthermore, the statue types, pose, and clothing are also assessed since, as numerous studies have shown, these factors were essential components in visual representation and self-presentation.

SESSION 2J
Western Greece

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

The Metaponto Archaeological Project: New Research in the Chora of a Greek City
Spencer Pope, McMaster University, and *Sveva Savelli*, Queen's University

The chora of the ancient Greek colony of Metaponto is the focus of an international survey project operating under the auspices of the Italian Ministry of Culture and the Superintendency of Basilicata, Italy, continuing the work undertaken

by the Institute of Classical Archaeology (ICA) at the University of Texas at Austin. The Greek city, founded near the end of the seventh century B.C.E. by Achaeans, grew to occupy a nearly 400 km² territory on the Ionian coast between the Bradano and Cavone Rivers. The area has been the subject of intense study through archaeological field survey and excavations that have revealed extensive occupation of the ancient countryside including villages, farmsteads, sanctuaries, and necropoleis.

The present project, led by McMaster University, includes new field survey in the area between the Basento and Cavone Rivers within a transect extending approximately 30 km² and the study of the survey material collected across a nearly twenty-year period by the ICA. This area is particularly significant as portions of it were occupied by the local Enotrian population and reveal patterns of early Greek contact with the indigenous population. Sites individuated within the transect help define the nature of interaction and specify diachronic spheres of influence.

A multidisciplinary approach that encompasses material analysis, geomorphology, and GIS technology is applied in order to reconstruct settlement patterns in a growing dataset. This expands knowledge of the chora providing a rather complete picture of use of territory and the process of land management from the Early Archaic to the Medieval period.

Panathenaic Amphoras in the West: The Case of the Temple of Athena in Syracuse
Giulio Amara, Scuola Normale Superiore, Pisa (Italy)

This paper investigates a significant deposit of Panathenaic amphoras from the temple of Athena in Syracuse. Excavations were carried out by Paolo Orsi from 1910 to 1917 and large amount of Archaic Greek pottery was found in two different areas. The Panathenaic prize amphoras were discovered into the so-called "Deinomenid backfill," an archaeological layer sealed during the Deinomenid Tyranny in conjunction with the building of the temple of Athena. As for the Perserschutt on the Athenian Acropolis, the archaeological material from the backfill constitutes the terminus post quem for the building of the surviving temple of Athena. This paper deals with unpublished black-figure Panathenaic and Panathenaic-shaped amphoras from this archaeological context and sheds new light on the distribution and meaning of Panathenaic amphoras in the West and in the Western Greek sanctuaries. While remaining a touchstone, the study on prize amphoras by Martin Bentz (*Panathenäische Preisamphoren. Eine athenische Vasengattung und ihre Funktion vom 6.-4. Jhs. v. Chr. Antike Kunst, Beiheft 18 [1998]) does not systematically investigate the archaeological evidence from the temple of Athena in Syracuse. This paper aims to bridge this gap by examining the unpublished ceramic materials in a contextual and cultural perspective. The investigation focuses on the following aspects: 1) characteristics and chronology of the Panathenaic deposit; 2) attribution of some fragments to Attic workshops and painters; 3) meaning of Panathenaic amphoras within the archaic urban sanctuary of Syracuse and in the wider context of Western Greek sanctuaries; and 4) chronology of the temple of Athena.

Excavating a Hellenistic House at Morgantina (Sicily): Report on Recent Excavations by the Contrada Agnese Project (2016-2017)
Alex Walthall, University of Texas at Austin

This paper presents the results of the fourth and fifth seasons 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, CAP excavations have focused on exposing the remains of a Hellenistic house, located at the western limits of the ancient city. Excavations in 2016 and 2017 revealed the full extent of the building (c. 20m x 20m) and nearly two dozen rooms within, encompassing multiple phases of occupation.

First, I discuss recent discoveries from 2016 and 2017, paying attention to materials that help to illuminate the nature of the space and the types of activities which took place therein. For instance, the discovery of two rotary millstones and a large number of storage vessels (pithoi) within the building may be evidence for the processing of agricultural goods at a level above household consumption. These finds are discussed in light of the variety of paleoenvironmental evidence (i.e., macrobotanical, faunal, pollen) collected and analyzed from within the house in order to establish a more detailed picture of diet and agricultural activity. Numismatic evidence, including several coin hoards found within the building, suggests a fair degree of economic integration and routine participation in market exchange for the occupants. Coin finds have also helped to establish an absolute chronology for the building's multiple phases of occupation, which appear to be confined to a brief period between 275 and 200 B.C.E.

Second, I situate the house—its construction, use, and abandonment—against the dual backdrops of domestic architecture and urban development at Morgantina during the third and second centuries B.C.E. With respect to the former, I consider the CAP house in light of the better-known peristyle houses that flanked the city's agora and discuss both how this building fits within the current framework of domestic architecture at Morgantina and how it offers new vantage points for future research. Here, I briefly review the evidence for extensive architectural renovations within the building and consider whether such modifications were related to significant transformation in the nature and use of the space. With respect to urban development, I address how the CAP excavations have produced valuable evidence to confirm both the rapid expansion of the urban center in the middle decades of the third century and its equally swift contraction in the decades following the Roman siege of 211 B.C.E.

Terracotta Altars of Morgantina: A Contextual Approach
Andrew Tharler, Bryn Mawr College

Terracotta altars, sometimes termed arulae, are widely attested at sites across the Hellenistic world, from Italy to the Black Sea region. Despite their ubiquity, Hellenistic arulae remain largely unstudied. They are occasionally acknowledged in excavation reports, accompanied by descriptions of their decorative elements and basic measurements. However, further discussion of context, form, and use is either absent or highly speculative, no synthetic treatment of this material has

been published, and their functional designation as altars remains unchallenged. As a result, this substantial body of material culture has not been fully considered in research on Greek cult practice during the Hellenistic period. This paper offers a more critical assessment of these objects by examining terraacotta arulae from Hellenistic Sicily, specifically those from the site of Morgantina, where more than 200 arulae have been discovered. Although they have not been published or systematically studied, information about their provenance is recorded in the original excavation notebooks. A contextual analysis of this material reveals patterning that reflects trends of use, deposition, and post-depositional processes at the site. Overall, the predominantly sacred character of the arulae seems to be confirmed by their discovery in high concentrations within the North Sanctuary, Morgantina's largest cult center. However, variations in the distribution of altars within and between sanctuaries may indicate ritual differentiations, though particular cultic associations remain uncertain. Furthermore, arulae are actually more prevalent in houses than in sanctuaries, and occur most frequently in homes further from the agora. And while many public and administrative buildings in the agora itself also contained at least one arula, the presence of this material can be more convincingly explained by post-depositional processes than patterns of use. A contextual approach to terracotta arulae, taking into account spatial distribution, depositional circumstances, and formation processes, offers a considered evaluation of the behaviors and practices associated with these often overlooked objects and facilitates a more flexible understanding of the versatile role of altars within the Greek city.

Flying over the Temples

Maurizio Forte, Duke University, and *Everett Newton*, Duke University

Duke University, in collaboration with the Park of the Valley of the Temples (Agrigento, Italy), started in 2017 a new project of landscape aerial mapping concerning the archaeological and geomorphological interpretation of the Hellenistic and Roman city of Akragas. The survey was operated by a RTK drone (Ebee-plus) equipped with RGB, infrared and Red Edge cameras. In the 2017 season the drone collected over 7,000 photos with a resolution of 2-3 cm/per pixel, mainly focused on the urban city grid of Akragas. The post-processing analysis was aimed at the creation of a 3D high resolution map of the site and at a multispectral classification of archaeological and geomorphological features.

The preliminary results uncover new insights about the Hellenistic and Roman city plan and the recent discovery of the theater.

SESSION 2K: Workshop
Digital Preservation: Tools and Strategies for Preserving
Archaeological Data for Future Generations

MODERATOR: *Kelsey George*, University of California, Santa Barbara

Issues of sustainable digital preservation need to be more uniformly addressed within the archaeological community. Enthusiasm for integrating new digital

recording methods into archaeological practice is high, but this rarely includes concrete plans for to how to manage and store these files over the long-term. As cultural heritage and academic institutions begin to develop or update their digital preservation best practices, how can we contribute to the conversation? This workshop will address combatting issues implementing digital preservation at an institutional level, as well as digital preservation issues that arise with digitized and born-digital archaeological objects, records, and data, regardless of the size or length of the project. Participants will have the opportunity to break out into small groups to workshop solutions they are experiencing in preserving their research. Demonstrations of some digital preservation and version control tools will be given. Participants should bring laptops.

PANELISTS: *Theresa Huntsman*, Sardis Expedition, Harvard Art Museums, and *Eric Kansa*, Open Context

SESSION 2L
Poster Session

The Maritime Transport of Bronze Sculptures as Scrap in the Ancient Mediterranean
Katerina Velentza, University of Southampton

This poster presents evidence for the maritime transport of bronze sculptures as scrap in the Mediterranean Sea during Hellenistic and Roman times. This research is part of the author's on-going project studying the transport of sculptures in the ancient Mediterranean through the analysis of data from the underwater archaeological record.

From the 83 examples of sculptures found in Mediterranean underwater contexts and recorded in the database of the previously mentioned research project, 52 include bronze sculptures and more than half of them have been retrieved in fragmentary condition. Even though it is hard to prove with certainty which of these sculptures were transported fragmented on purpose and which were dismantled during the wrecking of the ships carrying them, there are five case studies with clear evidence for the maritime transport of fragmentary bronze sculptural material as scrap intended to be recycled. These are the shipwrecks of Favaritx in Spain, Brindisi in Italy, Ayia Galini in Greece, as well as Caesarea and Megadim in Israel. All of these shipwrecks have been at least partially excavated but they have not been researched comparatively, or thoroughly interpreted in the earlier scholarship. Despite the wide geographical distribution of these case studies and their chronological range from Hellenistic to late Roman times, the data from underwater contexts show some uniformity and give interesting insights into this maritime activity. In all of these shipwrecks, bronze sculptural material of different dates was carried in merchant ships and was transported in fragments along with a variety of other metal objects.

The above case studies have been researched by the author through: published books, articles and reports; personal visits to museums and relevant archaeological services; and an examination and corresponding study of specific artifacts. As this poster presents, through the comparative study of the preserved underwater material record of the previously mentioned shipwrecks, it is possible to get an understanding of: 1. the type and the date of the transported sculptures, 2. the naval and structural characteristics of the ships carrying them, 3. the packing and the deposition of the sculptural fragments on the ship, 4. the other artifacts transported together with the sculptures and 5. the geographical area where the ships were moving. Therefore, it is possible to comprehend better than before the conditions of maritime transport of bronze sculptures as scrap metal in the ancient Mediterranean world.

Using GIS to Explore Legacy Spatial Data at Isthmia
Jon M. Frey, Michigan State University, and *Louise M. Steele*, Michigan State University

In studies of material culture, the location of an artifact or monument is just as important as its identification. Thus, visual representations of spatial relationships are a common feature of archaeological documentation. While traditionally, hand-drawn maps and plans have served as the most common format, more recently, archaeologists have benefitted from the development of Geographic Information Systems (GIS) software to create more robust and scalable representations of their areas of study. With GIS, many different forms of information can be brought together and analyzed in a variety of ways. At the same time though, these more dynamic maps and plans rely on data in electronic form, which has meant that archaeological projects that collect data digitally in the field have had an easier time taking advantage of these new analytic techniques.

For older projects at which maps and plans on paper are a much more common form of archaeological documentation, the use of GIS technology may be more complicated, but no less informative. This poster reports on the ongoing effort of the Ohio State University Excavations at Isthmia to build a GIS platform using a variety of paper-based maps and plans from the past half-century of investigation at the site. Once digitized and anchored to real-world coordinates, the "legacy spatial data" contained in hundreds of rough sketches from field journals are being used to plot out the locations of artifacts and monuments throughout the larger site. As an ongoing study in the area of the Byzantine fortification already shows, the visualization of artifact scatters is beginning to reveal patterns of use not recognized in the isolated settings of the original excavations.

Πεδίον Λαρισίον: Mapping Settlement Patterns on the Ierapetra Isthmus
Catharine Judson, University of North Carolina-Chapel Hill, and *Andrew Cabaniss*, University of Michigan

Over a century of archaeological investigation in the Ierapetra Isthmus on Crete has resulted in the densest concentration of known sites in Greece. Several

intensive and extensive survey projects have explored the northern half of the Isthmus, in particular, complemented by a large number of systematic and rescue excavations carried out by both the Greek Ephoreia and by various foreign archaeological institutes.

In this poster, the authors present the preliminary results of a GIS mapping project that combines the disparate published archaeological data from the Isthmus region. This project provides a holistic view of the region and its occupation patterns over time, as well as resolving issues of site comparability between different archaeological projects, especially with regards to survey methodology. The particular importance of this project is that it provides a better single tool for contextualizing individual site histories within the larger region, rather than within the several fragmented micro-regions created by different archaeological projects. It also provides a better way to detect and highlight issues and lacunae in the archaeological record of the region that are often obscured by both the publication record and by a multiplicity of discipline-dependent historical narratives.

The ultimate aim of the project is to contain the entire history of the region between the Neolithic and Ottoman periods. For the moment, however, the authors' primary research focus is on the occupation and use patterns of the Isthmus plain and surrounding hills between the Late Minoan IIIC and Hellenistic periods (ca.1200-100 B.C.E.). These centuries involve several major phases of settlement shifts and aggregations. In particular, the period between the late seventh and early third centuries B.C.E. remains very poorly understood on Crete because of a paucity of excavated sites, and an accompanying lack of visibility in survey because of limited knowledge of the relevant ceramic sequences. Scholars following historical (i.e., textually based) narratives have favored interpreting this lack of evidence as settlement agglomeration accompanying the formation of the polis, while the authors maintain that mobility and site longevity, coupled with the problems of ceramic recognition mentioned above, also affect the apparent dearth of evidence for small settlements and rural sites from the Archaic through early Hellenistic periods. The goal of this project is therefore to produce a more nuanced and data-rich tool for understanding the human landscape of the Isthmus that will inform future question-oriented fieldwork in the region.

From Words To Pictures: Visualizing The Archaeological Journals Of Chaco Canyon
Jenny Kenyon, Penn State University

Many archaeological sites have been excavated long ago, leaving researchers only journal entries and sketches to try decipher these important cultural heritage sites. Pueblo Bonito, Room 33 in Chaco Canyon is one such site. Dating from 800-1100 C.E., it contained the ancestral remains of 14 individuals of a matrilineal line and the largest cache of artifacts relating to the Pueblo culture—over 30,000 items—many indicating long-distance trade. As photography was not possible in the chamber, which had no source of light, researchers have theorized about the relationship between its artifacts and the remains based on drawings and field notes. However, no one has attempted to recreate this complex, multilayered environment. Using George Pepper's archaeology journals and sketches from 1896, a method of plotting artifacts, room structure and human remains within the 3D

environment of Vectorworks was created in consultation with Dr. Stephen Plog and Dr. Douglas J. Kennett. A 3D model of the burial chamber and its artifacts resulted from using CAD-based technology to accurately place many of the artifacts and the burials on all axes. The 3D wire-frame visualization was then used to determine the optimal viewpoint to illustrate the complex layering of artifact, remains, and chamber. Once selected, this view of the chamber was printed as a 2D image and then hand-drawn on vellum with graphite. Artifact and adjacent chamber photographs were used to replicate masonry, pottery, and construction materials. This image was then scanned, colorized, and numbered to correspond to Pepper's entries and to accompany journal publication about the burial site with recent photographs of the ceramic vessels now curated in a museum. While journal illustration was the original goal of the project, by creating the burial chamber in 3D, scientists are able to explore the burial crypt to examine the significance of the interments, the artifact/crania relationships, and the sociopolitical ramifications of the crypt. By creating a visual representation of this lost crypt, a method for the virtual creation of lost heritage sites now exists. By utilizing 3D burial chamber reconstructions, even on sites without archaeological photographs, scientists may further understand cultural relationships that could not be explained through written word alone.

Identifying Animal Mobility in Chalcolithic Portugal: Isotopic Analyses of Cattle from the Sites of Zambujal and Leceia

Lizzie Wright, University of Sheffield, *Anna J. Waterman*, Mount Mercy University, *Michael Kunst*, German Archaeological Institute, Madrid, Spain, *João Luís Cardoso*, Centre for Archaeological Studies, Oeiras Municipal Council, Portugal, *Robert H. Tykot*, University of South Florida, and *David W. Peate*, University of Iowa

This poster outlines the results of new strontium isotopic analyses from cattle recovered from the Chalcolithic fortified settlement sites of Zambujal and Leceia (Estremadura). The archaeological record suggests the Portuguese Chalcolithic (ca. 3500–2000 B.C.E.) was a time of significant social and economic change with evidence of the expansion of complex settlements and exchange networks. Domesticated animals played an important role in these economies, and it is assumed that they migrated with, and were traded by, humans as part of these new networks. However, direct evidence of these exchanges is still limited in this region. Stable and radiogenic isotope analysis has the potential to expand our knowledge of animal husbandry practices, such as foddering and mobility, by providing chemical evidence of husbandry activities. In particular, examining $^{87}Sr/^{86}Sr$ ratios in tooth enamel has become a established method for identifying nonlocal humans and animals in settlements and burials. Results from this study indicate that the cattle population at Leceia included more non-local animals than at Zambujal, suggesting variations in settlement economies across relatively short distances in this region. These results have important implications for our understanding of animal management at Portuguese Chalcolithic sites, and the involvement of animals in the emerging economies of the time.

Technical Choices Always Matter
Marisol Madrid i Fernandez, Universitat de Barcelona, *Alejandro G. Sinner*, University of Victoria, and *Sandra Grujin*, University of Victoria

Archaeological classifications of Black Gloss pottery in terms of provenance and technology are usually based on the macroscopic analysis of the gloss and the paste. As research progresses, new disciplines, such as archaeometry, are being integrated into these types of studies, improving their analysis and classification.

Archaeometry applies well-established methods and techniques in order to generate the necessary data to address archaeological research problems. Archaeometric routine problems aim to identify meaningful ceramic groups and provenance, and aspects related to ceramic manufacture. For the latter, consumption centers are ideal for addressing intended performance characteristics and the interaction of vessels with things and people in the behavioral chain of use, including technical changes.

Following the above, we present the archaeometric study of 52 Black Gloss pottery sherds from the consumption sites of ancient Ilduro and Iluro in Northeastern Spain (Cabrera de Mar and Mataró). Sampling for the study has been organized according to a multi-phase sampling. In the first phase, every individual sherd was analysed by applying the same analytical techniques, chemical characterization by means of X-ray fluorescence (XRF) and mineralogical characterisation by means of X-ray diffraction (XRD). In the next phase, a subsample of individual sherds were taken from those included in the first phase, and were microstructurally characterized by means of Scanning Electron Microscopy (SEM); thanks to which, the sintering stage of the matrix and the gloss were determined.

This system helped us to identify four different meaningful ceramic groups, all of them related to the Campanian area in Italy. Starting from this point, in this poster we focus on the technical aspects related to ceramic manufacture. Differences among groups but also variability within a single meaningful ceramic group—arising from firing conditions or from the application of the gloss—are highlighted. This methodology allows us to understand that the criteria used by archaeologists while classifying this type of pottery are closely related to the technical choices made by the potters, and that technique can only be detected—and therefore interpreted—by means of archaeometry.

An Execution in Medieval Sicily
Luca Sineo, Università degli Studi di Palermo, *Roberto Miccichè*, University of South Florida, *Pietro Valenti*, Università degli Studi di Palermo, and *Giuseppe Carotenuto*, Università degli Studi di Palermo

Bioarchaeological evidence of interpersonal violence provides a more comprehensive picture about social interactions in ancient societies and is particularly relevant when associated with a historical reconstruction connected to a period of social transformation and crisis. Here we present the first documented case of a deviant burial in Sicily. The inhumation was discovered in 2013 within the medieval settlement that arose in close proximity to the ruins of the Roman villa at Piazza Armerina. The burial was identified outside a proper cemetery space and

has been dated between the beginning and the middle of the 11th century C.E., at the end of the Islamic rule in Sicily.

The skeleton was lying in prone position in a shallow pit. The feet were very close together, probably bound when the burial took place. The remains showed an excellent state of preservation and the skeleton was complete in all its anatomical aspects. It was possible to attribute to the individual a male sex and an age of death between 30 and 40 years.

The paleopathological analysis allowed identification of the probable cause of death. The sternum bore at least six clear signs of stab wounds, which occurred close to the time of death for the individual. Surprisingly, the wounds were located on the posterior surface of the sternum, pointing to multiple stab attacks from the back of the victim that fully pierced the thorax and stopped at the sternum. An accurate analysis of all the skeletal elements that compose the thoracic cage (scapulae, ribs and vertebrae) did not show any trauma connected to the sternum-related action. This evidence allows us to infer that the homicidal action occurred—not during a chaotic fight—but in a more controlled situation, as with an execution.

To better clarify the possible dynamics associated with the death of the individual, the adoption and use of 3D medical imaging techniques was crucial. A CT scan of the sternum provided information about the nature of the weapon and its penetration angles. The creation of a 3D virtual model of the complete chest cage has allowed us to identify the entry point of the blade and its range of action.

Our results clearly point to a socially marginal context, which is further confirmed by the cause of death of the individual as a consequence of a probable execution.

Settlement Patterns in Albania from the Iron Age Through Greek and Roman Colonization and Integration (1100 B.C.E.–395 C.E.)
Erina Baci, Mississippi State University

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 traditional way of life and sociopolitical organization of the Illyrians were undoubtedly altered. In this poster, I present the preliminary results of my thesis research, the goal of which is to understand better how interactions with other groups of people influenced Illyrian settlement patterns. Specifically, how did Greek colonization, followed by Roman incorporation, affect Illyrian settlement patterns in Albania? Due to its peripheral location in the Mediterranean, Albania provides a unique case study for investigating colonization, integration, and interactions between different cultures.

The sites included in the analysis range from the year 1100 B.C.E. to 395 C.E. This range was selected specifically to show the change in sites over time following Greek colonization and Roman integration. Encompassed by this range are key dates, such as 627 B.C.E., the foundation of the first colony in the area that 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 semi-peripheral "cores" that act to draw people to them, like the case of towns during the industrial revolution in Europe. The data

for the analysis were collected during the summer of 2017 via archival research in Albania, and compiled into a gazetteer, which was imported into ArcGIS to allow visual display of the sites.

This study uses a regional, multi-scalar approach in combination with Geographic Information Systems (GIS) to analyze how the locations of sites changed over time. Cluster analysis is used to analyze the relationships between contemporaneous sites in the designated research area. In cluster analysis, the relationship between sites and these influences, or lack thereof, appears in three patterns: random, regular, or nucleated. Site location can be influenced by a number of factors: social, economic, and environmental. In this study, I focus mainly 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 overall settlement pattern. Following the cluster analysis, three patterns stand out within the data set: the lack of nucleation before colonization and incorporation, nucleation around colonies or "cores," and linear patterns around roads or trade networks.

Formation and Transformation of a City and its Road System. New Evidence from the Gabii Project 2017 Excavation in Area J
Arianna Zapelloni Pavia, University of Michigan

The study of the road system carried out by the Gabii Project has proved to be decisive for the understanding of Italic city formation and its urban development into the Republican and Imperial time. During the 2017 field season, a new area of study, designated Area J, has begun to provide not only new information on the construction and earlier phases of the two main thoroughfares of Gabii, but also new data on the abandonment of this crucial site of ancient Latium.

Situated on the southeast side of the intersection between the main thoroughfare of the city, the Via Gabina, and the Via Prenestina, Area J occupies a central spot within the city of Gabii. The excavation has revealed a multi-stratified sequence dating from the Early Republican to the Early Medieval periods.

The Early Republican phase is characterized by the presence of a road consisting of a deep rock-cut surface (tagliata) that retraces that course of the later Via Gabina and probably dates to the fourth century B.C.E. Between the third century B.C.E. and the first century B.C.E., three more roads are created on top of the tagliata, and a tufo slab floor is laid out to the south.

During the Imperial and Late Antique periods, the area underwent a spatial and functional reorganization. The tufo slab floor is robbed and a series of compact layers of soil are laid, in preparation for the Via Prenestina, within the limits of this spoliation cut. To the north the Via Gabina is built on top of the previous Republican roads. The stratigraphical and ceramic analysis suggest that the Via Gabina is constructed during the second century C.E., and the Via Prenestina in the third century C.E. In the fourth century C.E., substantive changes take place at the junction of these roads. A new rubble surface is laid over the road preparation layers and a ditch is opened across the city. The eastern edge of the ditch cuts the imperial roads at their intersection, thus suggesting a repurposing of the area at this spot.

The 2017 excavation in Area J allows not just to investigate the early phases of the regularized road system at Gabii, but also to better understand the chronology

of the two main roads of the ancient city. This poster presents the excavated evidence and evaluates it within the context of the broader urban developments at Gabii between the Republican and the Early Medieval periods.

An Early History of the Washington Society of the AIA

Elise A. Friedland, George Washington University, and *Allison Gartrell*, George Washington University

The Washington, D.C. Society, founded in 1895 as the tenth local society of the Archaeological Institute of America (AIA), became by the early twentieth century one of the largest and most influential societies, impacting archaeological discourse in America and the mission and stature of the national AIA. This project investigates and compiles a history of the Washington Society through its archives, publications, activities, and the affiliations and contributions of past members. The archives of the national AIA in Boston add important material that places the Society within the context of the national organization. In 1906, the Washington Society facilitated the procurement of a Congressional Charter that incorporated the national organization, making it unique among professional organizations. The charter required a national office in D.C., and the Washington Society first provided space at the George Washington University and later assisted in securing larger quarters in the historic Octagon House.

One of the major leaders of the Washington Society, Dr. Mitchell Carroll, who was Professor of Classical Philology and then Professor of Archaeology and the History of Art at the George Washington University, was involved in many of these activities. Dr. Carroll served as the Secretary of the Washington Society for more than twenty years and as the General Secretary of the national AIA from 1908–1918. Thanks to Carroll's connections, intellectual engagement, and energy, the Washington Society sponsored multiple excavations in the U.S., South America, and Europe; and played a central role in the inception and publication of the AIA's popular magazine *Art and Archaeology*, meant for amateur members and the interested public (the predecessor of today's *Archaeology Magazine*). In time, Carroll became the Director and Editor of the magazine, and the Society owned and operated the publication in affiliation with the national AIA from 1921 to 1935. Although the Washington Society seceded from the national AIA in 1935 over tensions related to the magazine, it rejoined in 1948 and has flourished, continuing to contribute to the national AIA.

This poster presents an early history of this influential local society, its contributions to the study of archaeology in America, and its impact on the national AIA in the early twentieth century. The project invites further research into the Washington Society as well as the national AIA's early debates surrounding its mission, publications, target constituencies, and the relationship between national and local societies.

The S'Urachi Project: Cultural Encounters and Everyday Life around a Nuraghe in Phoenician and Punic Sardinia

Peter Van Dommelen, Joukowsky Institute for Archaeology and the Ancient World, Brown University, and *Alfonso Stiglitz*, Museo Civico, San Vero Milis

Nuraghi, the famous dry-stone walled towers of Sardinia, are usually regarded as prehistoric monuments, because they were first built in the Bronze Age. They continued to be inhabited long after, however, and survived as, often substantial, settlements into later periods. Even if the later occupation phases of these monuments are routinely acknowledged, they have rarely been investigated in their own right—which is precisely what the S'Urachi project has been doing since its start in 2013: investigating the "afterlife" of one major nuraghe from late prehistory through to Classical and Hellenistic times. The Sardinian nuraghi are, moreover, key sites for the investigation of the colonial encounters and cultural interactions between local Sardinians, Phoenician traders, and Punic settlers, because they are the only places that were continuously inhabited before and during the colonial presence of Phoenicians and Carthaginians in Sardinia.

The nuraghe under investigation is that of S'Urachi, situated in the Upper Campidano and Gulf of Oristano regions of west-central Sardinia. Standing halfway between the rapidly rising slopes of the Monti Ferru to the north and the extensive salt marshes and lagoons of Cabras to the south, its inhabitants enjoyed easy access to a wide range of environmental zones. S'Urachi is one of the largest nuraghi in the region, while it is also just 15 miles away from the Phoenician colonial settlement of Tharros, and a rich variety of imported objects suggests that the site has long been a key place for colonial encounters.

In this poster, we will present the key results of the past five years of excavation at S'Urachi, showing first of all the continuity of occupation throughout the first millennium B.C.E., and the extent and depth of cultural interactions at the site between Phoenicians and Iron Age "Nuragic" Sardinians.

The Stelai Shrines of Greek Corinth: New Approaches and Evidence

Andrew Farinholt Ward, Institute of Fine Arts, New York University

During the ASCSA excavations of Corinth's Potters' Quarter between 1929 and 1931, a series of stelai were uncovered within unroofed enclosures containing deposits rich in votive material. Originally approached for their value within the wider context of the Potters' Quarter and the reconstruction of a chronology for Corinthian ceramics, these stelai shrines were reconsidered as a type following the discovery of similar shrines elsewhere in the city by Charles K. Williams. Defined in several brief publications as short-lived shrines that memorialized abandoned domestic cults, this interpretation has been cited across a series of recent publications. These studies' engagement with the material evidence, though, has been selective (with the stelai themselves receiving the lion's share of attention), in part because of the typological nature of the original early twentieth century excavations, which obscured the shrines' complex and rich evidence.

To promote a more holistic dialogue, over the past two years the shrines and their assemblages were reconstructed through the reexamination of original excavation

notes as well as published and unpublished archaeological materials. Plans of all these shrines are presented for the first time, and their votive assemblages' depositional relationships analyzed. This new contextual approach was paired with trace pigment analysis of the stelai themselves, faunal analysis, and study of comparanda recently discovered in the Corinthiad and the wider Peloponnese. While this research supports seeing these stelai as representations of offering tables, beyond the stelai themselves a far greater variation in votive practice and context exists than traditionally thought. Rather than solely short-lived memorializations, a new reading reframes the shrines as heterogeneous diachronic processes adaptable to the complexity of ritual life across ancient Corinth.

Delving Deeper: New Understandings of the High Relief Frieze from the Athenian Agora (2015–2017)

Rebecca Levitan, University of California, Berkeley, *Andrew Stewart*, University of California, Berkeley, *Eric W. Driscoll*, University of California, Berkeley, *Natalie Gleason*, University of California, Berkeley, *Erin Lawrence*, University of California, Berkeley, *Samantha Lloyd-Knauf*, University of California, Berkeley, and *Kelsey Turbeville,* University of California, Berkeley

The High Relief Frieze from the Athenian Agora is remarkable not only in regards to workmanship, but also in its movement, reuse, destruction, and dispersal. The gemlike and highly detailed multi-figure marble sculpture dates to one of the most celebrated eras of Greek Art—carved soon after the low-relief frieze of Phidias, and contemporaneously with the Athena Nike Temple on the Acropolis and the Statue of Nemesis at Rhamnous. The frieze was installed in the *pronoas* and *opisthodomos* of a temple which stood in the shadow of the Parthenon, only a stone's throw from the Hephaisteion. Worshippers on the Panathenaic route would pass the extremely fine sculptures before making their way towards the Acropolis.

Yet, the High Relief Frieze has never received the same degree of attention as contemporary monuments; a phenomenon that can be partially attributed to the sculpture's dynamic history. Now highly fragmentary, the frieze once adorned the temple of Athena Pallenis outside of Athens, only to be moved to the very city center in the Augustan period when the building was repurposed as an "itinerant" temple to Ares in the Agora. In the Post-Antique period, the sculptures were subject to three stages of vandalism and damage before their eventual deposit across the Agora and surrounding area.

This poster highlights the study of the High Relief Frieze at the American Excavations of the Athenian Agora from 2015–2017. The three-year process of studying the frieze included the identification, analysis, and attribution of excavated fragments. Through close study of the material, as well as related texts, a clearer picture of a once-magnificent artwork has started to emerge—including a possible reconstruction of the themes and iconography of the frieze.

From S'Urachi to the Sinis Peninsula: Multi-scalar Survey of West-Central Sardinia in the First Millennium B.C.E.

Linda Gosner, University of Michigan, *Alexander Smith*, The College at Brockport—State University of New York, *Jessica Nowlin*, University of Texas at San Antonio, and *Maura Vargiu*, Universitat de València

The nuraghe S'Urachi is a monumental stone construction in the landscape of west-central Sardinia. It served as a central inland place for local Nuragic people as well as Phoenicians, Carthaginians, and Romans over the course of the 1st millennium B.C.E. Since 2013, the Progetto S'Urachi has sought to better understand the daily lives of local inhabitants at this site in antiquity, and the cultural and economic links between them and the wider Mediterranean world. This poster details the results of our intensive site-based survey that we have conducted as part of this wider research, in an effort to better understand settlement patterns and land use in the wider landscape around the nuraghe.

Our investigation consisted of microtopographical, geophysical, and an intensive pedestrian survey. During the past two years, we excavated a series of four test trenches to ground-truth the results of these various survey methods. The combined results of these interventions have pinpointed the area north of the nuraghe as the location of the earliest settlement at S'Urachi, dating at least to the Late Bronze Age. We also uncovered evidence of later occupation of the site and new domestic architectural construction in the Punic and Roman periods. In this poster, we present the new evidence of settlement at S'Urachi and outline some of the later processes—from garbage deposition to flooding—that have impacted the wider landscape. We also detail our methodology, highlighting the utility of integrating both survey and excavation at the site level.

Finally, this poster will introduce our plans for a large-scale regional survey in west-central Sardinia, encompassing both coastal and inland areas around the Sinis Peninsula. The survey will investigate four primary nodes in the landscape: the agricultural plains in which S'Urachi is located; 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. These various locations were all inhabited and exploited during the 1st millennium B.C.E. through the Late Roman period and beyond. Our intensive survey of these diverse landscapes will begin in summer 2018 with the goal of illuminating the social and environmental factors that influenced colonial and local settlement patterns in west-central Sardinia in antiquity. The regional investigation will also situate our small-scale S'Urachi site survey in its wider geographic context, demonstrating the benefits of combining survey and excavation at different scales of analysis.

The Applications of ArcGIS Using Numismatic Material from Cosa's Bath Complex

Melissa Ludke, Florida State University, and *Elizabeth Palazzolo*, Thesaurus Linguae Latinae

Since 2013, the FSU/BMC excavations of the public bath complex near the Forum at Cosa have been exploring this previously unexcavated area of the colony. Over the first five seasons of the project, a total of 30 coins have been uncovered

across the area of excavations in the bath. This poster discusses the ways in which the data from these coin finds are contributing to our understanding of the bath complex, and demonstrates how visual representation of that data can be effectively utilized to illuminate relationships among objects and their contexts. Coin finds within bath complexes are usually associated with everyday use of the space, as there were numerous transactions that took place within baths to pay entrance fees and make other purchases. For this reason, as well as the secure terminus post quem that can be provided by legible coin finds, numismatic data from excavations of baths is most frequently employed for dating based on individual securely identified coin types. In our analysis of the coins excavated from the bath complex at Cosa, we are exploring ways to utilize numismatic data beyond isolated examination of individual identifiable coin finds.

Therefore, the use of ArcGIS to map numismatic material at Cosa contributes to an understanding of the connections between the location of the find spots and the possible functions of the areas in which the coins are found. As such, the goal of this project is to shed more light on the applications of ArcGIS and other mapping systems on numismatic data beyond the determination of a terminus post quem. Coordinates and elevations according to year and trench, included in the plotting of the coin find spots in ArcGIS, enables a visualization of numismatic concentrations and relationships. The results of this spacial analysis add to knowledge of the architectural construction and traffic patterns of the bath complex depending on the stratigraphic context in which the numismatic material was discovered. Along with assisting the identification of room function, an evaluation of Cosa's mapped numismatic data hopes to illuminate differentiation between coins found within architecture and coins found on surfaces or within habitation material, such as storage containers. Furthermore, such data and analysis presented in a visual format that is also cross-referenced with other facets of material culture, can aid in broader archaeological inquiry concerning numismatic finds from specified contexts.

Cosa Excavations 2017

Ann Glennie, Florida State University, *Allison Smith*, Florida State University, *Christina Cha*, Florida State University, *Nora Donoghue*, Florida State University, *Anastasia Belinskaya*, Florida State University, *Melissa Ludke*, 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). The 2017 season followed up on inquiries regarding the layout and chronology of the baths, as well as concerns about heat and water circulation within the building. To gather more information, fieldwork was targeted in three primary areas.

In 2015–2016 two trenches were dug near elevated watertanks along the northwestern edge of the building. This season, a third trench exposed more of the area to answer questions concerning the large labrum fragment found in 2016. Stone enclosure walls were found, along with a drainage feature that probably links to an underground water-retaining feature, possibly a cesspool or cistern. Many artifacts linked to hygiene and beauty were recovered during this season's excavation,

perhaps an indication of the space's function. With permission from the Soprinten-denza, this trench and the labrum became the first excavated by Cosa Excavations to be left open to the public.

The Laconicum and its environs have been investigated since 2013. This year a fourth trench was opened to the northeast exposing the remainder of two hot rooms found in 2015–2016. A preserved *bipedales* floor, large fragments of dissoci-ated mosaic, and five *suspensurae* supporting a *cocciopesto* floor were found. In the eastern part of the trench, an exterior vaulted storm drain was revealed, within which were elements of plaster panels, the exterior decoration of the complex.

The exterior eastern wall of the bath was excavated in the 2013–2014 and demon-strated that its northern and southern sections were executed in brick- and stone-work respectively. To understand this difference, which may represent a transition between the bath's hot and cold rooms, a trench was sunk on the interior side of the wall. Excavation revealed many vaulting and wall fragments which will need to be mechanically removed in 2018 to ascertain the building's imprint here.

Cosa Excavations has always sought additional ways to record and reimagine field data. This season that endeavor focused on the digital modeling of every excavated stratigraphic unit, as well as on the laser scanning of vaulting fragments removed from the Laconicum to reconstruct its roof. In addition to digital proj-ects, traditional architectural reconstruction methods were applied to the remains to imagine the itinerary through the bath and to conceptualize the mechanisms which moved water and heat throughout this unique bath complex.

Funerary Ritual and Collapse: A Mortuary Perspective on Political Decentralization in the Late Prehispanic Andes
Nicola Sharratt, Georgia State University

The collapse, circa 1000 C.E., of the two expansive Andean states—Wari and Tiwanaku—resulted in a prolonged period of decentralization across much of Andean South America. Unlike in many other examples of ancient state collapse, political regeneration did not occur swiftly. Instead, almost five hundred years of instability, stylistic localism, and regional turmoil followed, until state organiza-tion was instituted in the 15th century through Inca imperial expansion.

In the Moquegua Valley, southern Peru, these centuries of balkanization can be divided into two time periods; the terminal Middle Horizon (ca. 1000–1250 C.E.) and the Late Intermediate Period (ca. 1250–1470 C.E.). The earlier is associated with sites and styles, called Tumilaca, which exhibit considerable continuity with Tiwanaku practices and materials, despite the rejection of Tiwanaku political au-thority. The latter is associated with Estuquiña-style architecture and portable ma-terial culture that is radically different from Tumilaca which suggests a complete refutation of Tiwanaku cultural identity.

In this poster, I focus on one site (Tumilaca la Chimba) with both a Tumilaca and an Estuquiña occupation to examine funerary ritual during the transition from the terminal Middle Horizon to the Late Intermediate Period, part of my multi-year research project which: explores the long-term ramifications of political fragmen-tation, asks why post-collapse cultural continuity with Tiwanaku eventually came to end, and investigates the origins of Estuquiña communities.

In particular, I draw on data derived through excavations, funded by a 2016 Cotsen/AIA Excavation Grant, in the Estuquiña cemetery at Tumilaca la Chimba, to argue that treatment of the dead played a critical role in the processes of social interaction, cultural replacement, and ethnogenesis that occurred over the five centuries of political decentralization. I compare the 21 Estuquiña burials excavated in 2016 with 64 Tumilaca burials excavated at the site in 2006/7, as well as with earlier scholarship on other Estuquiña sites in Moquegua, to examine the extent to which Estuquiña funerary practice at Tumilaca la Chimba replicates that documented in the Tumilaca cemeteries at the site; in what ways funerary practice varies across the Estuquiña cemetery; and how Estuquiña funerary practice at Tumilaca la Chimba differs from that at contemporaneous sites in the Moquegua Valley. I conclude that mortuary contexts were loci in which members of the Estuquiña community at Tumilaca la Chimba negotiated and defined relationships a.) within the settlement, b.) with neighboring villages, and c.) with their Tumilaca predecessors.

Bird Eggs in the Diet of Ancient Pompeii: An SEM Analysis of Archaeological Avian Eggshell

Ariel Taivalkoski, University at Buffalo, and *Emily Holt*, University at Buffalo

As long as taphonomic conditions are good, eggshell is often found in large quantities at archaeological sites, occurring in middens, domestic trash pits, and occupational debris. Though eggshell is often a significant portion of the faunal assemblage at a site, eggshell fragments are rarely identified beyond the classification of "avian eggshell." However, it is relatively easy to identify "avian eggshell" to species with the aid of a scanning electron microscope. This technique has shown increasing promise within recent years. In the past the presence of avian eggshell has merely been assumed to be evidence of subsistence practices; however, by identifying avian eggshell to species we can use it as a parallel line of supporting evidence in order to gain a clearer picture of ancient subsistence practices.

The Pompeii Archaeological Research Project: Porta Stabia (PARP:PS) excavates near the dining and entertainment district within a working class neighborhood of the city of Pompeii. PARP:PS conducts heavy fraction flotation on soil samples from the excavations (mainly on closed contexts) making it ideal for this type of research, as it is much more likely to collect small fragments of eggshell which would not necessarily be collected through hand collection. We predicted that chicken eggs (Gallus gallus) would play an important role in the non-elite, working class diet, as chickens were relatively widely available in the Roman world and are often noted as being cheaper alternatives to other meat sources. However, we found that while Gallus gallus eggs made up the bulk of the eggshell assemblage, other Phasianiadae eggs made up a significant portion as well.

Crafting Cuboid Incense Burners in Dhofar: An Ethnoarchaeology Cultural Heritage Project in the Sultanate of Oman
William Gerard Zimmerle, Fairleigh Dickinson University

The Dhofar Ethnoarchaeology Project is a multi-year ethnography survey that studies the craft production of the Omani al-majmar (cuboid incense burner) in Dhofar from the southernmost region of the Sultanate. This area, where environmental and ecological factors favor the development of a domestic ceramic specialization, is also known for its contemporary terra-cotta cuboid incense burners, which are crafted today in a similar form and style as in the past. From interviews conducted on the ground, modern cuboid incense burner makers revealed important information on how they selected and executed Arabian architectural designs, using a repertoire of tools, decorations, and ideas to impress geometric patterns onto clays. The project documents this ancient craft tradition and the biographies of the women who are the keepers of this ancient heritage by collecting multiple data streams, which include: high-resolution photographs, videos, written narratives and oral folktales; organic residue analysis of frankincense and all kinds of aromatics including the residues of ancient incense burners; and descriptive typologies of the styles and forms of incense burners that are made today in the Sultanate.

Quality of Life Changes in an Ancient Maya Community: Longitudinal Perspectives from Altar de Sacrificios, Guatemala
Jessica Munson, Lycoming College, *Jonathan Scholnick*, Lycoming College, and *Lorena Paiz Aragon*, Altar de Sacrificios Archaeological Project

Inequality is a prominent and persistent feature of all large-scale human societies that has significant impacts on everyday life. Variation in material wealth and social capital, as well as differential access to specialized knowledge and other resources, directly impacts household quality of life (QOL) within ancient and contemporary communities. For the ancient Maya, the establishment of political institutions centered on divine rulership significantly contributed to QOL changes during the Preclassic and Classic periods (ca. 950 B.C.E.–950 C.E.). However, tracking these variations and measuring their effects pose specific challenges for archaeology. Well-documented settlements with an extensive and long-term occupation, like Altar de Sacificios, provide important contexts to investigate the rapid transformations associated with the emergence of institutionalized inequality and concomitant changes in QOL across diverse domestic settings. With the support of a Cotsen Excavation Grant, this study analyzes the contents of ritual deposits excavated by the current Altar de Sacrificios Archaeological Project and previous investigations conducted by Harvard University (1958–1963) to gain a better understanding of the wealth variations and distribution of specialized knowledge within this ancient Maya community over a span of about 2000 years. Understanding how these disparities shape the human experience, as well as how ancient societies responded and adapted to political changes and socioeconomic differences in the past, can provide important lessons for today's society.

A Multi-Faith Burial Ground: Radiocarbon Dating and its Implication for Dietary Studies in Medieval Portugal

Alice Toso, University of York

The Iberian Peninsula, at a crossroads between Africa and Europe, located between the Atlantic and the Mediterranean, saw the birth of one of the major multi-faith and multi-cultural societies in medieval Europe. For seven centuries Jews, Muslims, and Christians co-existed in this region, shaping a unique pluralistic society: first under Islamic political control and later under Christian rule following the reconquest of the 12th century. In multi-faith societies, peaceful co-existence and rulers' religious tolerance are inextricably linked, affecting all aspects of socio-religious life including dietary requirements. This study addresses debates on socio-religious change by applying a scientific technique to study diet. Analysis of the stable isotopes of carbon ($\delta^{13}C$) and nitrogen ($\delta^{15}N$) in bone collagen gives information on the long-term dietary practice and is unique in providing direct evidence for diet to the individual level. This research applies carbon and nitrogen stable isotope analysis to the skeletal remains of Muslims and Christians from the medieval site of Beja (9th–12th centuries C.E.).

This cemetery is notable for the presence of both Muslims and Christians in the same burial ground and offers a rare opportunity to explore Islamic and Christian diet in the same location at the same time. Preliminary dietary results indicated a significant difference between the two groups, suggesting a correlation between faith groups and dietary preferences. However, radiocarbon dating of five individuals from intercutting graves, showed that the individuals were not contemporaneous: the Muslims dated to the Islamic rule period (8th–12th) while the Christians dated to the period after the conquest (1147 C.E.). The new chronology of the burials had a major impact on the interpretation of this site and a significant implication for the wider research on diet in medieval Portugal. The difference in diet displayed at Beja, rather than being solely related to faith, is believed to be the result of a sizable change in economy and subsistence strategies brought about by the Christian conquest.

"Shared Objects of Thought": Reconstructions of Late Minoan IB Architecture at Mochlos

Angela M. Ratigan, Ruprecht-Karls Universitat Heidelberg

This poster explores the topic of reconstructing Minoan architecture through a series of 3-dimensional digital reconstruction models. The presentation focuses on two Late Minoan IB houses in the settlement of Mochlos, Houses C.1 and C.3, and features a tablet outfitted with the 3D digital models to encourage audience participation and exploration. Traditional stone-by-stone, axonometric, and reconstruction drawings are also displayed to highlight the complementary character of the digital models, as well as the unique affordances of navigable, reconstructed built environments.

The presentation confronts the challenges associated with the endeavor of reconstructing Minoan buildings and emphasizes its potential to facilitate new observations concerning specific aspects of design, circulation, and affect on a case-by-case basis. Houses C.1 and C.3 share some architectural similarities, but they differ in terms of size, finds, situation within the settlement, and state of preservation. Such idiosyncrasies present scholars with unique challenges of interpretation and description, and this series of digital models highlights some of the contributions of digitally reconstructed environments to the broader study of Minoan architecture.

Borrowing from a number of comparative sources, both iconographical and architectural, the models synthesize evidence and are expressions of the state of knowledge in the field of Minoan architecture. As externalizations, the 3D reconstruction models complement complex semantic descriptions, acting as what Kirsh calls "shared objects of thought" (*AI and Society* 25 [2010], 441-454). These objects facilitate cognition, encourage dialogue, and generate alternative interpretations. Thus, the poster invites specialists and students to explore, consider, and debate these visual arguments by rotating and navigating the models on the tablet and identifying—in three dimensions—specific points of interest and contention.

Surveying the Possibilities: An Experimental Archaeology Approach to Understanding Groma Design

Catherine Teitz, Stanford University

Straight lines and careful grids over great distances are hallmarks of Roman infrastructure, made possible by the famous surveying tool, the groma. Yet ancient evidence of the groma and its practical applications are limited. This leaves the modern archaeologist with many questions about design and use approached here through experimental archaeology. The interpretation of textual sources, iconographic representations, and archaeological finds result in two possible groma designs. The most commonly accepted version was first drawn by Schulten in 1912 entirely from texts. This design offsets the cross from the ferramentum, the vertical shaft, by means of a pivoting bracket. The discovery of a probable groma in Pompeii by Della Corte in the same year seemed to support this design, as Della Corte reconstructed his finds along Schulten's drawing. In a 1994 review of Della Corte's work, Schiöler deeply questioned the design choices, Schulten's justifications, and Della Corte's finds. Given that there is no clear evidence for a bracket in the textual, archaeological, or visual sources, Schiöler posits that the cross rested directly atop the ferramentum. This would solve the difficulty both with reconciling the visual representations and with balancing the top-heavy cross away from the ferramentum.

To shed light on the issue of design, I built a groma with a removable bracket to assess the usability and accuracy of the proposals. I tested each design in three distinct applications over extended distances. In addition to studying the design of the instrument, I analyzed the accuracy of the groma and the practicalities of its use. These test cases enhance our understanding of the groma in land surveying, as they reflect the practical limits for a surveyor and subsequently how land could be divided. I found that the furthest distances possible to survey while maintaining accuracy parallel the common survey unit, the actus. I conclude that

the bracket, although helpful, is not an essential feature for surveying with the groma. Hesitations expressed by modern scholars about the non-bracket design, including set-up and sighting, were found to be non-issues. This suggests that the bracket, created from non-specific textual evidence, was a modern design choice that became embedded in the general understanding of the instrument, even as more material came to light. Based on the finds of the last century and empirical testing, the standard design of the groma should be amended to a cross resting atop the ferramentum.

Mapping Knowledge Networks and Workshop Construction in the Roman Fish Salting Industry
Christopher F. Motz, University of Cincinnati

In my dissertation, I investigate the ways in which knowledge networks shaped the construction of Roman industrial buildings in the western Mediterranean. Discussions of the spread of Roman culture often reference changes in architectural forms, particularly the spread of the villa and the proliferation of monumental architecture. In contrast, my project focuses on the creation of workshop spaces in the fish salting and fulling industries and the ways in which the knowledge required for their construction was transmitted through a network of human actors. Unlike other goods that were transported easily, many industrial fixtures, such as vats and cisterns, were fixed and normally subterranean; thus I argue that it was the technology of knowledge that moved. Studying the built environment of workshops and factories in the western Roman Empire offers a remarkable opportunity to investigate the spread of technical knowledge amid an atmosphere of expanding horizons and rapid cultural change.

This poster presents an overview of my research on the hundreds of fish salting installations at archaeological sites across the western Mediterranean. I have gathered data through a combination of site visits and the examination of excavation publications, supplemented by the recent excavations of the University of Cincinnati's "Pompeii Archaeological Research Project: Porta Stabia", which offers one of the largest datasets on fish salting vats in Italy. I carefully inspected each workshop to identify a range of construction techniques and strategies of spatial organization. These data allow me to compare the techniques and strategies—both geographically and chronologically—in order to determine how certain approaches spread, when they spread, and to where they spread.

Social Stratification and Polis Formation in Archaic Thessaly—Preliminary Analysis of a Cemetery Outside Stavros, Thessaly
Katherine G. Bishop, University of Alberta, *Sofia Karapanou,* 15th Ephorate of Antiquities in Larisa, and *Kristen Millions*, University of Alberta

Current scholarship on Archaic Thessaly emphasizes the importance of "big sites" accompanied by conspicuous funerary culture in the form of opulent tholos tombs as indicative of the territoriality and increasing social stratification in some early Thessalian communities (e.g., Larisa, Pherae, and Krannon). This picture is

far from complete and needs further scrutiny, added complexity, and collaboration. We present an analysis of funerary culture manifested from an unpublished Archaic cemetery in order to contribute to our knowledge of community building in Archaic Thessaly. The Stavros Cemetery consists of at least 40 tombs near the modern village of Stavros, which may have belonged to a settlement known in antiquity as Euhydrion (medieval Ktouri). The Stavros Cemetery Archaeological Project provides a unique opportunity to examine a region and time period that have been given less scholarly attention. We have abundant literary sources from Attika and other regions in southern Greece for the Archaic period which testify to the formation of the polis, however we know far less from regions which developed into so-called *ethne*. Thessaly is one such area wherein communities developed and adhered to a more regional ethne-based identity. 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. We present our initial findings of a systematically excavated, well-documented, unlooted grouping of Archaic cist graves, which provides us with a unique opportunity to study social similarity and differentiation in a developing community. Our collaborative analysis includes cooperation and analyses with the original excavator (Karapanou), the osteological analysis of human materials from an anthropological and osteoarchaeological perspective (Bishop), and the ceramic analysis of the vessels found within the graves themselves (Millions). Our poster presents preliminary findings from three unique graves of an adult male, a grave without full skeletal remains but with a rich ceramic assemblage, and a child (B29, B30 and B19a, respectively) buried during the late Archaic period. Taken in conjunction, the ceramic material and human remains afford us the opportunity to study the representation of various identities within a funerary context. Overall this study will lead us to develop a more holistic view of the development of the polis in Thessaly, as well as further our understanding of social stratification within the region during the late Archaic period.

Secondary Archaeology Education and Museum Partnership: A Case Study
Sara Newman, University of Colorado Denver

This case study examines the benefits and barriers of forming a partnership of Regis Jesuit High School and a local natural history museum. Currently, museums are underfunded and face questions of cultural relevance and value. With ever-decreasing budgets, exploring innovative ways of completing organizational mission statements or visions are needed.

In 2017, Regis Jesuit HS entered into a partnership with a regional museum to develop a 3D photo modeling course. This partnership aimed to be mutually beneficial to the museum and students. The museum receives a low-cost database of 3D images that can be used for further study or outreach. The digital collections are important for helping lower barriers of entry to studying these artifacts traditionally out of reach to the public. In turn, the partnership with the high school supports the museum's mission of an empowered community that loves, understands, and protects the world through engaging with their collections.

To benefit students, the museum allowed them to acquire real world skills by learning 3D scanning technology. They did this through engaging with the museum's collections. Students were given the rare chance to interact with authentic artifacts. While artifacts are usually placed behind glass, students developed a more complete appreciation by connecting with the object for several hours as they modeled these items. This led to the students gaining an appreciation of the idiosyncrasies of the museum collection. In a field that relies on membership to help with research, it is imperative to engage community members to see the value of cultural institutions such as a museum. As teenagers are developmentally open, being able to work closely with a collection helps cement this value.

Possible barriers that could have prevented or derailed this partnership included: mishandled or broken artifacts, lack of any interest amongst the students, or organizational challenges with working in storage or lab space in museums. This poster will examine different means of overcoming them. There is also an instutionalized belief that the students would have been unable to accomplish such tasks. These types of partnerships will help foster an understanding within archaeologists and collections managers that using secondary students is essential to continue both the work of preservation as well as fostering student appreciation. This poster demonstrates that fostering a relationship between collections and archaeologists with high school and undergrads is important for the future of the field.

The Functions of Scored Basins in Minoan Society through Experimentation
Brianna Jenkins, University of North Carolina at Greensboro

This poster discusses the production of Minoan scored basins and examines their functions from an experimental perspective. The scored basins typically have a flat base with large open-mouthed rims. Some have handles, while others have spouts, but their unique incisions inside the vessel set them apart from other ceramic objects in Crete. Using examples from the Artisan's Quarter and the Farmhouse of Chalinomouri at Mochlos, Crete, this poster discusses the tools that were used to create these vessels and the fabric types that were used. Different fabric types were employed and required different production techniques. The poster provides images of whole vessels, fragmentary sherds, the fabrics, and the patterns of the scored basins.

This discussion deals with the possible functions of the scored basins as a result of hands-on experimentation. In addition to the insights offered through this experimentation, the presentation also considers the findspot, assemblages, and architectural context of which these basins are a part. Preliminary results suggest that the scored basins serve a communal function as well as utilitarian needs. Three potential uses are evaluated: clay storage, waste disposal, and olive oil production.

New Excavations of the Roman Villa at Poggio Gramignano (Lugnano in Teverina, Umbria)

David Pickel, Stanford University, and *David Soren*, University of Arizona

This poster reintroduces the Roman Villa at Poggio Gramignano (VRPG) and presents a preliminary report of new excavations of the villa conducted between the summers of 2016 and 2017 by American and Italian archaeologists. These two seasons are the first in a multi-year research project—a partnership between the Soprintendenza Archeologia Belle Arti e Paesaggio dell'Umbria, the University of Arizona, and the Commune di Lugnano in Teverina. The project aims to better 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 by 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 47 children were discovered, ranging in age from prenatal to three years. Taking into account much material and textual evidence, Soren suggested that this cemetery was the result of an acute malaria epidemic. Subsequent analysis of the oldest individual (B36) utilizing more precise methodologies (aDNA extraction and hemozoin isolation analysis) corroborate this interpretation- B36 most likely died from an infection of *Plasmodium falciparum* malaria, the most malignant strain of malaria.

The 2016 and 2017 campaigns further excavated the area of the infant cemetery, specifically Rooms 11, 12 and 17. Three burials of varying types were newly discovered. In addition, a curious trace of piping was revealed within Room 16 of the upper villa area. Also, aerial photography and GPR revealed many new structures nearby.

VRPG provides a rare opportunity to not only study the deadly history of malaria, but also the history of central Italian Roman villas. This poster reintroduces the villa and presents the preliminary results of the 2016 and 2017 excavation campaigns. This poster also discusses the novel protocol developed by the project's bioarchaeology specialist, Dr. Jamie Inwood, for identifying infections of *P. falciparum* within ancient human remains.

Foodways of the Iron Age Gabines

Nicholas T. Cullen, University of Michigan

Due in large part to the lack of systematic sampling of archaeobotanical material in Italy, very little is known about the diet of any of the cultures that inhabited the Italian peninsula prior to the Late Republic. Most of what is known has been extrapolated from Late Republican and Early Imperial texts, which come exclusively from a Roman point of view. New excavations at the site of the ancient Latin city of Gabii are one of a few notable exceptions in this regard. Soil samples were taken from an elite complex on the acropolis, which had been continuously occupied from the ninth century to the sicth century B.C.E.

The analysis of the archaeobotanical remains has produced data which are consistent with other Iron Age and Archaic contexts in Gabii, but the data also show a pattern of staple crop preferences that is different from the few available comparanda found in Archaic Rome. Given the importance that food culture plays in the formation of identity, the exploration of these differences can add nuance to our understanding of self-perception during this time period. In this way, the results of this study have interesting implications for the study of Latin identity during the Iron Age.

TRAP 2017: The Timok Regional Archaeological Project (Serbia)
Sarah Craft, Carleton College, and *Stefan Pop-Lazić*, Archaeological Institute Belgrade

Thanks to an award from the Julie Herzig Desnick Endowment Fund for Archaeological Field Surveys, a small team of researchers from Florida State University, the Archaeological Institute Belgrade, and the National Museum Zaječar undertook the first season of fieldwork for the Timok Regional Archaeological Project (TRAP) in August 2017, in the vicinity of the imperial Roman palace Felix Romuliana (Gamzigrad), a UNESCO World Heritage Site in eastern Serbia. Since 1953, when excavations first started at Romuliana, the majority of research has concentrated on features within the fortification walls. Systematic survey of the area surrounding the palace first took place in 2001 and continued in 2008/2009, identifying more than 91 sites belonging to the Prehistoric, Roman and Medieval periods in the immediate vicinity of Romuliana. Building upon these earlier endeavors both methodologically and in geographical extent, TRAP takes a diachronic landscape perspective to explore the pre-existing local social and economic dynamics behind the construction of Felix Romuliana (Gamzigrad), as well as the subsequent impact of the palace on the local population up through the modern period. Our investigations, which combine remote sensing, archaeological surface survey, and targeted test excavations, employ three different scales of analysis: (1) identification of the network of roads built in the early first millennium C.E. that connected the palace to contemporary settlements; (2) the location of raw materials, specifically quarries and mines, exploited in the region surrounding Felix Romuliana; (3) and shifts in settlement patterns before, during, and after occupation of the palace. The 2017 season employed intensive and extensive survey methods as well as test trenching of several features recorded in the survey area, including a substantial Roman lime manufacturing complex. The 2017 fieldwork, recorded with a suite of off-the-shelf and bespoke digital applications, sheds light on the diachronic inhabitation of the landscape, particularly in the Prehistoric and Late Roman periods. This poster will present in more detail the aims, initial results, significant finds, and future directions for the project.

Wallflowers: Dado Plants at Oplontis and Beyond
Alison Rittershaus, University of Michigan

Though they appear in many of the best known contexts for Roman wall paintings, the images of plants that often decorate dados rarely draw the attention of

scholars. This is partly due to their location low to the ground and below primary lines of sight, a placement that likewise contributes to their often poor preservation as a result of scuffing, as well as the relative uniformity of their iconography. Nonetheless, the prevalence of these elements among the repertoire of motifs deployed in the creation of Roman decorative environments is remarkable, and crosses boundaries of private and public use, urban and suburban space.

This poster provides a brief overview of the regional distribution of these images in areas buried by the 79 C.E. eruption of Mount Vesuvius, before focusing on their deployment throughout a single context: Villa A at Oplontis, where they appear in at least 16 separate spaces, ranging from small light well gardens (rooms 20, 61, 68, 70, and 87) to lengthy porticos (33, 34, and 40). By discussing their placement, differences in the details of their iconography, and their integration into a larger architectural and environmental context, it is possible to see that dado plants not only serve as a neutral decorative motifs, but as an index of the relationship between art and nature (ars and natura), the transformation from uncultivated to tamed, and the comfortable incorporation of semi-wild elements into the domestic realm.

Sweat the Small Stuff: Understanding the Miniature Ceramics of Gabii
Zoe Jenkins, University of Michigan

Over the decades, archaeologists have come to appreciate the enormous value of studying ceramics of all types. Despite this advancement, there remains one class of ceramics that is often hurriedly labeled and then set aside: miniatures. Often labeled as "votives," these artifacts receive little direct attention in the scholarship regardless of their impressive diversity of shape, style, and fabric. Moreover, their classification as votive often misguides researchers towards a function that is not always substantiated. In this poster, I intend to review the miniature ceramics uncovered at the Latial settlement of Gabii as an opportunity to bring to light issues of identification, functionality, and possible new interpretations concerning their use in the Early Iron Age.

Typically, miniature ceramics carry the very strong connotation that they are without function aside from being a votive. This study questions this assumption by analyzing the find contexts of the miniature ceramics of Gabii. The settlement, which is located just 30 km east of Rome, began in the Early Iron Age as a cluster of huts. The vast majority of the miniature ceramics come from this early period, including the enigmatic *foccace* "votives"(small bread-shaped tablets). Although they were initially classified as votives by the excavators, the contexts in which they were discovered lack any definitive religious, cultic, or ritual characteristics. Moreover, some of these pieces were identified as votives on account of their size despite the possibility that they were functional, such as a small lamp found in Area B. Such miniatures demonstrate how potentially erroneous a classification of votive can be, in regards to both use and context. This report proposes that miniatures should only be identified as votive if they are found in a context that suggests such a function, such as a purposeful deposit in a group, a grave, or a cultic structure. In this way, miniature ceramics are analyzed within their real context without being restricted by the loaded connotation of "votive." For example,

the Gabii miniatures were uncovered within a domestic hut context which might suggest their use as toys or pedagogical tools for teaching cultural norms to the young, rather than as a votive.

Although the possibility that such miniature ceramics are votives can never be ruled out or disregarded, it is imprudent and unhelpful to assume such a classification. By offering a new method of identification and analysis, this study shines a fresh light on understanding miniature ceramics.

Enabling Virtual Public Access to Archaeological Features in the Caves of the Cumberland Gap National Historical Park

Charles E.A. Finney, Cave Research Foundation, *C. Stuart Daw*, Cave Research Foundation, and *Joe Settles*, Cave Research Foundation

Cumberland Gap in the southeast United States is a natural passage through the Cumberland Mountains and was used extensively by prehistoric animals and humans. A prominent cave, located just south of the saddle of the gap along the pathway of migration, saw increasingly diverse visitation to and utilization of the cave from the late 18th century. From saltpeter mining during the War of 1812 to extensive visitation by Civil War soldiers to a century as a highly regarded tourist cave, the story of Gap Cave is one of interwoven demographics reflecting the usage patterns of the periods.

In 2006, in collaboration with the National Park Service (NPS), the Cave Research Foundation (CRF) initiated a dedicated Cultural Resources Survey. Graffiti, primarily of personal signatures, forms the vast majority of evidence of visitation. Here, we report on our efforts to document cultural resources in the Park's caves using multiple recording techniques. Of special value is ancillary research to link signatures with historical records to produce a more nuanced view of the caves' multifaceted role in the local history, culture, and economy.

Because the Park's caves have controlled access, typically via a ranger-guided tour of only the largest cave along a concrete tourist trail with limited sightlines off-passage, the public cannot access the cave's rich and unique archaeological features. This limitation is exacerbated for those physically unable to traverse the trail with its steep grades, occasionally low ceilings, and narrow stairways and bridges. Of significant interest to the NPS and CRF is allowing the public to view and learn from resources that cannot be easily accessed, either on- or off-trail. To this end, the CRF is developing techniques for documentation and reproduction of archaeological features in the cave. These techniques must be flexible and robust to account for an often harsh cave environment and preferably be achievable using consumer-grade equipment and tools.

We highlight here the development of our recording and research techniques using advanced photographic techniques such as Reflectance Transformation Imaging, photogrammetry, and spherical photography to document features and reproduce 3D-printed plastic replicas and virtual-reality 360-degree images of artifacts and cave features for public educational purposes. This work helps to document the rich history of the Cumberland Gap cave system and fulfill the National Park Service's mission of documenting the history of the park and preserving cultural heritage resources for future generations.

The Domus del Pozzo at Ostia Antica: A Model of Shared Design Principles and Distinct Decorative Programs in Roman Housing Types

Elizabeth Johnstone, University of Leicester

Shared design principles have been noted in multiple Roman housing types of the imperial era. Specifically, visual axes and hierarchical decoration are found in mediana and domus houses at Pompeii, Herculaneum and Ostia. Visual axes are created by aligned rooms which carry the eye through the largest spaces of the house. Hierarchical decoration is a variation in wall, floor and ceiling embellishment with larger rooms along the visual axis being the most luxurious and smaller rooms off the axis being less luxuriously decorated. The presence of visual axes and hierarchical decoration in multiple types of Roman housing likely reflects culture-wide design principles. At Ostia Antica, both the mediana and domus plan houses demonstrate this shared Roman design plan. Additionally, both house types in this city contain decorative programs which are distinct from each other and lacking in significant variation from one house to the next. These decorative programs seem to identify housing types as mediana or domus. The Domus del Pozzo in region 5 can be considered a useful model of both the shared design principles of the mediana and domus and the standardization of their respective decorative programs. This house was first constructed as a mediana in the second century C.E. and converted to a domus in the third century C.E. During this conversion, the domus floorplan was placed over the existing mediana floorplan—thereby maintaining the original visual axis. Additionally, the domus decorative program replaced the mediana program in the largest rooms of this visual axis—thereby allowing the original mediana to "become" a domus. This renovation demonstrates: 1) shared design principles between housing types which are seen in the maintenance of the visual axis, and 2) distinct decorative programs which distinguished mediana and domus housing types from each other.

An Ecological Framework for Diachronic Change in Human Settlement in the Loukkos River Valley, Morocco

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

In this poster, we present an ecological model for variations in human settlement patterns in the Loukkos River Valley in northern Morocco. We provide a framework for understanding archaeological signatures of culture change from the Late Iron Age (eighth century B.C.E.) to Late Antiquity (fifth century C.E.). We use the ideal free (IFD) and ideal despotic (IDD) distribution models to do so, considering the role of important environmental variables in settlement patterns. Primary variables include a proxy for fresh water availability, net primary productivity, distance from the contemporary harbor, and distance from the primary site of Lixus. The IFD and IDD have been applied successfully at a variety of geographic scales to both hunter-gatherers and more complex societies. A recent application in a region of Bronze Age (ca. 3000-1050 B.C.E.) Greece has demonstrated the utility of these models in the Classical World.

The Loukkos valley and northern Morocco have a strong potential for the application of these models, especially for Roman sites during the historical period of annexation and occupation of the region after ca. 44 C.E. In light of the documentation of Roman sites in the Itinerarium Antoninum, for example, human interaction with the landscape can be modeled for different periods and different communities, which initiated changes in the acquisition of resources and the distribution of sites. In this case, the ability to analyze a historical event like Roman colonization in the framework of an IFD/IDD model has not yet been tested and represents a new approach. The excavations at Lixus, as well as the data from surface surveys in the hinterland, can be used to test the predictions of the model, to determine the effects of the Roman empire on the rural economy of the first through fifth centuries C.E. This approach has broad implications for understanding the effects of colonization and human-environment interactions in other regions of the world.

Applying Digital Photogrammetry on the Venus Pompeiana Project
Matthew C. Harder, University of Missouri, and *Daniel P. Diffendale*, University of Michigan

The Venus Pompeiana Project (VPP) is a new collaboration between the University of Missouri-Columbia and Mount Allison University, under the auspices of the Pompeii Archaeological Park, to resume study of the Sanctuary of Venus at Pompeii. VPP aims to clarify the results of recent excavations between 2004 and 2007, which were only partially published, and to follow up on questions raised by that work. For instance, it was proposed that the earliest temple structure on the site predates the establishment of the Roman colony (80 B.C.E.) by perhaps half a century. VPP's first field season, in July 2017, was directed toward identifying the extent and organization of the first sanctuary, and providing greater resolution on its date. We present VPP's spatial documentation strategy employed during this first season, including in particular digital photogrammetry. This technique allows archaeologists to create scaled, high resolution, three-dimensional models from a series of digital photographs. By generating such models, we are better equipped both to integrate the data from previous excavations and to test hypotheses concerning the organization of the precinct as a whole. The documentation strategy adopted by VPP includes the creation of photogrammetric models of every excavated stratigraphic unit; this provides a rich dataset that, among other benefits, allows us to draw sections across the excavation area in any direction. The grouped models can be viewed and manipulated on the computer to aid in the visualization of the depositional sequence. The final stages of the temple's Roman history are also of great interest, as the structure was under reconstruction when the site was buried by Vesuvius in 79 C.E. Photomodels of the architectural elements strewn across the sacred precinct allow us to test hypotheses about the intended form of the never-completed Flavian-era temple

Defining Settlement in the Nile Valley: Two Seasons of Geophysical Prospection in the Heartland of Napatan Kush

Gregory Tucker, University of Michigan, and *Geoff Emberling*, University of Michigan

In the context of Mediterranean cultures Kush, or Aethiopia, is known from its description by Herodotus, for its gold-production as described by various authors, and for its conflicts with Rome in the late first century B.C.E. that brought the famed bronze Head of Augustus to the Kushite capital at Meroe. However, from the ninth to the sixth centuries B.C.E., the Kingdom of Kush was based further north at Napata, near Jebel Barkal, during which time Kush also ruled Egypt as its 25th Dynasty.

The second hand accounts of Aethiopia by the classical authors suggest that Kushite society was organized and functioned unlike those in the Mediterranean world, which may perhaps be visible in diverse forms of urbanism. However, although we have some understanding of the political history, religious structures, and burial practices of this region, the urban form of the cities of Napatan Kush have remained generally unexplored. While other important ancient centers of Kush have been the focus of archaeological projects, we do not yet—for a variety of reasons—have comprehensive plans of the important Kushite sites of the region surrounding Jebel Barkal.

To better understand the operation of Kushite society, through the form of its architectural remains and their ability to reveal social relations, we began a project to undertake geophysical prospection at three sites along the Nile: el-Kurru, Sanam Abu Dom, and Jebel Barkal. This project is based at the University of Michigan and operates with the approval and support of the National Corporation for Antiquities and Museums in Sudan. The preliminary season, in 2016, explored each of the three sites to gain initial results and to determine the most appropriate technique for the subsequent seasons of the project. Following on from this exploratory season, the 2017 campaign focused on gaining a more complete picture of the urban center at Sanam via magnetic survey. The results of these first two seasons of work are presented in this poster with an emphasis on the new discoveries at Sanam. These results give a more complete picture of the urban form of the site, especially in the area between the Amun Temple and the Treasury, the two most well studied and excavated structures, and combined with the results from the other sites prove to be inspiring for the continuation of this project and ultimately a better understanding of Kushite society from the Napatan Period.

Ban Qala: An Investigation of a Late Chalcolithic site in the Qara Dagh Valley of Iraqi-Kurdistan

Antonietta Catanzariti, Smithsonian Institution, and *Adam Maskevich*, Independent Scholar

This poster presents the results of the first season of excavation at Ban Qala, Iraqi Kurdistan. Ban Qala is located south of the village of Tilla Zayet in the Qara Dagh Valley, approximately 41 km from Sulaymaniyah. The site was first identified by Iraqi archaeologists in a survey carried out in the 1940s. In 2015, the Qara

Dagh Regional Archaeological Project team conducted their own survey and was able to identify the presence of Late Chalcolithic material at Ban Qala. This year the excavation of a step trench on the southern slope of the site revealed Late Chalcolithic 1-2 (4800/4500–3850 B.C.E.) and Late Chalcolithic 3-5 (3850–3100 B.C.E.) occupation levels. This poster will discuss the data collected and their implications for understanding Late Chalcolithic settlements in the Qara Dagh Valley. The strategic position of Ban Qala, close to the main road that leads to the east via the Pass of Gilazarda to the Shahrizor Plain, and to the west via the Bazian Plain to Chamchamal, suggests that the site was part of a trade network connecting these regions. This is indicated by the presence of stone tools, particularly obsidian, that were manufactured from materials not local to Ban Qala. In addition, the recovery of several bevelled rim bowls in situ suggests that local ceramic production was being carried out within the context of a widespread Mesopotamian ceramic tradition. The context of these bevelled rim bowls also affords some indication of their function.

The Ban Qala excavation is one of the first conducted in the Qara Dagh Valley. It contributes to our knowledge of the occupational history of the area and provides a regional perspective from the mountainous region of Northern Mesopotamia. Future research will concentrate on continuing the reconstruction of the chronological sequence of the site and exploring the presence of earlier periods.

The Mycenaean Kylix at Mt. Lykaion: An Investigation into the Late Helladic III Vessel's Appearance at the Ash Altar of Zeus
Stephen Czujko, Independent Scholar

Hundreds of fragments of Mycenaean kylikes (a Late Helladic III ceramic drinking vessel) were recently found in the ash altar of the Sanctuary of Zeus at Mt. Lykaion, as part of the ongoing synergasia project between the American School of Classical Studies at Athens and the Ephoriea of Antiquities of Arcadia. In this research, I present the results of a distribution analysis of the Mycenaean kylix, conducted to provide a better understanding of the importance of Mt. Lykaion in the Late Helladic III period and its association within the larger region. The focus of this research is a cache of kylix sherds recovered from the altar during the 2007–2010 seasons, and discussed in earlier scholarship on the site. I compare this cache to the assemblages of ceramic materials from 290 other Late Helladic III sites in the Peloponnese, along with its neighboring areas and islands.

At the heart of this analysis is an examination of the kylix's wide distribution and distribution density across the total of 291 sites. The results of this research permit new and useful insight pertinent to understanding Mt. Lykaion better. The Mycenaean kylix appears in 124—fewer than half—of the 291 sites. Only 12 sites, including Mt. Lykaion, have more than 10 sherds attested to them.

The results of this research indicate that the kylix is not a common drinking vessel. Instead the data suggest that the vessel was used for specialized purposes, most likely feasting, which has clear ritual implications. Of the small number of sites with large assemblages of kylix sherds (more than 10), every site—Tiryns, Kastraki (Asine), Zygouries, Korakou, Berbati, Tsoungiza, Ayios Stephanos, Nichoria, the Menelaion, Mycenae, and Pylos—was an important Mycenaean center.

This list is comprised of major settlements, pottery production centers, and, most notably, palaces. There is no evidence to suggest that Mt. Lykaion fits into any of these categories. As such, the assemblage of sherds, located on top of a mountain in southwestern Arcadia, must be ritually significant. Mt. Lykaion's kylikes, in this light, as well as the site itself are exceptional, and worthy of further scrutiny and discussion.

Finds from the Etruscan Necropolis at San Giuliano: Preliminary Results from the 2016 and 2017 Field Surveys and Excavations

Veronica-Gaia A. Ikeshoji-Orlati, Vanderbilt University, *Colleen Zori*, Baylor University, *Davide Zori*, Baylor University, and *Lori Baker*, Baylor University

The San Giuliano Necropolis, located within Marturanum Regional Park in northern Lazio, is well-known for its numerous Villanovan and Etruscan rock-cut tombs. In 2016, the San Giuliano Archaeological Research Project (SGARP) began systematic survey of the necropolis and salvage excavations at two Archaic Etruscan tombs (G13-001 and E13-035). In 2017, SGARP staff and students began analyzing the osteological and ceramic materials from the tombs using X-ray fluorescence (XRF) in addition to traditional morphological approaches. This poster presents the preliminary analyses of the materials from both seasons.

The walking survey of the necropolis, completed in 2017, identified more than 450 tombs in the vicinity of the San Giuliano Plateau. While many of the tombs have been heavily looted and extensively reused by shepherds well into the 20th century, surface collections from around the necropolis include high-quality Attic red-figure kylix fragments, Etruscan red-figure body sherds, and concentrations of diagnostic bucchero sherds. The distribution of bucchero and impasto sherds in particular, with at least one concentration at the base of an eroded slope, suggests not only the recent removal of funerary goods from the necropolis but also the presence of an Etruscan settlement on the plateau above.

The SGARP tomb excavations, despite heavy looter disturbance at both sites, have likewise produced diagnostic sherds of relief-decorated red impasto pithoi, a red impasto tripod brazier, black-figure decorated vessels, and, from E13-035, two complete bucchero vases. This poster discusses the results of ongoing work on the results from 2017 XRF analyses of selected materials, as well as the implications thereof on the shifting allegiances of the Etruscan settlement at San Giuliano between Cerveteri and Tarquinia during the Archaic period.

The Bronze Age Terracotta Statues from Ayia Irini, Kea and Their Costumes

Bernice R. Jones, Independent Scholar, and *Eleni Hasaki*, University of Arizona

Among the most remarkable findings from the Bronze Age settlement at Ayia Irini on Kea is the assemblage of more than 50 terracotta statues of large-scale female figures that appear to have had central significance as venerated cult objects. They were recovered from mainly two rooms (Rooms 1 and 6) of the "Temple" in different layers. They are dated to the LH II /LMIB period (1500–1425 B.C.E.). These statues measure roughly half to three-quarters life size (0.70–1.20 m in

height), and represent women wearing skirts with their breasts exposed, standing with hands set upon the hips. Most have their hair gathered in a single lock that falls down their backs, and many wear a garland around the neck. The large size of the figures is one of their most remarkable attribute, making some of them the largest surviving terracotta statues from the Bronze Age.

Some statues preserve colors (mostly yellow, white, and red) and relief seams that indicate they were originally elaborately colored and dressed. Relying on B. Jones' seminal work on Bronze Age costumes, the authors use Bronze Age comparanda from sculpture, glyptic, and wall paintings to reconstruct possible costumes worn by the larger and smaller statues at Ayia Irini. This is the first ever attempt to approximate the original vivid impression the statues conveyed to their contemporary viewers, not easily appreciated nowadays with their worn clay surfaces.

Paleolithic Research in Anatolia. History, Problems, and Potential
Elif Nurcan Aktaş, Bilkent University

The problem that the topic focuses on is the deficiency of Paleolithic research as a discipline in Turkey. The aim is to interpret the problems, research and answer why Paleolithic research was not developed in the contemporary research history in Turkey. Archaeological studies throughout Turkey generally represents regional and cultural projects which focus on especially the Neolithic, Chalcolithic, Bronze and Iron Ages, Seljuk and Ottoman times and so on. Although there are many places which have extensive materials belonging to the Paleolithic period in Turkey, at the intersection of Asia, Europe and Africa continents, the researches on this period have not developed enough.

Scholars studying on Paleolithic period were too few in Turkey in between 1930s and 1960s. Especially Kilic Kokten and Sevket Aziz Kansu made some Paleolithic and Epi-Paleolithic surveys in a variety of regions in Anatolia, but these surveys were not systematic they were made so as to determine the Paleolithic sites. Some sites around Antalya, for example, revealed interesting and abundant materials while other sites remained uninvestigated. Therefore Paleolithic research was done in a narrow frame. Sevket Aziz Kansu did prehistoric research in the inner part of the Mediterranean region in 1944. In addition to his other investigations in Central and Northern Anatolia, some surveys were carried out in Eastern Anatolia.

Afterwards the Keban Dam Project studies were done by a team from the department of Restoration and Preservation of Historic Monuments at METU (Middle East Technical University), began in 1966 with the involvement of several teams, such as Michigan University Anthropology Department and ?stanbul University Prehistory Department. Investigations demonstrated that the region has housed various communities, from the Paleolithic period to the present. Most of excavations started in these regions were mound excavations and focused on Neolithic as the earliest period. This salvage project ignored materials belonging to Paleolithic period.

Today there is not enough scholar interested in this field apart from few prehistorians. Paleolithic research is rather a recent application in few projects by some universities, but these universities have not cooperated with each other. For

instance, Ankara University Paleoanthropology and Prehistory Departments have disputed with Prehistory Department of ?stanbul University Department. However Paleolithic researches and surveys have not been supported financially by Ministry of Culture General Directorate of Monuments and Museums of Turkey.

What is the problem on this issue? Why Prehistoric Archaeology undeveloped in Turkey? This topic focuses on the answers to these questions.

Identity in Colonial Himera: An Assessment of Nonmetric Dental Variation between Grave Styles

Alexander R. Poston, Reed College, *Britney Kyle*, University of Northern Colorado, and *Laurie J. Reitsema*, University of Georgia

Archaic Himera was an intersection for indigenous Sicilians, Euboean colonizers, and Corinthian-descended Syracusans, among others. This study investigates the relationship between biological ancestry and cultural expression by examining flexed burials and cappuccina graves. In other contexts, flexed burial position is associated with indigenous Sicilian culture, while cappuccina grave style was a late Archaic custom in mainland Greece. We hypothesized no significant biological difference between cappaccina and flexed grave types. Biodistance analyses of 24 nonmetric dental traits were used to identify genetic relatedness between Himeran cappuccina (n=264) and flexed samples (n=19). The Himeran samples were compared with samples from Karystos (n=84, on Euboea) and Corinth (n=43), to see if cappuccina burials are more closely related to individuals from mainland Greece. Pseudo-Mahalanobis' D2 and logistic regression analysis estimated that Himeran cappuccina and flexed samples were more closely related to each other than to Karystos or Corinth. However, low phenotypic diversity among all four groups suggests all are genetically similar. Similarity between the Himeran samples suggests the possibility that biological ancestry was not a primary factor in the Himerans' conception of cultural identity. Alternatively, gene flow between a variety of peoples from throughout the Mediterranean could have created a Himeran population that was a no longer strictly Greek, but rather uniquely Himeran. We venture to contrast this pattern with Classical Athens, where citizens purport discrimination along biological lines to strengthen Athenian identity against other city-states. The difference could, potentially, lend itself to discussions of ethnogenesis in the Greek Mediterranean

Pottery and Pestilence: Funerary Jugs at the Ismenion Hill Cemetery

Estelle Teske, University of Virginia, and *Erika Chu*, University of Virginia

The Thebes Synergasia Excavation Project between Bucknell University and the Ephorate of Antiquities of Boeotia at Ismenion Hill in Thebes, Greece has unearthed an Early Byzantine cemetery of the sixth to seventh century with around 50 graves excavated to date. While the number and age of individuals buried in each grave varies significantly, they are all accompanied by a large number of ceramic vessels, mostly small jugs and cups. Strong evidence of serious illnesses recorded in a high percentage of the diseased population has led specialists to

suggest that the cemetery could be possibly associated with a nearby hospital or other charitable foundation dedicated to the care of the seriously ill.

In this poster, we present the ceramic vessels found in the Early Byzantine cemetery and discuss them in terms of their shape, size, function and origin. In doing so, we combine more standard methods of analysis, such as utilizing typo-chronology and studying clay fabrics, with new visualization tools such as photogrammetry. Our goal is to record in detail the vessels' commonalities and particularities in terms of their manufacture that will allow us to date them more accurately and study them in a wider framework of pottery production and circulation in the Early Byzantine period.

Analyzing the ceramic vessels found in the grave will help us to investigate their exact function in a funerary context and illuminate Byzantine burial practices, in particular the treatment of "special dead", i.e. dead who suffered from serious, highly visible and contagious illnesses, such as the plague and leprosy.

Scanning for Wear on Ancient Base Ring I Juglets: Methodology and Processing
Helen Wong, Brandeis University

In this project, we seek to discover, through the application of 3D scanning technology to five ancient Cypriot Base Ring I (BR I) juglets ("bilbils"), whether such scanning can effectively pick up wear patterns on the surface of the vessels; and if so, to find out whether such patterns offer any insights on the role of BR I juglets in the everyday life or burial customs of the deceased.

This set of BR I juglets came from a 1920/1921 excavation in Egypt at Sedment, a cemetery 70 miles south of Cairo. The excavation was conducted by W. M. Flinders Petrie on the behalf of the British School of Archaeology. However, there has been no significant scholarship ever conducted with a primary focus on the BR I juglets found at the site, and this project seeks to use 3D scanning technologies, accurate to 0.1 millimeters, to pursue evidence on several current theories on why BR I juglets were so ubiquitous at a cemetery that was not particularly wealthy.

One of the most viable theories ties their state of usage to the age of the deceased. The BR I juglets found at the site appear to be more worn when found buried with older individuals, and less worn when buried with younger individuals, with one case of an infant or young child having been buried with a BR I juglet in essentially new condition.

The extreme accuracy that 3D scanning provides would be able to give clear and digitally accessible evidence proving or disproving the hypothesis on the correlation between the age of the deceased and the wear patterns of the BR I juglets buried with them. We also hope that in gaining some understanding of the potential age/wear correlation that we might also discover insights into the role that BR I juglets played in the lives of the ancient deceased.

Roman Amphorae of North Africa: Markers of a Mediterranean Economy
Amanda Dobrov, University of California, Berkeley

This project is centered around the Roman amphorae excavated from the Palatine East Archaeological Project. The site is located on the northeast slope of the Palatine Hill in Rome. The ceramic deposits date from the first century to about the fifth of sixth century CE. I focus on the amphorae produced in North African, specifically those of Tunisian origin. My work is hoping to better understand the geographical location of production sites of these trade vessels.

The results of this project intend to highlight the role played by specific regions with Roman North Africa in the supply of foodstuffs to the urban centers, including northern Tunisia, the Sahel, Tripolitania, and the Kabylie of Algeria, from the early to the late empire.

The project involves the classification of the rim fragments by amphora class, the characterization of their fabric by means of the evaluation of photomicrographs taken with a digital microscope with a view to determining their likely provenience, and their quantification by the estimated vessel equivalents (EVE) technique.

All of this work has been done in close consultation with Dr. Michel Bonifay's 2004 publication, Etudes Sur la Céramique Tardive d'Afrique, Simon Keay's 1984 amphorae handbook, and with the guidance of Dr. J. Theodore Peña.

SESSION 3A: Joint AIA/SCS Colloquium
Material Girls: Gender and Material Culture in the Ancient World

ORGANIZERS: *Mireille M. Lee*, Vanderbilt University, and *Lauren H. Petersen*, University of Delaware

Colloquium Overview Statement

This colloquium explores the dynamic relationships between objects and gender in classical antiquity. Objects are under renewed scrutiny in the humanities. A basic premise of object theory is that objects exist because of, and in relation to, people. People and objects are inseparable. To understand objects is to understand how people made, used, and disposed of them. By focusing on the *longue durée* of objects, it is possible to reconstruct the many social relationships surrounding them, from those who procured the raw materials for their production to the artisans who created them to those who used the objects or transferred them by means of exchange. The meanings of objects change across space and time as they are transferred from person to person. Object theory allows for unique insights into societies and social actors.

Despite the broad range of the papers in this session, they share several common themes. Two of the papers analyze the social and psychological aspects of dress, both garments ("Procne, Philomela, and the Voice of the Peplos") and footwear ("Of Soleae and Self-Fashioning: Roman Women's Shoes from Vindolanda to Sidi Ghrib"). Women's use of weaving implements ("Unveiling Female Feelings for Objects: Deianeira and Her Ὄργανα in Sophocles' *Trachiniai*") and ritual

objects ("Ritual Implements and the Construction of Identity for Roman Women") demonstrates the importance of tools for the construction of feminine identities. The significance of objects in ritual practice is central to two papers ("Binding Male Sexuality: Tactility and Female Autonomy in Ancient Greek Curse Tablets" and "Ritual Implements and the Construction of Identity for Roman Women"). While objects as a means of resistance are central to the final paper ("Butcher Blocks, Vegetable Stands, and Home-Cooked Food: Resisting Gender and Class Constructions in the Roman World"), the notion that women employed objects as a means of constructing and deconstructing identity is fundamental to the panel as a whole.

Procne, Philomela, and the Voice of the Peplos
Stamatia Dova, Hellenic College Holy Cross

This paper examines the role of the peplos (robe) as a signifier of female identity in Sophocles' lost tragedy *Tereus* (ca. 430 B.C.E.) and its reception from Euripides' *Medea* and Demosthenes' *Funeral Oration* to Ovid's *Metamorphoses* and Achilles Tatius' *Leucippe and Clitophon*. According to Sophocles' treatment of the myth, Tereus, king of Thrace and husband of Procne, one of the daughters of Pandion, king of Athens, raped Procne's sister Philomela, cut her tongue, and told his wife that her sister had died. Philomela, however, wove a peplos and sent it to Procne. The robe, embroidered with Tereus' crimes, became the voice of the raped and mutilated young woman. Denouncing the outrage committed by the barbarian king against the two Athenian princesses, the peplos also enabled their *anagnorisis* (recognition of each other) and revenge: they killed Procne's and Tereus' son Itys, cooked his flesh, and served it to his father. In horror, he tried to kill them, but the gods intervened and turned them all into birds—Tereus became a hoopoe, Philomela a swallow, and Procne a nightingale. Praised by Demosthenes (60.28) as a model of honorable Athenian conduct, the revenge of the two sisters may have inspired Medea's infanticide (and evokes her use of the peplos to kill Glauke) in Euripides' *Medea*. Described in a magnificent ekphrasis by Achilles Tatius (5.3.4), Philomela's peplos resonates with the trauma of the voiceless victim; not only does it implicitly lament the garment's unfulfilled social function of embellishment and marital adornment, but it also tells the story of a woman who, though deprived of physical and social voice, managed to break the silence.

Unveiling Female Feelings for Objects: Deianeira and Her Ὄργανα in Sophocles' *Trachiniai*
Anne-Sophie Noel, Georgetown University

After learning of the death of Heracles consumed by the poisoned robe, Deianeira rushes inside the palace to kill herself. But before entering the *thalamos*, she bids farewell to one or several object(s) named by a generic noun (ὄργανα, "instrument" or "tool" [904–6]). This pathetic expression of affection toward what seem to be familiar object(s) has no parallel in narratives of a character's death in tragic drama. Why does the messenger mention such a detail? What are the ὄργανα that provoke Deianeira's tears? How can we interpret the stress put on the

haptic contact (ψαύσειεν)? Do the tears express affection or resentment toward objects that might have been used in preparing the poisoned robe (cf. *scholion ad loc.*)? What could have been the audience's response to this emotional reaction to material objects? I address these questions, combining philological and literary arguments with archaeological ones and drawing on the theory of "object biography."

Discussing the ancient commentaries on line 905, I argue that the first scholiast's suggestion—for example, ὄργανα means "weaving tools"—may be supported by lexical arguments as well as recent archaeological finds: as demonstrated by Foxhall, weaving tools, such as loomweights, were personalized by women—as such, they were infused with great affective value. As gender-determined objects, they would have been particularly meaningful in a play where a woman destroys her household through the unconscious but fatal manipulation of a robe.

Thus, the relative abstruseness of Sophocles' wording might have been an obvious cue for his audience. By listing the different meanings of ψαύειν in tragic dramas, I shed light on the ambivalent haptic contact it may imply (violent as well as loving).

Binding Male Sexuality: Tactility and Female Autonomy in Ancient Greek Curse Tablets

Teresa Yates, University of California, Irvine

Curse tablets served as a ritual outlet for private concerns and thereby provide a unique perspective of the intimate anxieties of the average Greek citizen. In particular, they gave women in a dire situation an opportunity for a private, personal mediation with their world. The constructed and fictional empowerment given to women in certain literary sources more fully emerges in these ritual artifacts, which presented practitioners with an opportunity to assert control over their domestic and social statuses.

Two of the extant curse tablets, the so-called Pella tablet and DT78, were created by women; ritual custom dictated that these *katadesmoi* be bound and buried to ensure both ritual efficacy and physical unassailability. Upon execution, these two tablets sought to limit a man's sexual and marital activity with any woman but themselves and by extension to ensure their own marital status and place within society. I argue that the production and implementation of these two tablets exhibit a rare, undiluted picture of female autonomy. These *katadesmoi* are pieces of tactile handiwork, allowing the female authors to channel their agency in a different way than the women of the literary record. The tactile element represents a close connection between creator and object and mirrors the physicality desired in the outcome of the ritual. For example, the authoress of the Pella Tablet expects to be able to dig up (*anorussō*) the tablet when she wishes (*hopoka*); this shows a unique instance of a practitioner confidently controlling both the implementation and future outcome of her ritual act. This paper investigates why these material artifacts allow for a more complete channeling of female autonomy through their tactile creation and implementation, and how these tablets present an unadulterated image of women seeking to protect their own sexual and reproductive capacities.

Of *Soleae* and Self-Fashioning: Roman Women's Shoes from Vindolanda to Sidi Ghrib
Hérica Valladares, University of North Carolina at Chapel Hill

In antiquity, as in the contemporary world, shoes were a key element in the visual language of self-presentation and self-fashioning. As markers of age, gender, status, and identity, shoes eloquently communicated who a person was and, in some cases, who that person wished to be. For instance, an elegant black leather woman's sandal found in the praetorium in Vindolanda not only indicates the presence of women at this Roman military fort but also tells us something about its owner: first and foremost that she was someone who could afford this luxury item. But this sole surviving sandal also suggests that, for the woman who wore it, the dictates of Roman fashion were (at least on certain occasions) more important than considerations regarding the weather and environment of the northernmost regions of Britannia. Clearly, to be and appear Roman while living in the *limes* sometimes required donning rather impractical footwear.

While such examples of actual Roman women's shoes offer invaluable information about the material aspects of everyday life, visual representations of open-toed thong sandals (*soleae*) on several private and public monuments reveal these objects' greater symbolic valence and their role in constructing an imperial ideal of femininity. As the objects depicted on a second-century funerary altar from Ortona in southwestern Italy and a fifth-century mosaic from Sidi Ghrib in Tunisia demonstrate, shoes together with a set of other exclusively feminine items were often used as metonymies in a visual, gendered discourse of praise. Since Roman women usually lacked the traditional titles and accoutrements of public achievement, items designed for self-care (*cultus*) became emblems of these individuals' physical loveliness and refinement—characteristics that were, in turn, seen as exterior signs of women's inner virtues.

Thus, by considering actual shoes and the representation of these objects in Roman art, this paper explores the ways in which such a seemingly ordinary item of clothing became a powerful, ubiquitous symbol of feminine virtue from Rome to the farthest provinces of the empire.

Ritual Implements and the Construction of Identity for Roman Women
Anne Truetzel, Princeton University

This paper examines the role of the use and display of ritual implements in the construction of identity by and for Roman women. It draws together current strands of scholarship on Roman women's religious activity and the importance of dress and visual insignia in communicating gender and status. Using a combination of literary sources (Polybius, Cicero, Livy, Pliny, and Plutarch) and material evidence (honorific statues, wall paintings, coins), I analyze women's use of specialized ritual objects in Republican and Early Imperial Rome, in the hopes of contributing to our understanding both of Roman women as participants in religious activity and of the relationship between objects and identity.

Of particular interest are instances when this relationship is not straightforward. For example, in religious festivals during the second to first century B.C.E.,

elite Roman *matronae* used gold and silver religious paraphernalia that were then passed down as family heirlooms to female descendants (e.g., Pol. 31.26–8). These objects signaled the women's religious roles as *matronae*, their elevated position even within this elite network, and continuity of female religious participation across generations. Yet there are indications that these rich implements were also sometimes spoils of war, brought back by victorious Roman generals or awarded to individual soldiers for exemplary *virtus* ("manliness"). Some were even plundered from non-Roman women who had previously used them in their own religious rituals (e.g., Cic., *Verr.* 2.4.47). The objects retained associations with their origins even as they were deployed in a new context by the generals' and soldiers' female relatives, implicating the Roman matrons in the "male" world of warfare while also asserting their own female religious agency. In exploring this case and others like it, I demonstrate the complex relationship between ritual objects and constructions of gender, status, and ethnicity.

Butcher Blocks, Vegetable Stands, and Home-Cooked Food: Resisting Gender and Class Constructions in the Roman World
Mira Green, University of Washington

There has been a recent flurry of research that explores how tools and object/human interactions affected daily life in the Roman world. Other scholars have also focused on how architecture, wall paintings, and landscapes created and maintained social interactions and gender performances. My paper builds on these studies, but it investigates the literary and visual expressions of resistance to elite culture in images of work involving food preparation and production.

Although there have been important studies on work, craftsmen, and freed individuals, none has considered how visual representations of commercial food production are in conversation with similar ones found in domestic settings. Notably, work reliefs focus on the mercantile aspect of food production while also reinterpreting the intimate association between person, tool, and audience that is seen in domestic food preparation. Through these elements, I contend that reliefs of food vendors and butchers refigure the tacit cues that are inherent in the design of domestic cooking utensils and fixtures, thus creating a visual language of resistance to elite culture, and mastery. Additionally, literary representations of cooking and kitchen tools (once the thick patina of elite authors' moralizing agenda or sexual innuendo is scrubbed off) reveal instances when slaves and ordinary Romans could momentarily upend or (at least) muddy Roman social hierarchies and gender expectations (Apul., *Met*. 2.10; *ad Mortem* 6881, 101–16; Ov., *Met*. 632–50). Thus, objects associated with food preparation and production became subtle yet powerful tools of resistance to elite Roman culture.

SESSION 3B: 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

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 codevelopment of particular economic and political systems and to recognize the fourth to 14th century 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.

Whither Survey Archaeology in Byzantine Turkey?
Günder Varinlioğlu, Mimar Sinan Fine Arts University

Surveys, or landscape archaeology, are a latecomer to Turkish archaeology. To this day, archaeological survey is widely considered as a reconnaissance exploration whose main purpose is to prepare an inventory of sites, among which the most promising ones would be selected for excavations. In addition, surveys contribute to the "cultural inventory" of Byzantine heritage needed to guide development plans and heritage conservation. Despite the seemingly lower status of survey archaeology, a rising number of Byzantine scholars carry out regional and site-based survey projects across Turkey. Their publications in the past decade have contributed significantly to the understanding of Byzantine habitation, land use, and rural landscape for regions where textual and even epigraphic evidence are nonexistent.

However, the common denominator of most projects is the existence of settlements with standing architectural remains, including wall paintings, mosaics, sculpture, and inscriptions. This may be partially explained by the academic curricula and tradition, which follow an approach established in the first half of the 20th century: Unlike their colleagues specializing in earlier time periods, Byzantine archaeologists in Turkey are predominantly educated in art history departments and are often unfamiliar with archaeological theory and method. Perhaps as a result of this tradition, large-scale, intensive surveys are rare in the practice of Byzantine archaeology in Turkey. This is exacerbated by the legislations guiding fieldwork practices and permits, which limit diachronic surveys and the collection of artifacts. The survey methodology has to be regularly modified in response to these challenges.

For a Byzantine landscape archaeologist working in Turkey, a dialogue on data collecting, sharing, and dissemination does not exist yet. Traditional publications

continue to be the only means to disseminate the data, while raw data often remain inaccessible to researchers interested in diachronic and multiregional, comparative studies. The Bo?sak Archaeological Survey (BOGA; 2010–present), the case study of this paper, is not immune to the aforementioned criticism. Although it has evolved into a multidisciplinary, diachronic landscape archaeology survey, its beginnings lie in site-based, architectural survey, in which extensive and intensive pedestrian survey was carried out sporadically and less systematically than anticipated. This paper discusses the legislative, financial, and logistical challenges faced by this Byzantine settlement and landscape survey and how this has affected data collection and dissemination. BOGA's recent joint effort with the neighboring Lower Göksu Archaeological Salvage Survey Project concerns the development of a common database and GIS platform to facilitate comparative, diachronic analysis across a larger region.

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 effectively incorporate the complex data emanating from such studies.

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 3C: Colloquium
Roman Villas and Their Afterlife in Sicily and Malta

ORGANIZER: *Davide Tanasi*, University of South Florida, and *Michael Decker*, University of South Florida

Colloquium Overview Statement

This session aims to investigate the role of the Roman villas in settling patterns and land-tenure dynamics throughout the Imperial period in Sicily and in the Maltese Archipelago. In particular, it analyzes the afterlife of those rural complexes during the Early Middle Ages, when they experienced significant changes in their organization and lost their residential character, which was replaced by new functions. The abundance of new unpublished data from excavations and research on the most significant sites of this kind in Sicily and Malta, together with the application of cutting-edge scientific and technological methods for documentation and interpretation, have significantly advanced our knowledge on such an important historical and archaeological theme for ancient Sicily and Malta. This session specifically includes papers on cases studies of Roman villas from the Republican to the Imperial period and their afterlife in the Early Middle Ages in south-central Sicily and in the Maltese Archipelago. The first paper deals with the ways in which the villa is imagined in Roman literature and Roman law of the Late Republic on. The second deals with a tentative overall reappraisal of the Roman villa of Durrueli at Realmonte on the basis of the old available data reinterpreted through the lens of the 3D digital imaging. The third presents new data from a decade of excavations at the Villa del Casale of Piazza Armerina, one of the most prominent Roman imperial villas in the Mediterranean. The fourth paper presents an update of recent excavations (2015–2016) at the Roman villa of Gerace near Enna, an estate granary violently destroyed in 361/3 C.E. and then succeeded on an adjacent site by a compact Roman villa in the late fourth century. The fifth paper presents an update on two Roman villas in the territory of Siracusa, the Borgellusa (Avola) and Caddeddi (Noto) villas, taking stock of very fragmentary evidence emerging from discontinuous past excavations in the light of more recent explorations. The sixth paper deals with unpublished data on the Roman villa of Orto Mosaico (Ragusa), a puzzling complex that was never completed. The seventh paper contributes to the general discussion on Sicilian villas, presenting the contemporaneous evidence of the Maltese Archipelago.

"Where I Like Myself Most": The Roman Villa in the Roman Imagination
Sarah Culpepper Stroup, University of Washington

In 70 B.C.E., Cicero was charged with the prosecution of Caius Verres, governor of Sicily from 73–71, on the charge of extortion of Greek works of art from homes and villas throughout Sicily. The Actio Prima was so successful that the defendant fled Rome the next day. Not to be deterred by the lack of a forensic audience, Cicero published his planned Actio Secunda, creating the illusion that the trial of extortion had continued and that Verres had been present for the whole thing. In this departure from established oratorical practice, Cicero did three things: (1) he transformed the plundered Greek wealth of Sicily's villas into a deeply Roman concern; (2) he conceived of the personal literary project that would define his final years; and (3) he made the villa the lasting centerpiece of Roman literary, political, and artistic imagination. In this paper, I focus on the last of these points—most specifically the ways in which the villa, a space that cannot be considered apart from its relationship to the city, is imagined in Roman literature and Roman law of the Late Republic on. For while the Middle Republic has the rustic, utilitarian villa of Cato's *de Agri Cultura*—a space worked for ideological and philosophical reasons—the Late Republic and Early Empire see the rise of increasingly luxurious and increasingly intellectually centralized villas. Whereas Cicero's villas (where, he confides to Atticus, he "likes himself most") offer intellectual retreat from the dangers of a crumbling republic, similar villas would later offer refuge from slaughter in the period of the proscriptions. When Varro and Virgil lose their land during the confiscations, the "textual villa" becomes a symbol of longing and an allegory for the state under Augustus. As the empire progresses, both the literary (Pliny, *Letters*, and Lucian, *The Hall*) and archaeological record attest to a Roman villa that has become an increasingly crucial, and increasingly fantastical, locus of Roman identity, escape, and imagination.

The Roman Villa of Realmonte: Old Data and New Perspectives
Michael Decker, University of South Florida, and *Davide Tanasi*, University of South Florida

The villa of Realmonte is located on the western coast of Sicily, by the mouth of the River Cottone, about 15 km west of Agrigento. Discovered and briefly explored in 1908, this unique example of *villa maritima* in Sicily was partly excavated in 1979 and 1981 by a team from the University of Tsukuba (Japan). The excavation uncovered about 1,700 m² of the complex. However, after the end of the excavation just a very preliminary report was published. The uncovered part of the villa, corresponding approximately to the half of it located south of the highway SP 68 and by the sea, comprises a residential block with several reception rooms that open onto a courtyard surrounded by a colonnade. On the north side of the courtyard is the entrance of the reception hall of the landlord. To the west of the residential area is the bathhouse with large dressing rooms decorated with two-tone black-and-white mosaic depicting Neptune on a hippocampus surrounded by two dolphins and Scylla in the act of brandishing a rudder. The use of marble for wall facings and floors points to a high social rank for the landlord. Just on the basis of the style

of the mosaics of Neptune and Scylla the villa has been dated between the first and the second century C.E. In 2014, a three-year project was undertaken by a partnership between Arcadia University and the Superintendence of Agrigento, as a preparatory research effort for a future excavation. The main goal was to shed light on some important open issues related to the chronology and spatial development of the complex. In fact, the only dating currently available is based on historical considerations of the artistic style of the two-colored mosaics of the dressing rooms. Furthermore, a preliminary direct examination of several stratigraphic units of the walls has revealed a subsequent stage of use of the complex, possibly dated to the Early Medieval period. The production of virtual replicas in 3D digital imaging of problematic parts of the villa has allowed to refine the interpretation of certain architectural stratigraphic units and to generate a new set of technical drawings providing new data to reconsider the nature of the villa itself. In 2017, a three-year agreement to carry out a new series of researches and studies at the Roman villa of Realmonte was signed with the University of South Florida.

The Villa del Casale of Piazza Armerina in Light of New Discoveries (2004–2014)

Patrizio Pensabene, Universitá di Roma–La Sapienza, and *Paolo Barresi*, Universitá Kore di Enna

The need for new excavation campaigns came out of some questions left unresolved after the first works of Gino V. Gentili and new questions that arose after the publication of the volumes by Andrea Carandini and Roger Wilson in 1983. Among the open issues particularly relevant were to define the identity of the owner of the villa, to identify the extension of the complex and the location of the workers' district, and to clarify the relationship of the villa with the Roman road network. The latest excavations by Ernesto De Miro in the 1980s could not resolve any of those questions but raised another issue: the chronology of the first villa (the so-called *villa rustica*), with a new phase of late third century C.E., before the Constantinian villa, and the hypothesis of a late rebuilding of the south part in the late fourth century C.E. Our excavations, anyway, shed new light on the life of the villa in the Middle Ages, with the discovery of a new part of the Islamic and Norman settlement that seems to be more of a town than a simple village casually set on the ruins. With our latest research, we could also give a partial answer to the question about the location of the storerooms of the villa, which were built on the west side of the large courtyard before the main triple monumental arch on the entrance. Furthermore, we can provide a new interpretation for the second phase of the villa in the late fourth century, which in our opinion is connected with the style of triconch mosaics. On the other side, the new discovery of a new bath complex with a small marble column porch on its east side, near the southern end of the storerooms closing the west side of the villa, has brought up new open issues. We have some hypotheses about the relationship with the other bath complex on the north and about the people who frequented it, but those hypotheses need further support from the fieldwork. The questions about the owner of the villa are still unresolved, but we are confident that in the future they will be answered.

Philippianus and His Rural Estate: Recent Excavations at Gerace near Enna

Roger J.A. Wilson, University of British Columbia

The paper presents an update of recent excavations (2015–2017) at this site. An estate granary, 50 m long, built ca. 300/50 C.E. but violently destroyed, probably by earthquake in 361/3 C.E., was succeeded on an adjacent site by a compact Roman villa in the late fourth century. It was equipped with some geometric mosaics but appears to have been never finished. Ubiquitous tile stamps (using 11 different stamp types simultaneously) indicate that the estate owner at that time was one Philippianus. The villa was nevertheless occupied for about 100 years; two rooms added later were used as a grain store, carbonized when fire took hold of the villa ca. 500 C.E. Farther up the hill a substantial bathhouse, perhaps also built ca. 400 C.E., was found in 2016, decorated with polychrome marble on the walls and geometric mosaics on the floors, but the structure was systematically stripped of its building materials (and the floors smashed to retrieve bricks) when the baths were decommissioned in the fifth century—an interesting example of Roman recycling. Whether the baths were part of another villa or an independent structure is currently unknown. In 2017 part of the *frigidarium* of these baths was also uncovered, together with one of its two associated cold-water pools. The mosaic of the *frigidarium* is so far intact; it has a unique design of tangent overlapping hexagons. A mosaic inscription ran around all four sides of the room, of which two have so far been completely uncovered. It mentions Philiippianus and another member of his family, Asclepiades. That the former also built these baths, ca. 375/80 C.E., is made explicit by the presence of his name in monogram form in one of the mosaic roundels. A small, low-status village replaced the elite buildings in the sixth century.

Roman Villas in the Territory of Siracusa: An Update

Rosa Lanteri, Polo regionale di Siracusa per i siti e i musei archeologici

In the territory of Syracuse, the villa of Borgellusa (Avola), dated to between the end of the first century B.C.E. and the first century C.E., represents the more important monument for this part of territory in the Early Imperial period. Investigated in 1983, the Borgellusa villa comprises a large square courtyard surrounded by a colonnade and with a polylobed vat located at the center of it. On the southeastern side, a series of rooms with a floors paved in *opus signinum* with reticulated patterns in white color were largely modified in the Late Imperial period before being abandoned because of a destructive fire. Several other, smaller rooms connected with the villa were also discovered west of the modern path passing through the villa. The lack of recent research and studies have caused a serious marginalization of this site, nowadays neglected. The case of the Roman villa of Caddeddi near Noto is rather different. Famous for its splendid mosaics, destroyed and abandoned in the mid fifth century C.E., it has been well known for almost half a century. However, in the past 50 years, there have been many new discoveries in the territory of Siracusa that have only rarely been subjects of systematic archaeological excavations. Most often they are simply indexed by surface finds collected during archaeological surveys and almost completely unpublished. With this contribution we intend to take stock of knowledge acquired to date on

the Roman villas identified in the territory of Syracuse, dated between the Late Republican and Late Antique periods (first century B.C.E. to fifth century C.E.). It deals with suburban and rural villas, for which their location in the landscape, their distribution within the territory relative to the ancient roads, their connection with the coast via rivers, and their relationship with the sea are examined. Finally, through the examination of commissioned and completed works (such as mosaic floors) we try to understand the personality of the owners, their taste, their culture, and their relationship with the contemporary artistic expressions of the Mediterranean.

A "Ghost" Villa Without a Dominus: The Structure of the "Orto Mosaico" (Ragusa)
Giovanni Di Stefano, Museo regionale di Kamarina

This paper deals with mostly unpublished data from four excavation seasons (1988, 1990, 1996, and 2001) at the Roman villa of Orto Mosaico in the valley of the Irminio River (Giarratana, Ragusa). The villa, articulated on a system of terraces and datable to the beginning of the Severan period, after several phases of construction, was never completed and was abandoned at the end of the third or beginning of the fourth century C.E. A central courtyard (30 x 20 m) and three pavilions (to the north 20 x 30 m; to the west and east 10 x 30 m), were uncovered, together with a large audience hall in the northern sector.

All the structures on the northern side are made with *opus incertum* of volcanic rock, and the floors of all the rooms excavated were paved with mosaics with geometric or flowery motifs. A comparison between this villa and another, similar site in the middle valley of the Irminio River is drawn to better interpret the nature of the villa of Orto Mosaico. In fact, between 1988 and 1991 another villa with similar features, dated to Middle Imperial period, was discovered in Contrada Margi. A portion of 1,000 m² was uncovered, revealing a courtyard surrounded by small rooms, among which were a kitchen and rooms equipped with *suspensurae*, and large storage areas on the northeastern side. Stables and a kiln related to the main complex were also identified. This plan of this villa seems to result from the progressive addition of structures around an earlier core. On the basis of the numismatic evidence, the later phases should be dated to the Severan period. The analytical study of the evidence from Orto Mosaico and the reappraisal of the data produced by the excavation at the villa of Contrada Margi contribute to shed light on the land tenure and land administration protocol applied in the territory of Ragusa during the Middle to Late Imperial period. We hope that will allow us to better interpret the puzzling case of a "ghost" villa, that of Orto Mosaico, without a landlord that ever inhabited it.

Roman Villas in Malta and their Whereabouts
David Cardona, Heritage Malta

Set in the centre of the Mediterranean and used as a stepping stone and commanding outpost between North Africa and Italy, the Maltese Islands have been passed through the hands of various peoples. Among these, the four centuries of

occupation by the Phoenician and Punic merchants and the seven centuries of Roman occupation that followed after 218 B.C.E. have left their indelible mark on the way the islands' culture and, in some cases, physical characteristics were shaped and transformed. Archaeologically, the unequivocal footprint of these cultures can be best discerned from the remains of rural villas and houses which, although numerous and with a few exceptions, have somehow lacked the proper scientific research required to unleash their full potential. This contribution will start by giving an overview of the main known villa sites. These sites include fairly well-known sites like San Pawl Milqi, Zejtun, Ta' Kaccatura, Ramla l-Hamra and the thermal complex at Ghajn Tuffieha but will also include lesser known or newly discovered sites like Wied il-Ghasel. The study will then attempt to give a preliminary investigation and interpretation of the relationship of these sites with the surrounding landscape and other nearby sites. In particular, this paper will try to investigate how villas and other similar structures of the period affected, or were affected by, features in the landscape, geology as well as other sites around them. Is the villa the only footprint that we can now trace in the landscape or can we detect its influence on other features around it like field boundaries, re-landscaping and other archaeological features like tombs? This study does not intended to offer conclusive interpretation but rather aims to fuel further studies that look at the forces that influenced the original choice of location, how the presence of these villas has affected the landscape around them and, ultimately, whether certain patterns can be identified, like the conglomeration of certain features, which may help in identifying sites that have so far remained unknown.

SESSION 3D: Colloquium
Cutting-Edge Approaches to Archaeological Research on Ancient Sicily

ORGANIZERS: *Robert H. Tykot*, University of South Florida, and *Davide Tanasi*, University of South Florida

Colloquium Overview Statement

The 21st century has seen approaches to archaeological research increasingly involving a variety of scientific and technological methods. This is especially relevant in Sicily (Italy), where in recent years such approaches have led to interdisciplinary efforts to address research questions involving many different archaeological materials (obsidian and other lithics, ceramics, metals, glass, human remains, fauna and flora), sites (residential, ritual, burial), and time periods (early occupation through the Neolithic, Bronze Age, Iron Age, and even Byzantine). The data and interpretations generated by these cutting-edge approaches have notably advanced our understanding of ancient Sicily and illustrate the importance of continuing such modern approaches in modern archaeology.

This session specifically includes papers on a variety of methods, materials, and sites in Sicily representing a range of time periods. The first is a large-scale study of obsidian sourcing and trade in and near Sicily, from the Neolithic period through the Bronze Age, involving elemental analysis with a nondestructive portable XRF

spectrometer. The second is on the contextualization of obsidian blade artifacts and showing changes from the Neolithic to Chalcolithic periods based on techno-typological analysis. The third takes an innovate approach to the chronological assignment of ceramics, in particular idols from Milena, based on the trace element identification of the clay sources used in different periods. The fourth uses the development of a large-scale database of Bronze Age ceramic petrographic features from many different sites in Sicily and the Aeolian Islands to address organization for the increased circulation networks of this period. The fifth involves three-dimensional visualization modeling of the architecture and artifacts in the archaeological area of Paliké, an archaic sanctuary with hot springs, for both archival purposes and informing a broad audience. The sixth uses three-dimensional scanning and digital photogrammetry of 30 Greek statues in the Paolo Orsi museum of Siracusa to make them available for educational purposes and to the public with augmented reality features. The seventh takes a multimethod nondestructive analytical approach to identify the sources and pigments used and the technological development for Late Roman and Byzantine glass from the catacombs of St. Lucy in Siracusa and the St. Agata la Vetere church in Catania. The eighth incorporates satellite data with ground-based geodetic measurements of nine sites in Sicily to address archaeoastronomical alignments and make comparisons with studies from the 19th and 20th centuries.

Reassessing the Acquisition and Distribution of Obsidian in Prehistoric Sicily

Robert H. Tykot, University of South Florida, and *Andrea Vianello*, University of South Florida

Over the last decade, a tremendous number of archaeological obsidian artifacts from sites in Sicily have been chemically analyzed to determine their geological origins. This has revolutionized our database for addressing issues about the acquisition and distribution of obsidian in Neolithic to Bronze Age Sicily, following two decades in which no analytical studies had been done. Analyses of nearly 4,500 artifacts have been conducted by the authors (>3,100), and by L. Pappalardo and colleagues (>1,300) at CNR Catania. Our study involves the use of a portable, nondestructive X-ray fluorescence spectrometer, which allows analyses to be conducted rapidly within museums and storage facilities, and with the overall intention of analyzing sites throughout Sicily and representing the Early Neolithic through Bronze Age (ca. 6000–1500 BC). Thirty or more artifacts were analyzed from each of nearly 30 different sites, assigning all but one to specific subsources on Lipari (Aeolian Islands, northeast Sicily: Gabellotto Gorge, Canneto Dentro) or Pantelleria (southwest of Sicily: Balata dei Turchi, Lago di Venere) and enabling statistical comparisons over time and space.

Our presentation at the 115th Annual Meeting of the AIA (Chicago, 2014) was based on results for obsidian artifacts from sites in southeast Sicily, which were dominated by obsidian from Lipari, specifically the Gabellotto outcrops. The 1,500+ artifacts tested since then—the focus of this presentation—come from other parts of Sicily, and the Egati and other islands. In central and western Sicily, all but a few of the 25 sites tested have a mixture of Lipari and Pantelleria obsidian artifacts, while one artifact has been identified as coming from Monte Arci (Sardinia).

For 25 sites in eastern Sicily, obsidian from Pantelleria has been identified at only two. Surprisingly, Pantelleria obsidian dominates the assemblage at just one west coast site and at one well-inland site. This strongly supports our identification of Lipari as a key part of the prehistoric trade and transport system in the central Mediterranean. Clearly, obsidian from Lipari initially arrived in Sicily by boat, probably at many different places along the extensive coastal shores; the obsidian then must have traveled overland to reach many inland sites. Maritime transport from Pantelleria, however, is likely to have been less frequent, perhaps because of its greater distance from the nearest point in Sicily (ca. 100 km) and its apparent absence of settlers during the Neolithic.

Sicilian Obsidian Reduction as Performance: Changing Value Regimes at the Neolithic-Chalcolithic Transition

Kyle P. Freund, Indian River State College, *Robert H. Tykot*, University of South Florida, and *Andrea Vianello*, University of South Florida

This presentation explores the Neolithic-Chalcolithic transition in Sicilian pre-history and contextualizes the interplay between the procurement of obsidian raw materials and their consequent reduction and use, in turn highlighting long-term trends in lithic exploitation from the Neolithic through Chalcolithic eras. By combining obsidian sourcing by means of X-ray fluorescence (XRF) spectrometry with techno-typological analysis of 728 artifacts from 16 sites, this paper discusses how and where obsidian was distributed from geological sources on the islands of Lipari and Pantelleria. While Pantelleria obsidian was present mostly in small quantities in western and south-central Sicily, Lipari obsidian was of much greater importance. Despite differences in the color and physical properties of these raw materials, there is a remarkable continuity through time in the use of both Lipari and Pantelleria obsidians to produce pressure-flaked blades, likely for a range of tasks related to body modification, including hair cutting, shaving, scarification, tattooing, and piercing.

This paper in particular highlights how long-standing obsidian exchange spheres remained intact in Sicily from the Neolithic to the Chalcolithic in the face of wider technological and social changes taking place throughout the rest of the central Mediterranean. It is further shown that the production of Chalcolithic blades differs from earlier time periods, likely related to a broader shift in the social and symbolic role of these raw materials in that society. Based on comparisons of the widths of Chalcolithic blades to those of previous periods (i.e., the Neolithic), this paper argues that Chalcolithic blades were produced by using a short crutch from a sitting position, while a long crutch was used from a standing position to produce distinctively wide pressure blades during the Neolithic. We further argue that the actions surrounding the production of Chalcolithic blades were far less performative and involved a range of motions likely enacted in less conspicuous social contexts. The implications of such conclusions are discussed.

Identification of Chronological Phases Through Technological Change in Sicily: The Case of Prehistoric Ceramics from Milena

Andrea Vianello, University of South Florida, and *Robert H. Tykot*, University of South Florida

A study of Neolithic to Bronze Age ceramics found in caves near Serra del Palco, Milena, Sicily, using a nondestructive, portable XRF, has allowed us to define broadly the local chronological phases through ceramic composition, rather than just decorative style or typological studies. Key chemical trace elements were measured for about 100 vessels, representing all known ceramic classes in the area of our study, and then grouped through principal component analysis of the elemental data. The methodology for this pilot study works well in a situation where there seems to have been relatively few potters at work and with few imports. We selected samples for each type, with the sequence spanning from the Early Neolithic to Late Bronze Age, and carried out multiple analyses on each sample to address potential heterogeneity. The stratigraphic sequence from the caves is very precise, with no disturbed layers, although frequentation appears reduced during the Bronze Age. This provides a fairly comprehensive sequence for Neolithic ceramic classes and a very good but probably not complete result for Bronze Age ceramics. The advantages of this analytical methodology are the compiling of a chronology based on technological changes (preliminary data suggest six local groups out of 15 classes), which can be more significant than subtle changes in decoration or shape, and the ability to assign undecorated or undiagnostic potsherds to a technological class. The study includes four integral ceramic idols from a cave (Grotta IV di Monte Grande), which are both undecorated and were found in a near-surface context uncertain for dating. It was not possible to sample them destructively, nor was it possible to assign them to a typologically distinct ceramics class. The proposed Middle Neolithic date was based simply using the most ancient layer at that level. This research provides therefore another way to assign the idols to a ceramic class and by dating materials in context from that class provides a probable date for the idols. Our analytical work shows that the composition of the idols matches a specific technological class of ceramics and may be assigned to a specific class of local ceramics. The ceramic record in Milena proves to be significant in understanding the Sicilian Neolithic thanks to its complete ceramic sequences, largely in naturally sealed archaeological contexts.

Atlas of Bronze Age Pottery from Sicily: Petrographic Classification of the Fabrics

Sara T. Levi, Hunter College, and *Valentina Cannavò*, University of Modena and Reggio Emilia

Sicily, with the Aeolian Islands, holds the record of hosting the first systematic archaeometric study of prehistoric pottery in Italy (J. Williams, 1960s). Since then this interdisciplinary approach has expanded and become a common practice. Nevertheless, there is still a great dispersion on the publications and a certain discontinuity in the methodology. In order to make more accessible this plentiful information we are collecting and standardizing in a Fabrics Atlas the petrographic composition of the prehistoric and protohistoric pottery in the central

Mediterranean, an interdisciplinary project of Modena University, Department of Chemical and Geological Sciences, in collaboration with Daniele Brunelli and Andrea Di Renzoni. We present here the state of the art for the Aeolian Islands and Sicily during the Bronze Age, based on nearly 700 samples from more than 20 sites.

In close collaboration with *soprintendenze*, museums, universities and archaeological teams, the samples were selected according to their archaeological contexts and typological/functional characteristics after a careful evaluation and preliminary classification of the finds. In some cases an extensive macroscopic investigation and classification of the entire assemblage was performed before and during the selection process. The fabrics are defined with petrography because we focus mainly on the typical indigenous coarse impasto ware characterized by abundant and large clasts. Often the clasts are added by the potters during the paste preparation, but sometimes they can be naturally present in the clay. Our classification tries to merge minor differences and to separate what appears to be a deliberate choice of the potter or a result of a different availability of raw materials, according to the geological environment. In our classificatory system at a more general level there are the groups, linked to geological/lithological environments (effusive, intrusive, sedimentary, metamorphic). In the frame of the groups, the fabrics are defined according to their main components (predominant, dominant, and, in some cases, frequent clasts). Other characteristics, such as minor components, size and abundance of clasts, and the matrix, are also considered. The Bronze Age is a crucial phase for pottery production, with major innovations such as the introduction of the wheel. The proposed new general survey and classification clearly illustrate the distribution of the fabrics and their production area and provide a tool to discuss social, cultural, and technological aspects (chronological and functional trends, raw materials and paste preparation, circulation networks, social organization of production, stylistic and technological interactions) in Sicily and the Aeolian Islands.

Application of New Technologies for the Study and Promotion of the Archaeological Area of Paliké (Mineo, Sicily)

Ivana Vacirca, Independent Researcher

Rocchicella is a basaltic hill located in the Margi River valley, south of the plain of Catania in eastern Sicily. The area was known in antiquity for a group of water springs characterized by a geological phenomenon of "boiling waters," with emanations of carbon dioxide, and that was associated with the veneration of deities (the divine brothers, the Palikoi). The site was considered the most venerable sanctuary of indigenous people of eastern Sicily. The earliest architectural arrangement of the area dates to the Archaic period, the seventh century B.C.E. Around the fifth century B.C.E., archaic structures were cut to achieve the new building. The monumental settlement of the area consisted in the construction of a *hestiaterion* and two stoas (B and FA).

This paper discusses new perspectives on using virtual technologies in archaeological analysis, from the interpretative phase to the enhancement of the most characteristic elements of the site. The integration of different technological tools enables new types of communication that are more efficient and comprehensive.

In this particular case, we focus on three-dimensional modeling of some artifacts and some parts of the main building in the archaeological site, thus allowing us to have a more precise visualization of the original form. When possible, the virtual reconstruction has been enhanced by the support of data from chemical analysis, carried out on samples taken during excavation. This kind of integration could be used for the rendering of architectonic structures. Digital three-dimensional models have been obtained to allow better communication, broadening the use to internet users. It is also a means of study and analysis, as it lets us focus on parts and details otherwise not always noticeable when observing the original. The whole models form a digital archive accessible through time using various technologies, allowing more complete and efficient access to data.

Three-Dimensional Digital Imaging for Public Outreach of Statuary of Greek Siracusa

Davide Tanasi, University of South Florida

Archaeological museums are often perceived as repositories of relics, entrusted to preserve ancient material culture in perpetuity but at the same time committed to making it accessible. The fear of deterioration often denies access or imposes limits on the interactions between visitors and artifacts. This contribution presents the result of a project that aimed to improve digital visibility and provide virtual accessibility to the collection of Greek statuary of Siracusa, held in the Archaeological Museum "Paolo Orsi" of Siracusa. Between 2013 and 2014, 30 statues were virtualized via three-dimensional scanning and digital photogrammetry, including some masterpieces such as the Landolina Venus, the Asklepios from Castello Maniace, the Goddess of Grammichele, the statue of Priapus, the so-called Fisherman, and several others.

The digital models were shared with the public using Sketchfab and the augmented reality app Augment. It is clear that digital renderings cannot replace real objects. Though they lack an existence in the real world, they make up for it by being available for experimentation and manipulation. In order to overcome the obvious limitations on tactile interaction with digital media, an alternative system was used, employing realistic three-dimensional printed copies and haptic devices to afford the participation of members of the public with visual impairments. To validate the sensorial experience of interacting with the three-dimensional model of the reassembled statue and to compare it with the direct touch interaction with three-dimensional print of some statues in 1:10 scale, an experimental test was undertaken at the Center for Virtualization and Applied Spatial Technologies, University of South Florida. Using the haptic device 3D Systems Touch 3D Stylus paired with the proprietary software Geomagic Sculpt, a group of students were asked to interact with the digital model, then to interact with the three-dimensional print, and finally to describe the feedback in a questionnaire. The promising result of this preliminary survey offers a new perspective on the practice of virtual mimesis of ancient artifacts as a strategic educational tool both for people with visual impairments and cognitive disabilities and for the general public, who can learn more using the touch interaction.

Study of Late Roman and Byzantine Glass from Sicily by the Combined Use of Analytical Techniques

Anna Gulli, University of Catania, *Giuseppe Politi*, University of Catania, *Davide Tanasi*, University of South Florida, and *Stephan Hassam*, University of South Florida

In this work, we report on a detailed characterization of Late Roman and Byzantine (from second to eighth century C.E.) glass specimens found in Siracusa and Catania (Sicily, southern Italy) by the employment of a combined array of nondestructive and noninvasive analytical techniques, such as reflectance spectrophotometry, X-ray fluorescence (XRF), Raman spectrometry, scanning electron microscopy with X-ray microanalysis (SEM/EDS), ion beam analysis (IBA), and PIXE-PIGE. The glass fragments come from archaeological excavations carried out in 2015 at the Catacombs of St. Lucy at Siracusa (third to seventh century C.E.) and in 2002–2005 in the courtyard of St. Agata la Vetere's church in Catania (second to eighth century C.E.), two emblematic case studies for the analysis of their technological development in material culture production at the transition between the Late Roman and Byzantine eras. The analyses were aimed to provide physical and chemical characterization of the finds, to identify their pigments, and to define the provenance of the specimens. Furthermore, the data furnished new evidence of the technical advances of glass production between the third- and the seventh-century C.E. period in Siracusa and Catania. Another important goal of this research exercise was to prove the reliability of the nondestructive techniques and to compare those mainly used in order to assess which can result more successfully in the study of ancient glass. The SEM/EDS analyses on pristine bulk glass showed that the investigated specimens can be considered as typical silica-soda-lime glass characterized by mineral soda and a likely impure sand as raw materials. Regarding their provenance, most of the glass under study showed an average composition quite similar to the Roman glass. Two samples, SLV7 and SLV20, displayed compositional features between HIMT and Levantine I groups. This occurrence could be connected to employment of recycled materials rather than to peculiar provenance issues. Regarding the degradation state of the samples under study, SEM images showed that the brownish encrustations were on an iridescent surface that was in contact with the pristine bulk glass. In addition, the iridescent surfaces revealed a lamellar opal-like structure, and the presence of this mineral was confirmed by corresponding peculiar peaks observed in the spectra. Furthermore, the overall results indicated the presence of the main components of the altered layers, iridescent surfaces and brownish encrustations—that is, opal, quartz, clay minerals, plagioclase, and calcite in variable contents.

Archaeoastronomy in Sicily: A Report on Past, Present, and Future Studies

Andrea Orlando, Laboratori Nazionali del Sud (LNS/INFN), Catania

In this paper I present a review of the work already done on archaeoastronomy across Sicily since the 19th/20th centuries, as well as the studies already carried out in the 21st century and the planned future research campaigns. The first studies of archaeoastronomy in Sicily dates back to the 19th century, when some orientations

of the Greek temples were measured by German and British archaeologists. After these pioneering studies we have to wait until the end of the 20th century to count new archaeoastronomical analysis, which involved some important Sicilian prehistoric sites such as the Sesi of Pantelleria and the rocky necropoleis of Roccazzo, Tranchina, Castelluccio and Cava Lazzaro. In the first decade of the third millennium new archaeoastronomy studies involved the Gurfa Grottos, the small island of Mozia, and the Jato Valley. Since 2012 this archaeoastronomical research in Sicily has had a major boost thanks to numerous studies and scientific publications conducted by the writer. Interesting results have emerged from the archaeoastronomical analysis of several archaeological sites in Sicily, such as the small cromlech of Balze Soprane, the Temple of Diana at Cefalù, the Valley of the Temples at Agrigento, the Rocca Pizzicata and the rocky necropoleis of the Alcantara Valley, and the Argimusco plateau on Nebrodi Mounts. Finally, I briefly present the archaeological sites chosen for the future campaign of archaeoastronomical investigations in Sicily, which will take place in the 2018-2020 triennium. Among them, considering their potential archaeoastronomical value quite interesting, there are the shaft tomb necropolis of Thapsos, the prehistoric villages of the Aeolian archipelago and Milazzo, the anaktoron of Pantalica, the pillar structure of Monte San Basilio, and the temples and shrines of the Archaeological Park of Naxos and Taormina. For the realization of archaeoastronomical studies are used both satellite data andt typical instruments for surveying and geodetics (theodolite, total station, GPS, etc.). Archaeoastronomy in Sicily has quickly become an important new science, often subsidiary to archaeology, which can provide many useful data for a better understanding and interpretation of an archaeological site, the study of which has become increasingly multidisciplinary.

SESSION 3E: Colloquium
Agriculture in the Prehistoric Aegean: Data vs. Speculation Three Decades On

ORGANIZERS: *Susan E. Allen*, University of Cincinnati, and *China P. Shelton*, American Center of Oriental Research

Colloquium Overview Statement

This year marks the 30th anniversary of the publication of Julie Hansen's *AJA* article, "Agriculture in the Prehistoric Aegean: Data versus Speculation," which highlighted the lack of archaeobotanical evidence to test models of Bronze Age agriculture derived from Linear B evidence. In addition, Hansen outlined several strategies for moving beyond speculation about Bronze Age agricultural systems. Over the past 30 years, increased attention to (1) systematic, intensive sampling for floral and faunal remains, as proposed by Hansen, (2) greater integration of archaeobotanical, zooarchaeological, bioarchaeological, and geoarchaeological data, (3) increased application of plant and animal microfossil analyses and micromorphology, and (4) the use of more recent techniques, such as stable isotope analysis of plant and animal remains, has resulted in a significantly more robust body of evidence for the reconstruction of Bronze Age agricultural systems. In addition,

more explicit framing of agriculture and land use as key factors in the mobilization and deployment of power in the rise of Minoan and Mycenaean states signals a shift toward improved integration of various data sets to reveal the degree to which agricultural and land-use practices are embedded in changing socioeconomic complexity. This juncture seems an appropriate time to take stock of what progress has been made in a comprehensive way across the Aegean. Contributors to this colloquium revisit earlier models in light of new data from the last 30 years and propose new reconstructions of Neolithic and Bronze Age agricultural systems and their relationship to broader environmental and social changes.

The continued pattern of scant food remains at Early Neolithic sites in the Aegean is addressed in "Phytolith Evidence for Farming Activities in the Early Neolithic Site of Paliambela Kolindros." The following three papers, "Assessing Diversity in Animal-Management Practices," "From Speculation to Data," and "Renovative Modeling," highlight the potential of integrating stable isotope data with zooarchaeological and macrobotanical data to understand animal husbandry, land use, and resource circulation. "Mycenaean Agriculture from the Bottom Up" draws attention to the interpretive potential of combining macrobotanical data sets resulting from spatially intensive sampling with plant microfossil and stable isotope data for understanding agricultural systems. The final paper, "Agriculture in the Linear B Tablets: Data vs. Speculation," brings the colloquium full circle to reassess the Linear B evidence on which models of Aegean Bronze Age agriculture have been based and demonstrates the need for closer collaboration between archaeobotanists, zooarchaeologists, stable isotope ecologists, and textual scholars.

DISCUSSANTS: *Chantel E. White*, University of Pennsylvania, and *John M. Marston*, Boston University

Phytolith Evidence for Farming Activities in the Early Neolithic Site of Paliambela Kolindros in Macedonia, North Greece

Georgia Tsartsidou, Ephorate of Palaeoanthropology and Speleology, *Kostas Kotsakis*, Aristotle University of Thessaloniki, and *Paul Halstead*, University of Sheffield

Paliambela Kolindros, in Macedonia, north Greece, is among the few archaeological sites of Greece that preserve strata from the earliest Neolithic (before the mid 7th millennium B.C.E.). The early date of the site provides a rare opportunity to study closely the first farmers established in Greece and understand their way of living and acting. The up-to-now excavated features of this early phase are clusters of pit dwellings as well as stepped horizontal terraces carved into the bedrock after the soil has been intentionally removed. The pits are mostly oval in shape and of moderate dimensions (2–2.5 m), preserving very few cultural remains with no traces of fire and, on the evidence from the macro and micro research carried out so far, a complete absence of food remains or indications of food processing. On the other hand, the terrace areas revealed tightly located basins incorporating smaller pits and installations carved in the soft bedrock that preserve ashes and charcoal. These enigmatic installations, which are the focus of this paper, have

been provisionally associated with food processing and characterized as mortars. Phytolith analysis applied to evaluate these features verified that rich assemblages of wheat husks and especially all the by-products (inner and outer glumes and awn, as well as stem/leaf remains) of wheat processing were recorded in almost all these features. The phytolith evidence confirms, therefore, that these installations represent mortars for threshing and dehusking crops. They are thus the earliest mortars positively identified in the Greek Neolithic, and their very early occurrence offers a valuable insight into the agricultural activities of the first farmers in Europe.

Assessing Diversity in Animal-Management Practices in Northern and Southern Greece Using Sequential δ¹³C, δ¹⁸O Measurements of Tooth Enamel Carbonate of Domestic Herbivores

Petra Vaiglova, University of Oxford, *Amy Bogaard*, University of Oxford, *Paul Halstead*, University of Sheffield, *Armelle Gardeisen*, CNRS Montpellier, and *Julia Lee-Thorp*, Oxford University

This contribution presents a renewed exploration of themes related to management of plants and animals at two Neolithic sites in Greece, Kouphovouno (Peloponnese, southern Greece) and Makriyalos (Pieria, northern Greece). Previous stable isotopic investigations showed that farmers at these sites cultivated different species of crops under varying degrees of intensity, possibly because of their role in human and animal diets (in the case of Kouphovouno), and herded their cattle and sheep in distinct parts of the surrounding landscape (in the case of Makriyalos). This raised further questions concerning the seasonal management patterns of the domestic animals in the two distinct environmental zones, which were pursued herein through measurements of sequential tooth enamel carbonate δ¹³C and δ¹⁸O values of domestic herbivores from the two sites. At Kouphovouno, the aim was to investigate the possibility that sheep and goats from the two Neolithic phases (Middle to Late Neolithic) partook in transhumance into the nearby Taygetos Mountains. At Makriyalos, the archaeological context providing an unprecedented scale of ritual activity offered an opportunity to assess whether cattle and sheep buried in domestic and feasting contexts were managed in distinct ways in the coastal landscape. The results reveal that farmers at both sites herded their cattle, sheep, and goats in distinct ways, and this paper explores possible ecological and cultural reasons behind this.

From Speculation to Data? Using Stable Carbon and Nitrogen Isotope Studies to Test Land-Use Models in the Prehistoric Aegean

Amy Bogaard, University of Oxford, *Angeliki Karathanou*, Aristotle University of Thessaloniki, *Valasia Isaakidou*, University of Oxford, *Erika Nitsch*, University of Oxford, *Petra Vaiglova*, University of Oxford, and *Soultana Valamoti*, Aristotle University of Thessaloniki

In this talk we present recent case studies in the integrated application of stable carbon and nitrogen isotope studies of plants, fauna, and (where possible) humans

to test models of land use and to assess food webs in the prehistoric Aegean. We consider Neolithic to Bronze Age sites in northern, central, and southern Greece that featured in recent European Research Council–funded research ("The Agricultural Origins of Urban Civilization," AGRICURB) based at Oxford. A major strand of this research effort has been to establish the usefulness of stable carbon and nitrogen isotope analysis in wheats, barleys, and pulses from modern experimental or "traditional" farming sites and to apply these techniques to archaeobotanical crop assemblages. Here we frame debate surrounding land use in the prehistoric Aegean using a scale of agricultural "intensity" that encompasses watering and manuring practices. These aspects of crop-growing conditions can be assessed using crop stable carbon and nitrogen isotope values, respectively. Application of these isotopic techniques to the case study sites reveals diversity in local practices (e.g., more intensive manuring of one crop over another). But there is also broader convergence around relatively high-intensity, integrated cereal and pulse management by small communities. Large communities, such as urban Late Bronze Age Knossos, are associated with an agroecological divergence between cereals, which appear to have been managed extensively, on a large scale and with low inputs per unit area, and pulses, which continued to be grown intensively. We use these examples to reassess debate surrounding surplus production, "intensification," and technological innovation in the prehistoric Aegean—highlighted by Julie Hansen in 1988—and to explore the potentials and limitations of stable isotope techniques in Aegean archaeobotany.

Renovative Modeling: Upgrading Faunal (Re)Distribution at Late Bronze Age Mycenae

Gypsy Price, Appalachian State University, and *Jacqueline Meier*, University of Connecticut

This paper combines isotopic and zooarchaeological data from purposefully managed fauna recovered from the settlement of Mycenae, Greece, to test and revise faunal (re)distribution models operating during the rise and reign of Mycenaean palatial centers during the Late Bronze Age. Historically, Mycenaean Bronze Age economies have been characterized as redistributive systems in which patterns of exchange of goods and labor were funneled through and regulated by a central authority centered at the palace. Recent investigations challenge these models, noting that they ignore the practical circulation of mundane resources such as subsistence goods, interactions between everyday people in nonpalatial settlements, and site-specific variation. Rather, it is argued that multiple economic systems operated concurrently between palatial and nonpalatial settlements and institutions. These systems may have mobilized resources upward towards palatial settlements in response to political and social strategies institutionalized and perpetuated by the elite inhabitants (e.g., feasting, production of wealth items, mortuary ostentation, and reverence of divinities/ancestors), creating complementary networks of exchange that could have serviced specific nodes of consumption, but further testing of these models is needed to clarify the types of systems that were active at different Mycenaean palatial sites.

Hansen's seminal article calls for a closer examination of archaeological evidence to test these models. As isotopic analyses enable access to previously inaccessible lived experiences relating to seasonality, mobility, and diet, ratios recovered from species known to have been purposefully managed can establish inter- and intrataxonomic variation from which management practices may be inferred. Zooarchaeological measures of species abundance and demography also provide a refined picture of the roles of differently managed taxa in the diet. These combined methods are used to reconstruct management practices that reflect subsistence decisions enacted by producers and consumers. This paper presents results from faunal material recovered from the Late Bronze Age settlement of Mycenae, Greece. We provide new insight into the different faunal economies operating in disparate socioeconomic sectors of this palatial settlement.

Mycenaean Agriculture from the Bottom Up: Integrating Macrobotanical, Microbotanical, and Stable Carbon and Nitrogen Evidence from Tsoungiza and Iklaina

Susan E. Allen, University of Cincinnati, *China P. Shelton*, American Center of Oriental Research, *Calla McNamee*, M.H. Wiener Laboratory for Archaeological Science, ASCSA, *Kathleen M. Forste*, Boston University, and *Alexis Niekamp*, University of Cincinnati

Archaeobotanical research at Tsoungiza and Iklaina provides new data for testing models of Mycenaean agricultural systems from the bottom up, as called for by Hansen in 1988. Blanket sampling with close spatial control was adopted for the recovery of macrobotanical remains at both sites. In addition, starch grains and phytoliths from groundstone tools provide direct evidence for processing and indirect evidence for consumption. Stable carbon and nitrogen isotope analysis of barley and lentils from Tsoungiza provide further evidence for understanding crop husbandry practices. Together, these datasets help to clarify processing and consumption practices at these sites and their relationship to Mycenaean administrative systems.

Halstead previously suggested palatial control for economically important crops, such as cereals, olives, figs, and grapes. At Tsoungiza, the long-term consistency of agricultural strategies, particularly concerning cereals and pulses, does not support a shift from local to palatial control of crop husbandry as the site was increasingly drawn into the orbit of Mycenae. Similarly, large quantities of grape seeds occur in Early Mycenaean deposits, reflecting a history of grape cultivation prior to the rise of Mycenae. Stable isotope values for barley grains provide tentative evidence for reduced water availability in Late Helladic IIB, which may reflect an extensification of cultivation to more arid slopes or the broader regional trend toward aridity. Whereas barley is recovered more regularly than wheat as charred grain, wheat starch grains are more prevalent on groundstone tools. This discrepancy may point toward a culinary preference to process wheat into bulgur or flour and to utilize barley in an unprocessed form.

At Iklaina, spatially intensive sampling reveals macrobotanical variation across the site. As at Tsoungiza, legumes, particularly lentils, are common at Iklaina. The cultivation of pulses, which are not mentioned in Linear B, likely occurred outside

of palatial administrative control in household garden plots and would have provided these inland sites with an important supplemental protein source. Interestingly, their most consistent occurrence is in deposits associated with the construction of the Cyclopean Terrace, where they regularly cooccur with barley and fig. In contrast, structures in the residential and industrial quarter show greater heterogeneity of species. This distribution pattern may reflect differential access to resources and intrasite exchange, with legumes being produced outside of central administrative control but still acquired and used by the central administration on perhaps a very local level that is not reflected in formal records.

Agriculture in the Linear B Tablets: Data vs. Speculation
Ruth Palmer, Ohio University

Hansen's 1988 article reviewed Renfrew's and Halstead's models on the origins and nature of palace involvement in agricultural systems of the Bronze Age Aegean. This view of agriculture, based on palaces, storage facilities, and crops listed in the Linear B tablets, postulated a nascent central administration in the Early Bronze Age directing a system of crop specialization and redistributing the surplus. Hansen was the first to look at the archaeobotanical evidence for these crops and emphasize the scantiness of the data. Analyses of the Linear B tablets since 1988 show that rather than redistributing crops, animals, and goods produced within their territories, the palaces mobilize these goods. The palaces do grant access to some land in a sharecropping arrangement, in return for a particular crop (e.g., flax) grown on it. The question arises concerning the extent and nature of palatial specialized agriculture and its relationship to traditional agriculture in the Late Bronze Age.

The Linear B evidence for staple crops has some puzzling gaps that lead to two different models of how palaces intersect with traditional agricultural diversification. The two most common grains in the Late Bronze Age are six-row barley, which is tolerant of poorer soils but of lower prestige, and emmer wheat, which is more likely to fail but could be used for leavened bread. The main Linear B grain signs are *120 and *121, both called *si-to* (σῖτος). Since no tablet to date has the word for the grain next to the logogram, we do not know which is which: *120 (GRA) is used to measure land area in Pylos, is harvested in Crete, and is eaten as rations in Pylos, while *121 appears mostly in food distributions for festivals. The original interpretations by Ventris, Chadwick, and Palmer of *120 as wheat and *121 as barley were based on classical parallels, for which bread wheat was the main wheat and barley was worth half as much. Halstead's sharecropping model proposes that all the land measured in GRA is held by sharecroppers obliged by the palace to produce a surpluses of emmer wheat to feed slave laborers. But if *120 is barley, more tolerant than wheat and more widely grown, the land measurement and sharecropping system would fall in line with prevailing practices in the countryside, and slaves would receive barley rations that better match their status.

SESSION 3F: Colloquium
Etruscan Ritual in Context: New Approaches and Insights

ORGANIZERS: *Alexandra Carpino*, Northern Arizona University, and *Daniele F. Maras*, Sapienza University of Rome

Colloquium Overview Statement

While field archaeology confirms the Etruscans' reputation as a most religious people, understanding how their sacred debris functioned in its original contexts and reconstructing the actions that led to its deposit are less clear. By tackling different aspects of ritual in context, the papers in this colloquium address current research and propose avenues for further investigation. "The Archaeology of Cult in Veii: Methodological Approaches and Material Evidence" starts by providing a theoretical framework for the definition of "cult," "sacred," and "sanctuary," along with a classification system for understanding the different practices that took place at cult sites, particularly in Veii. "Ritual Practices in the Sanctuary of Pyrgi: Catachthonic Cults, Offerings to Demeter, and the Worship of Śur/Śuri and Cavatha" analyzes the evidence for customs and beliefs in the context of sacred spaces dedicated to multiple deities and cults that served local and foreign communities in a harbor sanctuary. In "Materiality, Ritual Action, and Ethnicity at the Sanctuary of Poggio Colla," a different pattern of systemic religious practices that were performative, repetitive, and reproducible are articulated in the context of a site whose material culture also raises questions about the correlation between ethnicity and ritual. New discoveries are the focus of "Ecofacts in Context: Ritual Uses of Plant and Animal Products at Cetamura del Chianti," which centers on a sanctuary site where an assemblage of botanical and faunal material, recently found in a well, sheds light on the importance of ecofacts within ritual performance. With "Childhood and the Deadly Hallows: New Perspectives on the Young Etruscans and Their Funerary Rituals," the colloquium transitions to practices found in the funerary sphere. By analyzing the latest data from Vulci, Veii, Bazzano, and other sites, the author articulates both the social significance of infant and child burials and what they reveal about the identities and statuses of young Etruscans. In the final paper, "Ritual and Etruscan Myth: Tages, Urphe, and *Caput Oli*," the session turns to the theme of images and ritual in context. Through an analysis of three stories, the author presents a framework for understanding how myth and ritual functioned together in the context of oracular divination. With its focus on the latest research and a variety of methodological approaches, this colloquium provides new insights on the relevance of ritual behaviors in understanding issues of belief, customs, and identity from archaeological remains, with consequences reaching far beyond the case study of Etruria.

DISCUSSANT: *Lisa Pieraccini*, University of California, Berkeley

The Archaeology of Cult in Veii: Methodological Approaches and Material Evidence

Ugo Fusco, Sapienza University of Rome, and *Daniele F. Maras*, Sapienza University of Rome

From a methodological perspective, detecting ritual practices and religious beliefs in archaeological contexts is principally a matter of collecting the material evidence for the practices and interpreting them in light of worship methods and religious ideologies. Crucial to the success of such endeavors, however, are solid definitions that lay out the meanings of terms such as "cult," "sacred," and "sanctuary," because these provide archaeologists with a theoretical framework within which their findings can be interpreted. Because the words "sanctuary" and "sacred area" are used to define sites in different topographical contexts almost ubiquitously in Etruscan archaeology, the time to address this problem has arrived. Also critical is a closer scrutiny of the material evidence for ritual in context at key sites, since these can generate a classification system for the different types of practices in relation to cult places.

By analyzing in depth the entirety of sacred areas in a given city (in this case, Veii), this paper provides an unambiguous definition of this category of sites and verifies its significance from the point of view of the ritual practices attested there, including foundation rites, sacrifices and rituals at altars, performances, rituals of divination or healing, closing or expiation rituals, etc. The starting point of the analysis is provided by a topographical survey of the sanctuaries acknowledged in the scholarly literature that draws on recent surveys published by the British School at Rome and the Sapienza University of Rome; here, the sacred characters of each site, or group of sites, are tied either to the presence of specific architectural features (such as temples, precincts, and altars) or to the concentration of material interpreted as votive (including pottery, figurines, and inscriptions). Finally, in their focus on the major Etruscan city of Veii, the authors present the first systematic archaeological survey of its cults. The data collected to date allow for a reassessment with respect to the information derived from written sources, both epigraphic and literary, thereby providing a complete and integrated corpus of the sources of information on the archaeology of cult in an important southern Etruscan city.

Ritual Practices in the Sanctuary of Pyrgi: Catachthonic Cults, Offerings to Demeter, and the Worship of Śur/Śuri and Cavatha

Laura M. Michetti, Sapienza University of Rome

The sanctuary of Pyrgi contains two sacred areas that lie on both sides of a stream. The so-called "Monumental Sanctuary" was established in the later sixth century by the tyrant of Caere, Thefarie Velianas, as an "official" projection of the city-state along the coast, while the "Southern Sanctuary," which contains simple shrines and stone altars, was frequented by foreigners and probably worshipers of mystery cults. As Giovanni Colonna demonstrated, the sanctuary of Pyrgi represents a community and ethnic sanctuary, since devotees who were participating in specific cults identify themselves as a community. Moreover, material evidence

from the altars in the Monumental Sanctuary, which sometimes were equipped with holes or deep perpendicular ducts, testifies to the presence of catachthonic cults in honor of Tinia, while those in the Southern Sanctuary correspond to the worship of Śur/Śuri ("the Black [god]" or "the one who lives in the Black"). In addition, a preference for rituals linked to the worship of catachthonic deities is shared by both areas, despite their differences in structure and function.

Pyrgi's compound represents an exceptional case study from which to investigate a variety of issues related to the theme of Etruscan ritual in context. This paper articulates the correlation between votive deposits and epigraphic evidence in both sacred areas and highlights the site's offering practices, the impact of the cohabitation of deities with different characteristics, and the occurrence of both catachthonic and Demetriac rituals in conjunction with the worship of the divine Etruscan couple, Śur/Śuri and Cavatha. Ritual contexts with an evident Demetriac flavor, for example, are especially attested in the Southern Sanctuary in connection with Cavatha, whom the Greek devotees identified with Demeter. Over the course of time, this goddess received jewels, Sicilian terracotta busts of female deities, Attic black- and red-figure pottery, statues of devotees with piglets, small turtles, and diverse foods (including shellfish) in saucers and other open vessels.

This paper also considers the excavations currently underway to the north of the Monumental Sanctuary, which have revealed a quarter with monumental buildings founded before the monumentalization of the sanctuary. These new discoveries testify not only to a "public" function in relationship to the political and economic management of the neighboring harbor but also to various "ceremonial" functions as evidenced by a series of ritual practices in connection with the foundation, transformation, and abandonment of structures and spaces having special symbolic value.

Materiality, Ritual Action, and Ethnicity at the Sanctuary of Poggio Colla
P. Gregory Warden, Franklin University Switzerland

Excavation of the hilltop sanctuary of Poggio Colla (Vicchio, Florence) has uncovered at least four major phases of construction: an orientalizing hut village, a monumental temple of Late Archaic date, and two subsequent courtyard complexes. The site was continuously occupied from the mid seventh through the second century B.C.E. An extraordinary series of ritual contexts also documents religious activity at the sanctuary; much of this activity seems to result from the trauma caused by the destruction of the temple around the end of the fifth century.

This paper discusses the pattern of systematic ritual action that can now be documented through a series of deposits that provide insight into religious observance at the site: public ritual that is performative, repetitive, and reproducible. Religious observance includes distinct behaviors repeated throughout the sanctuary's history: fragmentation ("ritual breakage"), reversal (turning objects upside down at deposition), and careful alignment and orientation of objects either to the axes of the sanctuary or to the cardinal points. Ritual activity also includes the deliberate interment of stone elements (podium blocks, column bases) of the destroyed monumental temple. The recent discovery of a large inscribed stela of sixth-century date has added to our understanding of cult at Poggio Colla. The

stele is one of the three longest Etruscan sacred texts found to date, and of those three, it is the earliest and the only one with a secure archaeological context. Moreover, the secondary context of the stele—it was deliberately interred in the foundations of the archaic temple—suggests that it may have been subject to the same ritual actions documented elsewhere at the sanctuary.

The location of Poggio Colla in an ethnically complex and liminal area of northern Etruria raises the question of whether this rich evidence for ritual behavior is exclusively Etruscan. The difficulty of correlating materiality with ethnicity is made clear by the site's material culture, which is characteristically and seemingly unequivocally Etruscan, while the specific ritual actions (the behaviors implicated in the reconstruction of depositional processes) are, in some cases, clearly paralleled in non-Etruscan (specifically Celtic, Ligurian, or Roman) contexts. The actions themselves—the behaviors rather than the material culture—create a narrative about ritual at Poggio Colla that goes beyond traditional definitions of materiality, thereby providing insight into the complex demography of this region in the fourth and third centuries B.C.E.

Ecofacts in Context: Ritual Uses of Plant and Animal Products at Cetamura del Chianti

Laurel Taylor, University of North Carolina Asheville

In recent years, the hilltop site of Cetamura del Chianti (35 km northeast of Siena) has yielded abundant evidence of ritual practice associated with a late Etruscan sanctuary, an artisans' zone, and two wells. The rich and varied spectrum of offerings includes artifacts corresponding to diverse object categories, along with ecofacts representing a variety of botanical and faunal material. While much of the artifactual record has been studied, recent residue, palynological, carpological, and wood analyses have broadened our knowledge about the importance of botanical and faunal material within religious practices at the site.

This paper presents a preliminary synthesis of the range and distribution of ecofacts in ritual contexts at Cetamura during the late Etruscan and transitional Roman periods (ca. 325–50 B.C.E.). Votive deposits within the sanctuary have yielded carbonized vegetal offerings, including fruits, cereals, and legumes, that provide evidence of the importance of ritual offerings of food substances within the sacred enclosure. Notably, while the sanctuary has yielded only botanical offerings, deposits on a nearby slope provide additional evidence of ritual activities that include newborn animals and other faunal sacrifices. Recently, archaeobotanical studies of material from Well 1, another locus of intense ritual activity, indicate a varied assemblage of ecofacts. While some of these remains represent deposition by chance, other subassemblages are statistically significant within this specific context. These include concentrations of grape pips, crocus, and wood as well as faunal material (including astragali and worked secondary animal products), all of which suggest ritual use of plant and animal products centered around this sacred well. The botanical and faunal remains from the well, moreover, are part of a larger ritual assemblage featuring a variety of artifacts, from ceramic materials to bronze situlae. By analyzing the distribution, context and possible ritual associations of the particular ecofacts from the Late Etruscan and transitional Roman

period at Cetamura (ca. 325-50 BCE), this paper sheds light on the importance, use and possible ritual significance of these materials within performance at the site.

Childhood and the Deadly Hallows: New Perspectives on the Young Etruscans and Their Funerary Rituals
Jacopo Tabolli, Trinity College Dublin

The study of death and burial constitutes one of the most powerful ways to explore past civilizations. Funerary remains represent a complex set of data related not only to the dead and the living community but also to expressions and renegotiations of identities. Among the most elusive and least understood funerary evidence from the ancient world are those related to infant (up to 2 years) and child (ca. 2–11/12 years) burials. This paper considers the life and death of infants and children in pre-Roman Italy with a special focus on ancient Etruria by applying an unprecedented interdisciplinary approach focused on funerary rituals in context.

In recent years, while the topic of infant and child burials in antiquity, and especially in the second and first millennia B.C.E., has been increasingly addressed in international conferences, monographs, collected volumes, and journals, only very rarely is the complex picture from pre-Roman Italy included in the analysis. Conversely, particularly in the last two decades, field archaeology in central Italy—at sites such as Vulci, Spoleto, Bazzano, and many others—has brought to light an impressive quantity of new data related to infant and child burials from the first half of the first millennium B.C.E. This material evidence now corresponds to one of the most representative samples in the ancient Mediterranean and allows scholars to understand better the social significance of the phenomenon of infant and child burials.

This paper not only evaluates these burials within their general regional and historical context in Italy but also situates them within the world of the adults. It concludes by grounding these burials within the special sphere of childhood, focusing on the Etruscan city of Veii and looking at the identities of (trans)formation during these early stages of life, which correspond to a multitude of rituals representing the different social statuses of the young Etruscans of this ancient community.

Ritual and Etruscan Myth: Tages, Urphe, and *Caput Oli*
Nancy T. de Grummond, Florida State University

It is fairly common for scholars to note that certain Greek myths must have appealed to the Etruscans because of details that were important in ritual: for example, the death of Capne (Capaneus) was relevant because of the throwing of lightning; Athrpa (Atropos) with the hammer and nail referred to Etruscan rituals of destiny; Chalchas with the liver recapitulated divination ritual from animal sacrifice; and Thethis (Thetis) grooming was related to marriage rites.

The number and variety of closely related rituals and myths, known especially from mirrors and gems, raise the question as to just how myth and ritual functioned together for the Etruscans. In the late 19th and early 20th centuries, the

Cambridge Ritualists claimed that the rituals came first and the myths developed from them. The reverse of this theory—that myths gave rise to rituals—has been occasionally argued. This chicken-and-egg debate has been considered rather futile, inasmuch as neither argument is always the rule. Furthermore, other theories are possible, including, for example, that the two proceed pari passu, evolving together, or that they rotate stages of ritual activity and mythmaking.

These viewpoints are, in fact, useful in themselves for interrogating the Etruscan myths that do survive, and this paper explores three stories that can provide some answers and a framework for further study: the myth of the prophetic child Tages (Cic., *Div.* 2.23; Lydus, *Ost*. 2.6.B), who emerged from the earth to reveal the Etrusca Disciplina to Tarchon; the ritual with a head of Urphe, in which a romantic couple seems to make a consultation; and the severed head of Olus (Aulus), which appeared as an omen on the Capitoline Hill when the Tarquin kings began to build the great Temple of Jupiter (Livy 1.55.5,5.54.7; Arn. 6.7; Serv. *Aen.* 8.345). All three stories relate to rituals of oracular divination and, it is argued, demonstrate varying ways in which myth relates to this ritual.

SESSION 3G
Cultural Change and Interaction

CHAIR: *Marsha McCoy*, Southern Methodist University

Tracing the Materiality of the Roman Conquest: New Research in Northern Iberia
Manuel Fernandez-Gotz, University of Edinburgh

For a long time, the Roman conquest of the northern Iberian Peninsula has remained virtually unknown from an archaeological point of view. According to written sources, the conquest of the last free communities of Iberia during the so-called Cantabrian Wars (29–19 B.C.E.) resulted in a major military effort by the Roman troops commanded by Emperor Augustus and his general Agrippa. The brutality of the campaigns is described by several ancient writers, but because of its archaeological invisibility numerous modern scholars have underestimated the impact of the war on indigenous communities. However, this situation is drastically changing. Several new research projects, including excavations, surveys, and large-scale analysis of aerial photographs and LIDAR images, have discovered a large number of Roman military camps, destruction of native hillforts, and even some spectacular battlefields such as that of Monte Bernorio. This paper presents an overview of this new evidence, placing it into the wider context of recent research on the Roman expansion in western Europe.

Cultural Amalgamation in Central and Northern Italy During the Third Century B.C.E.: Archaeological Evidence from the Roman Fleets
Jeffrey G. Royal, East Carolina University

Recent hypotheses addressing Roman consolidation of power in Italy during the fifth to third century B.C.E., particularly those proposed by N. Terrenato,

center on aristocratic alliances and shared goals that fostered economic and political power for individuals at the apex of society. Outcomes of an integrated elite network were the cultural and economic amalgamation of Rome within northern and central Italy. Specifically, Rome experienced strong cultural interactions with peoples in Latium and the Etruscan territories throughout northern Italy in this formative period, rather than an overwhelming Greek influence that is typically championed as having a principal impact. We may then ask: what will archaeological evidence look like supporting these hypotheses of Roman expansion and its associated cultural development? Such evidence is found in the physical remains of fleets operating during the First Punic War that were the products of large-scale building projects. Prominently placed inscriptions listing quaestors illustrate the state of Latin script, as do the formulation of individuals' identifications and abbreviations. The Latin inscriptions publicizing titled officials reflect the overarching Roman political organization that provided the connective structure for cultural melding. In addition to these official, state-level presentations of office holders for public consumption were notations used by individuals working in forging workshops. Etruscan numerals were inscribed inside some rams that exemplified the state of Roman number system development as well as the varied cultural identities of those participating in the Roman war effort. Interestingly, it appears these numerals designated information for casting within the Roman measurement system. Likewise, the rams' bronze alloy composition demonstrates the direct adoption of Etruscan material technology into the Roman suite of metalworking expertise as a result of the long-standing Etruscan prominence and technological expertise in the tradition of metalworking. Roman and Etruscan metal workers were apparently employed together in large Roman building programs. Further evidence of cultural amalgamation is noted in the iconographic elements that reflect syncretism in both the religious and secular spheres. Intercultural communication of craft methods, material use, and technological expertise were apparently taking place on an interpersonal level and are evident in the artifacts, which support Rome's significant integration in, and transformation of, the cultural landscape throughout central and northern Italy.

Indigeneity and the Incised and Stamped Wares from Morgantina
Emma N. Buckingham, University of North Carolina at Chapel Hill

Incised and stamped wares from the central Sicilian site of Morgantina constituted a small yet important fraction of the site's indigenous fine pottery beginning in the late eighth century B.C.E., and especially in the seventh and first half of the sixth century—a period corresponding to the Greek colonial period. This distinctive but diverse class, with links ranging from western and central Sicily to the eastern and western Mediterranean, indicates cultural continuity and, though often associated with western Sicily and the Elymian ethnic group, is widely spread throughout the island. Morgantina's material is notable for its diverse origins, forms, and decorative schemes.

A number of examples from Morgantina belong to the recently identified and still largely undefined class of "Gray Ware"; little is known about the origins of and influences on these wares. Although M. Frasca has suggested that wares from

Greek Chalkidian colonies may have influenced them, Greek Gray Ware appears in Greek colonies on Sicily's eastern and southern coast a century after indigenous counterparts and is clearly different typologically and stylistically. Few other efforts have been made to understand the indigenous tradition.

I present the results of a comprehensive, but still preliminary, study of the incised and stamped wares from Morgantina. This reexamination indicates that indigenous and Greek Gray Ware classes, despite stylistic and typological similarities, are likely parallel developments, each using its own traditional shapes, although both may be related to western Anatolian Gray Ware of the Early Iron Age. These and other incised and stamped vessels are not found in isolation; they were originally used along with Siculo-Geometric or painted indigenous vessels and, in sixth-century contexts, with imported and colonial Greek wares. They also fit within a long tradition stretching back to the Neolithic. These wares are therefore a distinctly indigenous phenomenon, similar to Siculo-Geometric painted vessels, and like them they were used into the later Archaic period. But although distinctive, they often use imported motifs and imitate metal forms, signaling a desire by the consumers to participate in wider reaches of connectivity. The mixed local and international nature of some types of incised wares (particularly Gray Wares) suggests a more complicated picture than a dichotomy of "Greek" vs. "indigenous"; thus the ceramic class encourages a break from traditional ethnic binaries in discussions of settlement dynamics at archaic Morgantina.

Toward a Unified Model of Graeco-Etrusco-Phoenician Urban Form

Simeon D. Ehrlich, Stanford University

This paper argues that the Etruscans and Carthaginians do not emulate grid forms upon encountering the cities of Magna Graecia, but rather that the orthogonal grid represents the culmination of concurrent incremental developments in the urban forms of Greek, Etruscan, and Phoenico-Punic sites of the eighth through fifth centuries B.C.E. Analysis of the morphological composition of gridded and nongridded sites of these cultures affirms a progression toward more ordered modes of urban organization, which refutes the notion that grid planning emerges as a fully developed system. Rather, grid planning is the manifestation of principles such as coordinated alignments, regularity, rectilinearity, and orthogonality as applied to a greenfield site; it arises only when circumstances permit, not as a result of cultural emulation.

Ward-Perkins posits a shared Graeco-Etrusco-Roman tradition of urban planning and suggests—but does not substantiate—the notion of a Phoenico-Punic component to these concurrent developments. This paper takes up his cause, demonstrating the common elements uniting these cultures in a pan-Mediterranean tradition of planning. Plans from recently excavated sites allow for the identification of trends not discernible in Ward-Perkins' day.

Morphological analysis of street networks shows that among Greek sites, a period of experiment yields numerous near-gridded forms that feature vastly different circulation patterns from true grids. These proto-grid forms support the model of a progression of organizational developments. Likewise, the later date of non-Greek gridded sites such as Carthage, Marzabotto, and Spina is taken as indicative

not of the borrowing of more advanced Greek forms but rather of the conditions for a grid-planned site to arise, only being achieved at a later date by the Etruscans and Carthaginians.

Ultimately, this paper seeks to refute the Hellenocentric model of urban form whereby the Greeks are innovators and their neighbors are imitators. The sheer number of excavated Greek sites often overshadows whatever the paucity of excavated Etruscan and Carthaginian sites may yield. The similarities among Greek, Etruscan, and Punic sites of the eighth, seventh, sixth, and fifth centuries B.C.E. argue for exchanges of abstract cultural capital and a shared conception of spatial organization. The period of experiment that culminates in the orthogonal grid forms of classical and Hellenistic Greece is evidence of the same progression in urban forms that manifests in the sites of Etruria and the Phoenician colonies of the western Mediterranean.

Maiestas Embodied: On the Origins of the Goddess Roma
Sarah H. Davies, Whitman College

Roma Aeterna. For millennia, this idea—that Rome can transcend the ages—has fascinated and summoned awe. At the same time, it invokes a goddess, associated with the city and the *maiestas* of the *res publica*. Scholarship on the goddess Roma has largely focused on her worship in the Imperial period, since she emerges in full form during the Augustan period, along with the term *urbs aeterna*. Other scholars, who have looked to earlier, Republican/Hellenistic origins of the goddess, have either emphasized her development as a purely Hellenistic-Greek invention, as Thea Rhōmē, or have searched for a single goddess of Italic or Hellenic origin (e.g., Diana or Athena) who served as inspiration.

This paper takes a different approach: using both textual and visual (mainly numismatic) representations, it argues that the origins of what was to become the imperial goddess Roma are international and belong to a key period, the late third and second centuries B.C.E. It emphasizes that it was in this period that Rome was first mapped onto a "global" framework, when the very nature of the *oikoumenē* itself was being redefined and Hellenicity reframed as a universalizing ethos. In this context, divine female personifications abounded, from the Demeters and Minervas of Magna Graecia to the Tuchē Poleōs of Hellenistic cities to Ptolemaic queens in the guise of Isis. As such, an incipient Roma was part of an energetic community, replete with exchanges of images and ideals. The explanation, however, for the eventual predominance and uniqueness of Roma can be found in ongoing experiments in defining "Rome" as a state entity and as an international presence. As Rhōmē, she subsumed the image of every Tuchē in the Hellenistic poleis, while accruing the iconography and honors of Hellenistic kingship and the linkages of kinship diplomacy. Most importantly, she transcended, to become the queenly patron goddess for the new *kosmopolis*, while representing the *maiestas populi Romani* and its celestial *aeternitas*.

As the crises of the Middle to Late Republic accumulated and apocalyptic traditions turned predictions to Rome, Roman narratives at once embraced the topic of decline and fall, while enhancing visual reassurances. By the Augustan period, both traditions conjoined and guaranteed the full adoption of Roma. For

Augustus declared not only that the republic had been restored but that such a return heralded a new saeculum. The goddess Roma, now enthroned alongside the new princeps, was confirmed, and she guaranteed that Roman imperium was universal and everlasting.

Parthian Rhyta at Home and Abroad: Reconsidering the Ivory Rhyta of Nisa in Light of Roman Evidence from the First Century B.C.E.
Jennifer Black, University of California, Berkeley

The rhyton, or drinking horn, is a vessel known from the Mediterranean, Near Eastern, and central Asian worlds. Associated with wine and banqueting both in imagery of Dionysus and in secular feasting contexts, rhyta (particularly those known from the Near East) are often rendered in such luxurious materials as gold and silver. A remarkable assemblage of Parthian rhyta in ivory is known from the Arsacid capital of Nisa. These rhyta pair protomes of mythological beings with Hellenistic figural reliefs. Although much scholarship has been produced regarding the Nisa rhyta, the iconographic significance and dating of these vessels have been understudied.

This paper presents three central arguments. First, it argues for the Nisa rhyta as belonging to a short-lived rhyton form, presenting this after a brief history of the Iranic rhyton. Second, it considers three of the protome types—lion griffin, winged bull man, and centaur—and their potential for dual valency within syncretizing Parthian and Greek religion. Third, it suggests a reevaluation of the chronology for the Nisa rhyta in light of a comparandum from first-century B.C.E. Rome—a rhyton fountain found in the Horti Maecenatis.

"Diaspora" in the Visual and Material Culture of Late Antique Judaism
Sean Burrus, University of Michigan

Throughout late antiquity, prominent Jewish communities flourished across the Mediterranean, from Spain to Babylon. Significant archaeological and literary traces of these communities remain, and the scope and diversity of this material record offers us one of the best chances for exploring the role of migration and diaspora in shaping the cultures and experiences of the Late Antique Mediterranean. Discourses of "diaspora" historically emphasize memories of and ongoing ties to an ancestral homeland as a geographic site around which diaspora consciousness coalesces. Since the Babylonian exile in the sixth century B.C.E., literary narratives of Jewish diaspora have similarly centered on exile and the traumatic loss of temple and home. Yet the relationship between Late Antique Jewish communities in the diaspora and Israel—real or imagined—is anything but clear.

This paper interrogates that relationship, exploring the tension between home and abroad and the intersection of material and visual culture and the diaspora experiences of the Late Antique Mediterranean through two case studies: the Jewish communities of Rome and of Dura Europos, an important frontier city in the east from the Hellenistic to the Late Roman period. These communities are located at opposites ends of the Mediterranean and offer an unrivaled geographic and

cultural scope that can shed light on the realities and possibilities of diaspora experiences of late antiquity. Looking at common, almost ubiquitous representations of Jewish ritual symbols and cult objects across a variety of media—frescoes, stone sculpture, and gold glass—I explore the relationship between images and the diaspora experiences of the communities that created them. I argue that the diasporic culture from these two sites captures the multilocal nature of Jewish communities in late antiquity and further that focusing on the geographic underpinnings of diaspora can obscure the locally grounded experiences of communities. I show how popular but ambiguous symbols like Torah shrines can be viewed either as reflections of rootedness in local institutions like the synagogue or as visual metaphors that encode collective memories of trauma, uprootedness, and nostalgia through allusions to a historical homeland and religious focal point. In line with more recent, "decentered" theories of diaspora, I make the case that this ambiguity is a vital expression of a central facet of diasporic experiences in a diverse and multicultural Late Antique Mediterranean: not the centrality of home but the tension between making a home "here" and memories of a home "there."

SESSION 3H
The Roman East

CHAIR: To be announced

Roman Palmyra, City of the Sea?
Katia Schörle, Brown University

Palmyra, often referred to as the Pearl of the Desert, has embodied par excellence the caravan city ever since Rostovtzeff (*Caravan Cities* [Oxford 1932]) applied the term to this town located deep into the Syrian desert, which thrived between the first and third centuries C.E. The city's splendid remains have long been considered as the reflection of the local merchant class' wealth and overall involvement in the long-distance overland trade to the Persian Gulf and as far as China.

Pliny's (*HN* 5.88) comment that the oasis city was *prima cura* of both the Roman and Parthian empire certainly had as much to do with policies at the borders as with control over a city that had plenty of local resources and, most importantly, access to desirable goods via a well-established long-distance trade.

This paper explores Palmyra's merchant long-term economic strategies and choices. Through the careful examination of reliefs and inscriptions both in Palmyra and in Egypt, it can challenge a vision of Palmyra as a city engaged in solely overland trade and argue for much wider maritime commercial interests. Technical relief details point to the importance of maritime shipping, which can be specifically related to ship ownership and commerce with the Mediterranean as well as the Indian Ocean, with the development of a presence on the Nile and in Egypt in order to control or at least secure access to major transshipment areas.

With the rise of competition, mainly due to the development of maritime routes via the Red Sea, Palmyra had to increasingly consider the effective use of different transport means to beat competition by timely delivery of luxury goods to

competitive Mediterranean markets. It also had to bypass intermediary markets in order to obtain goods at their production origin.

Pleasing the Public: The Combined Monumentalization of Streets and Shops in the Eastern Roman Empire

Benjamin Crowther, University of Texas at Austin

Early in the second century C.E., famed orator Dio Chrysostom put forward a proposal to adorn his hometown of Prusa with a colonnaded avenue, the defining emblem of urbanity during this period. However, he miscalculated public opinion and encountered stiff resistance to the project from the city's blacksmiths, who resented the proposed avenue's failure to replace the shops and workshops it threatened to encroach upon. While Dio Chrysostom was unable to overcome these objections to his proposal, elsewhere numerous other sponsors convinced their communities to undertake the construction of a colonnaded avenue, despite the great expense and disruption to the city that accompanied such a project. Through a combination of archaeological evidence for the development of colonnaded avenues and epigraphic evidence that details construction processes, I explore how the sponsors of colonnaded avenues reconciled their aspirations to create monumental architecture with the daily needs and requirements of affected stakeholders and members of the urban community.

For an architectural case study, I have chosen the colonnaded avenue of the cardo maximus at Apamea in Syria, whose northern section features more than half a kilometer of continuously preserved colonnades as well as in situ building inscriptions that offer insight into their construction. Variations in design principles of the colonnades, such as the use of distinct entablatures, indicate different sponsorship for individual sections. But despite variation in sponsorship, all these sections possessed at least one regular element: a continuous row of shops set behind the colonnade. I argue that this uniform decision to incorporate these commercial amenities into the monumental street resulted from a community demand for functional public space similar to that experienced by Dio Chrysostom. Although rows of *tabernae* were constructed as part of the majority of colonnaded avenues in the Roman East, never once were they commemorated in epigraphy, either at Apamea or elsewhere. Instead, sponsors celebrated the monumental aspects of the colonnaded avenues they created, particularly the columns and the pavements along these thoroughfares. This discrepancy between commemoration and construction addresses the conflicting attitudes toward public space in the cities of the Roman East. Sponsors operating in an environment of competitive euergetism were keen to monumentalize public space to promote their own reputation, yet this goal was only attainable if their projects offered public amenities like commercial space that catered to the needs of the urban community.

The Necropoleis of Anazarbos (Cilicia): Diachronic Development and Historico-Cultural Interpretation
Maximilian F Rönnberg, Eberhard Karls Universität Tübingen

In a 2004–2007 survey, all of the approximately 1,300 graves distributed in five different necropoleis around the ancient city of Anazarbos (Cilicia) were recorded. These tombs, mainly freestanding and rock-cut sarcophagi and grave houses, represent one of the largest numbers of imperial grave monuments in a single town of the Roman East and the biggest ancient cemeteries ever documented in detail and in their entirety in southeast Asia Minor. Along with an inner-urban pottery survey, geophysical prospections, and an architectural survey, they are fundamental for reconstructing the urban history of this major city.

My research on these necropoleis will constitute one part of the final publication of the project, which is currently being prepared. Since the closer dating of seemingly uniform monuments has always been a problem in many large Imperial-period cemeteries of Asia Minor, and Anazarbos has proven to be an ideal test case, the paper first outlines the methods used to date the single tombs, ranging from art historical analyses of the more elaborate sarcophagi to topographical considerations, from epigraphical observations to the examination of single form elements like *tabulae ansatae*, and from statistical to metrical observations. Based on this, novel conclusions are presented, beginning with new evidence on the origins of the city, to be sought in multiple Hellenistic hamlets in and around the later town area, which can partly be located near small clusters of rock-cut tombs. Continuing by showing a change in burial habits in the earlier second century C.E., the emergence and rapid development of the imperial necropoleis can be gradually retraced. After a sudden end of this process around the middle of the third century C.E., it is possible to recognize a continued use of some areas of the cemeteries in Early Byzantine times, while in the same period a change of use of other burial grounds and a shrinking of the town are noticeable. For all of these developments, Anazarbos will be an ideal starting point for future research in the region.

Finally, a new historico-cultural interpretation of the immense growth of the necropoleis of Asia Minor in the mid Imperial period is suggested: The large number of simply designed but widely visible grave monuments thus can be taken as communicating not specific individual status but the grave owner's pride to be part of the city's citizenship, and this development may be connected with the upswing of the town.

Roman Çatalhöyük
Sophie V. Moore, Brown University, and *Michelle Gamble*, Austrian Academy of Sciences

Above both the east and west mounds of the UNESCO world heritage site of Neolithic Çatalhöyük is a Roman cemetery dating from the first to the fourth century C.E. Since 1997, 80 individuals from this period have been excavated, and since 2011 there has been a dedicated research team on-site studying the historic cemeteries. This paper considers the various bodies of evidence that give us insight into the Roman mortuary population, incorporating both the graves themselves

and the immediate landscape surrounding Çatalhöyük into the analysis. In addition to the excavation of the cemetery and the palaeopathological study of the population, this paper draws on a program of fieldwalking and small-scale retrogressive map analysis to consider why this substantial Roman cemetery might be placed quite so far from a major road or large settlement. Drawing on evidence for Early Christianity on the Konya Plain, this paper explores the implications of place and grave inclusions for interpreting the Roman community at Çatalhöyük.

In addition to reporting on the Roman cemeteries at Çatalhöyük, this paper considers the mechanics of the archaeological recording processes in place on-site for studying the "post-Chalcolithic" material. At Çatalhöyük, an archaeological strategy designed to investigate the Neolithic settlement has produced a rich data set for the Roman period. The production of archaeological data outside the stated research aims for a project is a relatively common chain of events in Near Eastern archaeology; however, the reflexive methodology in place at Çatalhöyük makes it a particularly useful case study site for how that data can be managed and integrated within the overall project. I consider how the research methodology constructed for the Neolithic period has enabled and constrained the analysis of later periods and how the targeted nature of funding awards has affected the study and publication of the total history of this multiperiod site.

The Prytaneion Under Roman Rule: The Case Study of Asia Minor
Josefine Buchhorn, Freie Universität Berlin

The aim of this paper is to discuss the continuity and significance of the prytaneion in the Roman Imperial period using the case study of Asia Minor. In his important study of the prytaneion from 1978, Stephen Miller argued that the prytaneion, as an institution and building, became increasingly insignificant from the Early Hellenistic period onward. This view concurred with the long prevailing opinion that the Greek polis saw a political and cultural decline in the Hellenistic period. Miller was not concerned with the prytaneion after the Hellenistic period. Evidence of the prytaneion in the Imperial period, however, has been neglected in research until today, although theories of a general decline of the Greek polis under Roman rule have recently been challenged.

Based on a compilation and analysis of written sources and on a critical reassessment of published literature on prytaneia I argue that, at least in Asia Minor, the prytaneion, as an institution and a building, did not uniformly lose its importance in the Imperial period. Instead, like other Greek political and cultural institutions (e.g., bouleuterion and gymnasion), prytaneia were continuously used in the first to third century C.E. Providing a synthetic overview of the evidence, I first discuss written sources, notably inscriptions and literary sources and their distribution and content. Second, I assess the archaeological evidence and show that in Asia Minor the Imperial period saw both the construction of new prytaneia and the continuous use and remodeling of existing prytaneia. While prytaneia were not constructed following an easily recognizable standard building type, I discuss criteria for the identification and classification of Imperial-period prytaneia.

Combining the evidence, I demonstrate that prytaneia played a particularly important role in civic life during the Augustan and Early Imperial period, when

they existed in the provincial capital and in large as well as small poleis. Inscriptions confirm that, as in the Classical and Hellenistic periods, the prytaneion still served as a place for honorable feeding, official residence of the *prytaneis*, and central sacrifices. Evidence of prytaneia decreased in the second and even more dramatically in the third century C.E., when the prytaneion obviously lost its importance. In sum, the study of the prytaneion in the Imperial period provides an important contribution to the reevaluation of Greek culture in the Roman world.

City Walls as a Window into City History: The Secondary Set of Walls Within the Ancient City of Side, Pamphylia

Katja Piesker, German Archaeological Institute

In the Roman period, the city of Side, Pamphylia, occupied a whole peninsula on the southern coast of modern Turkey. It was separated from the coastal plain by land walls made of ashlar masonry from a local conglomerate. At a later time, a secondary set of walls was built at the narrowest point of the peninsula dividing the city into two roughly equal halves. These walls were mostly built on top of existing structures, such as the stage building of the theater, and they were made of "spolia," reused blocks, from various edifices that may have been dismantled on purpose in order to build the walls.

As in many other cases, the walls within the ancient city have been considered an indicator of urban decline and rather generously dated to late antiquity or Byzantine times. Suggestions range from the fourth to the 12th century C.E., and they range from a shortened fortification circuit—built either in the Late Roman period, in the time of the Persian and Arab invasions in the seventh century, or in Medieval times—to a powerful symbol of civic pride, built in the fifth or sixth century C.E. All proposals are based on historical considerations and scattered observations—not on a careful study of the walls themselves and/or systematic excavations.

This is where the ongoing project comes in: A meticulous survey of the preserved structures by the author since 2013 has been accompanied by limited excavations by Feriştah Soykal-Alanyalı in order to establish a reliable stratigraphy of the use (or nonuse) of the areas directly in front of the presumed fortifications. The building survey provided important insights into the walls' unexpectedly long history. For example, the walls south of the theater were built on top of potential earlier predecessors that were reused as an aqueduct in the Roman Imperial period. The destruction of the water channel made way for the first of two distinctive Byzantine building phases of the presumed fortifications that need to be dated and interpreted.

The current investigations contribute to our understanding of the Byzantine reshaping of Roman Side but also to our knowledge of the Roman city on which the later walls rest. The secondary set of walls within the ancient city testifies to the urban development of Side—at least—from the early Roman Imperial until the Middle Byzantine period—and is studied and presented accordingly.

The Temple-Church at Aizanoi: A Reappraisal of Its Date, Architecture, and Role in Local Memory

Anna M. Sitz, Center for Hellenic Studies

The Sanctuary of Zeus at Aizanoi (Phrygia) presents one of the best-preserved Roman temples in Anatolia, with significant portions of both cella walls and peristasis columns still standing. The excellent state of preservation is due at least in part to the reuse of the temple as a church by the Christians of Aizanoi prior to the advent of the non-Christian Çavdars in the 13th century. D. Krencker and M. Schede, the excavators of the temple in the 1920s, fixated on the original Roman temple rather than its later phases, and the scanty architectural remains of the church were removed with limited documentation. The subsequent publication of the excavation finds by R. Naumann in 1979 devoted only two pages to these "Byzantine" remains; a ground plan, but no section drawings, were given. My aim is to clarify the architecture and dating of this temple-church.

The conversion of the temple was assumed by the excavators and most subsequent scholars to have taken place in late antiquity (fourth to seventh century C.E.), although with only limited analysis of the architecture and finds. P. Niewöhner, however, has recently redated the church to a later period, connecting it with a Middle Byzantine settlement situated within the older temenos (Tempelhof). He argues that the architecture of the temple-church, as far as can be reconstructed, does not fit in late antiquity and that the Tempelhof had already been robbed out below Roman ground level when the conversion took place.

Based on my reappraisal of the published archaeological finds and stratigraphy of the Tempelhof, I argue that the reuse of the temple did, in fact, take place in late antiquity. I present the first reconstruction drawings of the superstructure of the church and connect the architecture to other Late Antique comparanda. Contra the sequence of stone robbing, partial collapse, and settlement assumed by Niewöhner, I present an alternative series of actions resulting in the strata around the temple. My analysis is aided by 1920s photographs from the Deutsches Archäologisches Institut archives.

With the temple-church now situated in late antiquity, I connect this structure to the broader attitude of the Late Antique inhabitants of Aizanoi vis-à-vis their city's pagan past and their deliberate, creative, and calculated reuse of older monuments. The incorporation and spoliation of older inscriptions, both at the temple-church and throughout the city, are especially significant in preserving and modulating cultural memory.

SESSION 3I
Harbors and Trade in the Ancient Mediterranean

CHAIR: *Joseph Rife*, Vanderbilt University

From Burgaz to the Knidia: Contextualizing the Maritime Landscape of the Datça Peninsula
Justin Leidwanger, Stanford University, *Elizabeth S. Greene*, Brock University, and *Numan Tuna*, Middle East Technical University

Archaeological investigations at the Archaic through Late Roman harbors of Burgaz ("Old Knidos") on Turkey's Datça Peninsula have been conducted since 2011. As a collaboration between Brock University, Stanford University, and Middle East Technical University, the Burgaz Harbors Project explores the long-term development and dynamism of the port complex and its integration with broader networks of the southeast Aegean and beyond. Recent analyses include not only the coastal infrastructure and changing maritime landscape at one site but also the larger economic geography of the Datça Peninsula before and after the expansion of Knidos as the preeminent urban center in the region.

The narrow peninsula's mountainous terrain and lengthy coast were key features in its long-term socioeconomic development. While Burgaz was situated midway along the southern shore near a natural harbor and in close proximity to the region's only extensive low-lying farmland, Knidos evolved as a major port without a significant adjacent agricultural hinterland. Many of the smaller settlements in the region clung to narrow river outlets backed by high mountains, effectively cutting off easy overland access despite their relative proximity; nonetheless, archaeological survey at these sites by N. Tuna in the 1980s brought to light extensive material remains of small-scale production and distribution.

While no two coastal sites are identical, the appearance variously of press stones, built dolia with associated processing areas, and pottery workshops underscore the extent to which agricultural production was diffused along the coast and dependent on routine short-haul movements by sea: grapes or olives for pressing, empty amphoras for packaging, and finished products for export. Simple jetties or breakwaters transformed basic coves into effective harbors, but even those lacking maritime infrastructure and open to the meltem winds could service occasional small vessels anchored in the shallows or pulled up onto the beach. Despite a road that ran the length of the peninsula, economic connections seem to have depended on an archipelagic-like chain of settlements along the coast linked by the sea. Shipwreck surveys conducted by the Institute of Nautical Archaeology support such bustling activity. Through a model that analyzes settlement distribution along with maritime and overland mobility, this paper weaves a complex and evolving landscape of sites—from Burgaz and Knidos to the small coastal farmsteads—into an integrated economic network that mobilized the agricultural produce of the Knidia for regional Hellenistic markets and beyond.

Maritime Trade in Hellenistic Akko: Ceramic Evidence from the Akko Harbor

Nicole N. Constantine, University of Haifa

In this paper, I present my research on a vast assemblage of Hellenistic pottery excavated from the harbor at Akko. Hellenistic Akko was a commercial center that existed between several spheres of cultural and economic influence. While Greek language and material culture flourished in Israel, Phoenician culture and Jewish practice both maintained presences throughout the coast and inland regions. The harbor assemblage reflects Akko's economic position, containing fine tablewares from the Aegean and Syria, both imported Aegean and local storage vessels, and table service vessels produced in Lebanon. I examine one vessel type—the Phoenician semifine juglets—as a case study in the discussion of Akko's maritime economy in the Hellenistic period. The semifine juglets were found in high concentrations in all excavation areas. No specific production center has been identified, though Phoenician semifine was produced in southern Lebanon. The juglets may have been used as table vessels for fine oils or as perfume bottles. While the assemblage in general bears resemblance to Hellenistic assemblages from the sites along the Carmel Coast, the Jezreel Valley, and Cyprus, the semifine juglets belong to a group of vessels more commonly found in the southern Levant and North Africa. I argue that this is a result of the continuity of Phoenician dominance in Akko and discuss how the semifine juglets may have been brought to Akko from Lebanon via land routes or cabotage. While the juglets have been excavated from land sites in Akko, the higher concentration found in the harbor suggests that Akko may have been a distribution center for these vessels.

From Cilicia to Egypt: Seafaring and Maritime Trading in the Roman Period

Autret C. Caroline, University of Fribourg

Greek papyri furnish useful information about the maritime commerce that transpired between Cilicia and Egypt during antiquity. The Zenon correspondence indicates, for instance, that different types of wines from Cilicia were imported to the Fayum as early as the middle of the third century B.C.E. Other textual evidence from Egypt indicates that Cilician wines were still imported in Egyptian port cities in the second or early third century C.E. In the Roman period, besides the nature of the cargo, the papyrus *P. Bingen 77* provides evidence on the merchant vessels used to sail from Cilicia to Egypt, and thus on ships and seafaring. But it also refers to the sailing routes conducted by these ancient vessels and demonstrates the sustained commercial relations of these two eastern Roman provinces during antiquity. Archaeological research in Cilicia, more specifically at Aigeai, an important port located in eastern Cilicia (Cilicia Campestris), and one of the cities named in *P. Bingen 77*, demonstrates that several amphora types intended to carry wine were produced at this harbor. Additional evidence, such as locally minted coins, improves our knowledge of this ancient port and its trading activities. Furthermore, Cilician amphoras discovered along the coast of Syria-Phoenicia provide significant evidence for the navigational route from Cilicia to Egypt and support the testimony of *P. Bingen 77* on coastal navigation between these two provinces. The purpose of this communication is thus to combine the testimony of

this diverse array of ancient sources, more precisely papyri, coins, and amphoras, in a wider discussion of ancient seafaring, sailing routes, and maritime trading between Cilicia and Egypt. Based on historical sources and material culture, this presentation thus examines the special commercial relationship these two eastern provinces maintained in antiquity, and especially during the Roman era.

Harbors of Refuge: Post-Vesuvian Population Shifts in Italian Harbor Communities
Steven L. Tuck, Miami University

The goal of this project is to attempt to answer definitely whether people from Pompeii and Herculaneum survived the eruption of Vesuvius in 79 C.E. and if so, whether survivors can be located in the Roman world. After creating eight categories of evidence that might indicate refugee resettlement, including individuals whose movement is documented, Roman family names, voting tribes, refugee intermarriage, new infrastructure, and cultural evidence, I created databases of family names from Pompeii, Herculaneum, and the prospective refuge cities of Capua, Cumae, Naples, Nola, Ostia, Paestum, Puteoli, Salerno, Surrentum, Ulubrae, and Velia. Analysis of this material across the eight categories of evidence finds that the coastal communities of Cumae, Naples, Puteoli, and Ostia provide the best support for refugee resettlement. For example, at Cumae two members of the Sulpicius family recorded at Pompeii late in the life of the city died at Cumae in the late first century. They were joined there by members of the Pompeian branches of the Licinii and Lucretii, who intermarried in the new city. The patterns indicate that more people survived from Pompeii than from Herculaneum, that most stayed in coastal Campania, and that government intervention and support came after resettlement but did not drive it. Additionally, the refugees that can be traced seem to have selected refuge cities based on personal factors such as social and economic networks.

Lechaion Harbor and Settlement Land Project: Results from the 2017 Excavation Season
Paul D. Scotton, California State University, Long Beach, *Constantinos Kissas*, Corinthian Ephorate of Antiquities, and *Angela Ziskowski*, Coe College

The second season of the Lechaion Harbor and Settlement Land Project has documented Early Roman finds and levels as well as sixth-century C.E. destruction levels across the areas under excavation. In Area A, immediately to the south of the inner harbor, this debris was largely collapse within a room at the west end of a building of unknown length. The debris was in the form of roof tile, mortared stone, and occasional tesserae and revetment. In the southern third of the room were abundant fragments of fallen painted plaster. A sondage against the inner face of the original building demonstrated an Early Roman date perhaps as early as the second half of the first century B.C.E. In Area B, we found an additional 52 coins of the hoard of 73 coins excavated last year, all found below a collapse of roof tile. This hoard, dating to the fifth century C.E., was found in the same

context as the iron lock found last year. In adjacent areas, excavators found iron slag, unworked iron, and abundant cooked animal bone. In an area that may be a work yard was a concrete basin, and adjacent to it were numerous shells, largely small clams. In Area C, the foundations of the eastern apse of the basilica are well preserved, as are the marks of pry bars used to remove the ashlar superstructure. Geophysical survey of the structure conducted during the 2016 season documented an earlier apse with the same orientation as the later but to the west and lower in elevation. Excavation confirmed the presence of this apse, and a sondage dug to the base of its foundations offered an Early Roman date for its construction. A second sondage in the southeast interior corner of the later building indicates a first-century C.E. date for its construction. It is now clear that there were at least three phases of construction for the basilica.

Geophysical survey to the north and east of the inner harbor confirmed the road system previously revealed by aerial survey and documented by David Romano. A new aerial survey conducted by drone with a 4k camera has revealed previously unknown features, including an oval structure approximately 20 x 25 m centered within one of the Roman insula.

The presence of Early Roman artifacts, levels, and apparently structures raises broader questions about the phases and locations of occupation of Early Roman Corinth.

Micromorphology and Roman-Era Resilience at the Harbor Town of Lechaion, Greece.

Daniel J. Fallu, Malcolm H. Wiener Laboratory for Archaeological Science

The site of Lechaion on the Gulf of Corinth, in use at least from the sixth century B.C.E. to the sixth century C.E., was one of the most important ports in Greece. Little is known, however, about the final abandonment of the harbor and its town in the sixth or seventh century C.E. Although previous historical and archaeological scholarship has associated this abandonment with a supposed tsunami that allegedly destroyed the nearby basilica, there is still debate over the dating of the abandonment and the strength of any tsunamis that may have occurred at the time. The Lechaion Harbor and Settlement Land Project (LHSLP) recently uncovered 2m thick deposits of marine sand and gravel that lie above and below Roman-era remains. Micromorphology was applied to better understand the environmental and anthropogenic processes that shaped the content of the fills, and whether they are the direct result of natural events or were redeposited through dredging during maintenance and reconstruction.

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 their subsequent alteration by environmental conditions. I applied micromorphology to compare sediments from fills and floors across the site to determine the availability of various marine-derived sediments over time and to understand how often the occupants of the site may have used marine sediments to rebuild or maintain the site. Twenty-five micromorphological blocks and one bulk sample were taken from two buildings, one adjacent to the entry channel of the inner harbor and one on

the banks of the inner harbor, or "lagoon." The mineralogical composition, microscopic structures such as bedding, and the shape of pebbles and ceramics were observed via thin-section and recorded in order to compare the transport processes that produced each deposit. In particular, a marine-derived sand containing basalt fragments appears both in a large, apparently natural deposit, and in a prepared floor, suggesting perhaps that an unusual natural marine deposit, perhaps from a tsunami, was later utilized for its unique appearance. While further analysis is required, micromorphological analysis at Lechaion promises a fuller understanding of the use and abandonment of the site as well as the resilience of populations on the seismically active Corinthian coast.

Roman Salapia–Medieval Salpi: Urban Transformations and the Shifting Material Legacy of a Port on the Adriatic Coast of Apulia

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

Recent studies of both long-lived and extinct towns in Italy, and the empire generally, have turned to interrogating the later centuries of habitation to model patterns of continuity and abandonment in myriad forms. The site of Salapia on the Adriatic Coast of southern Italy offers a compelling example through which to investigate the character of such settlement transformations over nearly 1,500 years. While the Roman settlement was primarily located on the extensive plain adjacent to the Salpi Lagoon, its western portion forms the initial deposit atop which subsequent occupations were installed, forming the topographic feature of the Monte di Salpi. The Monte's latest habitation phases are dated to the late 13th to early 14th century C.E., attesting to the spatial continuity of settlement through time. New evidence from the 2017 season allows us to theorize the shifts from the Roman and Late Antique phases to the medieval town, providing material manifestations of how such persistent but consistently fluctuating occupation strategies were brought about. It is a narrative written through negative archaeological features as much as through positive ones. Two new trenches, one on the Monte and one at its base on the plain, provide evidence of the link between the end of late antiquity and the emergence of the medieval community. With the start of the sixth century C.E., there was a marked reworking of previous spaces, still largely guided by the organization of the Late Antique town. More pronounced spatial changes began in the second half of the sixth to mid seventh century C.E., with huts constructed on accumulated abandonment strata, on different orientations from previous structures, and with the walls of the previous city likely barely visible: a testament to the slow degradation of the urban form. After this settlement's abandonment, the scars of numerous robber trenches document the systematic dismantling of many of the interred Roman ruins, likely coinciding with the emerging medieval settlement on the Monte, due to the scale and extent of this spoliation. New 13th-century structures were built with reused materials. The stone, mortar, threshold blocks, and even large slabs of *cocciopesto*, recognizable from the Roman settlement, were the everyday construction supplies that served as a visible reminder of the strong material relationship, spatially proximate but separated by centuries. As such, the creation of the medieval town was intimately intertwined with the dismantling of the Roman.

Neopalatial Urban Landscape Transformations at Bronze Age Palaikastro: A Microecological Narrative Through Urban Micromorphology
Rachel Kulick, University of Toronto

Archaeological sequences, such as those at Bronze Age Palaikastro, Crete, are defined by destructive events, which provide snapshots of cultural material in a particular time and space. Micromorphological evidence from these sequences can correspond to both occupational and transitional phases and assist in determining the extent to which landscape transformations affected a site during particular phases. The new micromorphological evidence from the 2013–2015 Palace and Landscape at Palaikastro (PALAP) excavations is indicative of multiple processes of transformation, related to different abandonment processes and various sediment sources in the area of the three newly excavated buildings, comprising a previously unknown neighborhood on the southeast edge of the main Bronze Age town. Moreover, the micromorphology of this urban area provides significant information on the surrounding environment—a microecological narrative. The results from this micromorphological study demonstrate nuances in site formation processes in the area of the three new buildings and establish a local, urban-environmental narrative in various occupational and transitional phases, such as the phases surrounding the Neopalatial (Middle Minoan[MM] III–Late Minoan [LM] IB) period.

This paper focuses on the micromorphological evidence from the Neopalatial (MM III–LM IB) period and the associated transitional periods. The micromorphological evidence suggests that slope processes had a significant impact on the area of the three new buildings (the new neighborhood area). The findings indicate that phases of gradual sediment accumulation, associated with flooding and aeolian deposition, occur during the MM III to LM IA periods; such features may indicate active slope or landscape management (e.g., terracing). Additionally, the evidence shows periods of increased slope aggradation, possibly relating to abandonment phases, in the LM IB period. Combined with other archaeological evidence, these features suggest a local aridity event in LM IB. These findings demonstrate the potential for social responses to compensate for environmental stresses at Palaikastro, thus tying a microecological narrative to larger regional narratives in east Crete and across the island.

SESSION 3J: Workshop
Turning Spatial with Pleiades: Creating, Teaching, and Publishing Maps in Ancient Studies

MODERATORS: *Tom Elliott*, Institute for the Study of the Ancient World, New York University, and *Sarah E. Bond*, University of Iowa

Workshop Overview Statement

In 2017, the AIA honored the Pleiades Community with its award for Outstanding Work in Digital Archaeology. Pleiades (https://pleiades.stoa.org) is an online, open gazetteer of ancient places, funded in large part by the National Endowment

for the Humanities, that expands and diversifies the data collected for the *Barrington Atlas of the Greek and Roman World*.

Spatial approaches, geographic analysis, and cartographic visualizations have been essential parts of archaeological practice for decades, proliferating and becoming more complex since the mid 1990s thanks to more affordable desktop GIS and improved technologies for remote sensing. Now we can position this practice within the interdisciplinary "spatial humanities," a loose set of approaches to modeling, contextualizing, and analyzing objects, texts, images, and information in spatial terms. Yet core scholarly and pedagogical tasks—particularly those involving the making of maps—remain challenging for many colleagues and their students. Poor availability of data (or just poor data) as well as a lack of guidance and training for software and methods underpin much of the problem. This workshop is designed to address these challenges head-on.

The workshop will focus on ways that Pleiades and its partner resources can be used to involve undergraduates in scholarly research; to prepare maps for teaching, presentation, and publication; and to connect one's own digital projects to the scholarly graph of Linked Open Data for ancient studies. In particular, we aim to teach participants—through hands-on instruction—to create dynamic digital maps that can be printed or placed in presentations for class use and to construct research plans and student projects that rely on "the Pleiades ecosystem" for source data and tooling.

We will begin with five-minute overview talks from each of the presenters, all of whom use Pleiades in their teaching and research. Each will address a key aspect of the workshop's theme. Then participants will be invited to visit—laptops in hand—one of several tables set up in the workshop space, each devoted to one of these key areas. We will highlight the arc from research problem or pedagogical goal, through data collection, to finished map or geographic data set, encouraging participants to move from one table to the next as they move along this arc. Participants will be invited to bring their own research or teaching data sets, but an example data set focused on material culture from the Augustan period will also be made available.

PANELISTS: *Rebecca Benefiel*, Washington and Lee University, *Lindsay Holman*, Ancient World Mapping Center, University of North Carolina at Chapel Hill, *Ryan Horne*, World History Center, University of Pittsburgh, *Gabriel Moss*, Ancient World Mapping Center, University of North Carolina at Chapel Hill, *Adam Rabinowitz*, University of Texas at Austin, and *Elizabeth C. Robinson*, University of Dallas Rome Program

SESSION 3K: Gold Medal Colloquium
Understanding the Long Term. Engagements and Entanglements Inspired by Ian Hodder

ORGANIZER: *Christopher Witmore*, Texas Tech University

Colloquium Overview Statement

Throughout his extraordinary career Ian Hodder has been at the leading edge of archaeological thinking. A pioneer in what would come to be known as post-processual archaeology, he has also remained true to the labors of a field archaeologist, with his numerous excavations and surveys (Wendens Ambo, Ledston, Kenya, Sudan, Calabria, Maxey, Haddenham, and Çatalhöyük), and with a balanced commitment to the study of material culture. Nearly a decade has passed since Steven Mithen described Hodder as "arguably the most influential archaeologist of his generation" in the Times Higher Education, and he has continued to push boundaries.

Inspired by the work of Ian Hodder this symposium brings together a diverse group of scholars, both colleagues and former students, to explore one of his longstanding interests, the long term. The long term suggests the structural background of events, the extended historical processes of change and enduring stability, the lengthy continua of objects and relations, and Ian Hodder has made contributions along all these angles. Melding the immediate, idiosyncratic detail of things small with the broad, long trajectories associated with stories big, participants in this session will take a specific object or technology, region or topos, theme or perspective, and explore its entanglements—that is, how humans and things are drawn deeper into mutual supports and dependencies amidst other humans and things—over the duration of its existence.

Persistent Presences: Conceptualizing the Long-Term in Archaeology
Gavin Lucas, University of Iceland

Archaeology has been frequently hailed as a discipline with unrivalled access to the long-term of human history, but beyond the obvious fact of dealing with a long chronology, how has the long-term been conceptualized? In this paper, I will explore three different senses in which archaeologists evoke the idea of the long-term: scale, tempo and longevity. The first deals with the temporal scale of the archaeological record, as encompassing both aggregate events (time averaging) and great time depth, as articulated in the theory of time perspectivism. The second deals with the rate at which change occurs and is associated with processes which unfold over long periods of time; here, the long-term is largely a question of speed, or more specifically, slowness and might typically be illustrated in the Darwinian notion of gradual evolution through selection and variation. The third and final aspect concerns the idea of the long-term as a question of the longevity of cultural phenomena, evoking long-term continuities such as the notion of enduring structures in Braudel's long durée or 'persistent places' in prehistory. Archaeological case studies often mix these different senses of the long-term (e.g.

the long durée as referring to both slowly changing and persistent structures). In concluding, I will reflect on the implications of all three senses in terms of the relativity of time and its articulation to both the human perspective (from which the long-term ultimately takes its reference) and non-human perspectives, ultimately raising a question mark over the usefulness of the concept of the long-term for archaeology: What is it the long-term, really?

The long term of the Reduced Scale: Aegean miniatures as Temporal Models
Carl Knappett, University of Toronto

A miniature is often conceived as a reduced scale replica that stands in for a full-scale counterpart—as with miniature votive weapons dedicated in a temple, for example. This logic of scale reduction implies a retrojective temporality, in which the miniature looks back to a prototype. However, many reduced scale artifacts do not act like this at all, but rather look forward to an as yet unrealized future—some architectural models are good examples of this kind of projective temporality. Rather than make a distinction between miniatures and models, we may see all reduced scale artifacts as models of some sort, with retrojective or projective qualities. This position then allows us to explore how such objects may work in and on time. I will explore in this paper various aspects of the materiality and temporality of models using examples from the Aegean Bronze Age, where reduced scale artifacts are especially prevalent. More specifically, I examine the extent to which miniature ceramic vessels from Minoan settlements and peak sanctuaries appear singly or in groups, and whether they are found together with other reduced scale objects. Where sets of models are identified, I suggest that they form microcosmic scenes intended to have either retrojective or projective effects. This argument should lead us to reflect not only on the time-oriented manipulation of reduced scale artifacts in the past, but also on our current attitudes to the long-term history of creativity and innovation in protohistoric art.

"It's an Old Technology": Entanglement and the Ethnoarchaeological Subject
Allison Mickel, Lehigh University

Entanglement theory offers new and important interpretive avenues for understanding the links and dependencies between humans and nonhumans in the past. At the same time, its comprehensive and material-centered basis, meanwhile, can be difficult to reconcile with the dialogic and community-oriented archaeology that Ian Hodder has also advocated. At Catalhoyuk, many programs and projects have been implemented to increase the participation of the local community in the archaeological fieldwork at the site, including community festivals, experimental archaeology research projects that involve community members, museum exhibits designed in collaboration with local community members, newsletters and comics distributed among nearby villages, a children's theatre initiative, as well as inviting site workers and their families to contribute to publications. All of these programs have aimed to produce a more "multivocal" archaeological record—one that includes debates and differing perspectives instead of a singular

interpretation of the past. Meanwhile, entanglement theory, with its incorporation of both the micro-scale and regional, millennia-long timelines, of both humans and nonhumans, might appear to risk foreclosing the possibility for nonspecialist community members to contribute meaningfully to interpreting the archaeological evidence. In this paper, I demonstrate how local community members' views on the past can be integrated with entanglement theory by analyzing how the contemporary community at Catalhoyuk claim ownership of the "old technologies" of the Neolithic people at the site. They emphasize that they continue to practice traditions and behaviors from the Neolithic era, and through these claims they challenge and add additional dimensions to entanglement as an interpretive approach. I will examine these challenges and new dimensions and ultimately argue that ethnoarchaeology—itself a rather well-established research "technology" within archaeology—forms an unexpected bridge between entanglement theory and inclusive, multivocal archaeological practice.

Sources of History: Lithic Quarries and Archaeology of the Long-Term
Tristan Carter, McMaster University

When one talks of archaeology's deep-time perspective, nothing rivals the long-term history of stone tool production and use, a series of techno-cultural traditions that spans more than three million years. A powerful—but under-theorized—means of engaging with some of these long-term histories is through an archaeology of raw material sources. This paper considers two such sites. Brief reference is made to the author's new work at Stélida on Naxos, a chert source exploited from the Lower Palaeolithic to Mesolithic (≥250,000 – 9000 BP), followed by a more focused consideration of Göllü Dağ in southern Cappadocia, an obsidian source whose use spans the Lower Palaeolithic to Late Bronze Age (< 1.1 mya – 3200 BP). The discussion considers how one constructs a meaningful narrative of place, practice, meaning, and value regimes over such long periods, a temporal framework that furthermore encompasses radically different actors, from *Homo erectus* hunter gatherers, to palace kings. Such an endeavor takes us into uncharted temporalities, forcing the question: can a *longue durée* approach have its limits?

On the Deep Time of Agrarian Entanglements: The Case of the Argive Plain
Christopher Witmore, Texas Tech University

This paper considers agrarianism and the very long term in the Argive plain, Greece. Engaging with Ian Hodder's entanglement theory, it contrasts two different perspectives on the plain: 1) an elite-focused, linear trajectory of ever increasing complexity; and 2) an object-oriented, fluctuating picture of agrarian rapports with soils, plants, implements, other animals, dwellings, communities, weather, and land. Situated against the radical transformations in agriculture that characterize the mid-twentieth century (monoculture, the overuse of water, fossil fuels, the dramatic loss of farmers, etc.), a different perspective on the deep time of the plain emerges where multiple continua defined by soil and moisture, seasonality and scarcity, hardship and burden are capped off by new modes of living

underwritten by an imbalanced agricultural regime. Ultimately, this paper raises fundamental questions about the nature of archaeology vis-à-vis history that have profound implications for our understandings of the very long term.

Tangled Up: Rethinking Trajectories of Complexity and Inequality
Rosemary Joyce, University of California, Berkeley

Entanglement is complexity. But not complexity as the archaeology of complex societies thought it. In this paper, I seek to draw on entanglement as a theoretical resource to argue for understanding inequality itself as more complex, more entangled, less linear, and above all, less inevitable than is usually assumed in archaeological analyses. My case study is the interface between Classic Maya state systems and the societies to their east in Honduras, once called chiefdoms, where over more than three millennia complexity as entanglement developed without enabling extreme inequality. The history of Classic Maya Copan fits classic models of the inevitable rise of inequality relatively well. In its earliest centuries, Classic Maya states were dominated by ruling families that used written history, commemorative monuments, and ties to more powerful foreign states to consolidate power. Retrospective historical monuments created three centuries later describe the Copan state as continuing from those origins, with increasing volume of monumental construction, incorporation of the surrounding region, and even domination of less complex societies to the east suggested. Yet in the lower Ulua river valley, in the midst of those supposedly dominated societies, something quite different is apparent over the same period (roughly 450-800 C.E.). Multiple towns maintain independence from Copan, and none comes to dominate even its nearest neighbors. Each town fosters the growth of artisan traditions, producing painted pottery used for serving everyday meals, and ceramic sculpture central to religious ceremonies. When the leading family in one town, Travesía, fostered carving of unique marble vases that they exchanged with Maya nobles in Belize and peers in Costa Rica, it was not able to parlay these foreign ties, symbolic capital, or control of labor into greater standing in the Ulúa valley or even greater inequality within the town itself. Taken as a whole, the network of towns in this region, tied by significant and ongoing exchanges, proved more stable than the more hierarchical political system centered around Copan, which in the end of its history drew on materials from the Ulúa region as luxuries and markers of status. Entanglement allows us to see histories like these unfold that were not foreordained, and that always could have been otherwise. This is consequential in a world in which extreme inequality is increasingly treated as a natural legacy of human society.

Archaeology as Long-Term History Thirty Years On
Ian Morris, Stanford University

This paper combines two of Ian Hodder's longstanding interests—archaeology as long-term history (his edited volume of that title appeared in 1987) and the politics and structures of archaeology. I begin by asking how archaeology as long-term history has fared in the last thirty years, looking particularly at a new school

of broadly evolutionary approaches, which ask what long-term history can tell us about where humanity is headed. Some members of this school, such as Jared Diamond, Yuval Noah Harari, and David Christian, have reached massive audiences, but have had much less impact on archaeology and history as academic fields. This brings me to my second topic, of why archaeologists and historians remain so firmly committed to traditional disciplinary structures. I trace this back to the ways the two fields were institutionalized in late nineteenth-century European and American universities, which strongly discouraged attempts to link texts and artifacts together into continuous, long-term narratives.

SESSION 4A: Joint AIA/SCS Colloquium
Roman Freedmen: Community, Diversity, and Integration

ORGANIZERS: *Dorian Borbonus*, University of Dayton, and *Rose MacLean*, University of California, Santa Barbara

Colloquium Overview Statement

This panel brings together scholars in ancient history, epigraphy, and art history to present new research about the integration of freed slaves (*liberti*) into Roman society. Papers address, from a variety of perspectives, the problem of defining "the freedman" as a social category while also acknowledging the diversity of this population, the vibrancy and complexity of its cultural practices, and its close involvement with other groups, including the aristocracy and the freeborn plebs. Together, the contributions offer new insights into freedmen's social position and advance methodologies that illuminate textual and material sources from novel perspectives.

Previous scholarship has raised the question of whether *liberti* generated a discernible subculture and, if so, on what basis. Studies of freedmen's funerary practices have emphasized the distinctiveness of ex-slaves' "epigraphic habit," when compared to trends among the freeborn. Recent interpretations of this phenomenon have challenged the theory that legal status was itself a major concern for ex-slaves and have accounted for other interests; especially the stability of the nuclear family after the pressures of enslavement had been alleviated. These arguments suggest key points of unity among former slaves, who shared the fundamental experiences of captivity and manumission, even if they differed in countless other respects.

At the same time, scholars have noted the heterogeneity of the Roman freed population and have investigated some of its constituent elements: including artisans, traders, and other professionals; staff in large households; members of burial clubs and trade guilds; freedwomen; and the familia Caesaris. In many cases, *liberti* participated in cultural, political, and economic activities alongside individuals of various ranks, whether slave or freeborn. Thus Petersen (2006) has dismantled the category of "freedman art" and situated ex-slaves' material culture within its local contexts in compelling ways. Laird (2015) takes a comparable approach to the *Augustales* by concentrating not on legal status but on how monuments commissioned by members helped to shape urban space.

Overall, these studies support the idea that manumission initiated a process of integration whereby slaves transitioned from "social death" to become members of their communities. Yet the precise mechanisms for and extent of freedmen's integration into various segments of Roman society remain open for discussion. In "Fitting in: Freedmen Adaptation in the Roman World," Marc Kleijwegt argues that votive dedications to the Genius of cities in the Latin West reveal one avenue through which freedmen claimed civic inclusion. Emphasizing integration even further, Kristof Vermote's contribution, "Equally Different: The Performative Function of Late Republican and Early Imperial Elite Discourse on Roman Freedmen," questions the scholarly consensus about the degraded status of *liberti* by parsing letters of recommendation written for former slaves. The other two papers highlight, in different ways, freedmen's distinctiveness with respect to other groups. In "The Gens Togata: Costume and Character in Freedmen's Funerary Monuments," Devon Stewart analyzes the sling toga in Augustan funerary portraiture to argue that freedmen's monuments engaged in conversation with one another more extensively than they imitated elite forms. Rose MacLean's paper, "Roman Manumission and Citizenship in a Provincial Context," uses the army as a test case for examining how the patron-*libertus* relationship functioned as a marker of identity in regions where Roman practices contrasted with local customs. In combination, these papers show that the integration of *liberti* in Roman society did not necessarily amount to assimilation into mainstream culture.

DISCUSSANT: *John Bodel*, Brown University

Fitting In: Freedmen Adaptation in the Roman World
Marc Kleijwegt, University of Wisconsin, Madison

Studies on freedmen in the Roman world have focused extensively on the legal process of manumission and on the standing of freed slaves in the community. I am much more interested in how slaves experienced the transition from slave to freedman and what they did in order to fit into their—new or old—environment once they had gained their freedom. Within that period of uncertain length, it is unknown how they were treated by their fellow-citizens. If they were artisans, did they perhaps suffer loss of income because freeborn customers declined to pay? In *The Interesting Narrative of the Life of Olaudah Equiano: Gustavus Vassa*, the author reports that a free black carpenter was put in jail for asking for his payment from a "gentleman" for whom he had worked. Later the carpenter was chased out of Georgia on the false accusation that he had threatened to set fire to the "gentleman's" house. It is not unreasonable to assume that freedmen in the Roman world were treated to similar acts of hostility, but this cannot be ascertained because the evidence is not there. What is there are satirical attacks on the wealth and pretensions of freedmen. We can rightly assume that former slaves married other freed slaves, or their own slaves, and engaged in social and economic activities together with other freedmen, but it is largely uncertain how they attempted to adapt themselves to the larger world as citizens of their communities. This paper will discuss one possible avenue that freed slaves explored in a number of cities in the western

part of the Roman Empire. Amongst dedicators of votive dedications to the Genius of the city, there is a remarkably high number of freed slaves, which may suggest that freedmen and freedwomen claimed a place by involving themselves in the religious cult that conveyed most powerfully the idea of living together.

Equally Different: The Performative Function of Late Republican and Early Imperial Elite Discourse on Roman Freedmen
Kristof Vermote, Ghent University

Despite exponentially increasing attempts to break down analytical boundaries between freedmen on the one hand, and freeborn members of the *plebs media* on the other, the assumption of a status-specific discourse on freedmen has been consistently left unchallenged. In fact, many modern studies take for granted the notion that the Roman elite's discourse on ex-slaves was highly sui generis, serving as it did to highlight, consolidate, and naturalize the latter's inherent inferiority (which is often succinctly captured in the—not wholly unproblematic adage—*macula servitutis*, or "stain of slavery"). The aim of this contribution is twofold. Firstly, by applying methodological and theoretical insights from both Critical Discourse Analysis and Corpus Linguistics to a genre-crossing sample of literary sources, it sets out to question the validity of the claim that there existed a specific set of "libertine qualities." Particular attention will be paid to the pervasive belief that the semantic scope of certain virtues or appraisals was subtly but meaningfully transformed when framed within the context of a patronage relationship. The main argument is that this notion blatantly disregards the performative function of such descriptions in the on-going process of social negotiation. The second part of the paper shifts focus to the Latin letters of recommendation as a concrete case study. It challenges the ingrained assumption that commendations of freedmen were structurally different from those of *ingenui* because the former allegedly had to endorse and vouch for an essentially different "kind" of person (an often tacitly accepted premise, once again closely associated with the *macula servitutis* interpretative framework). Besides arguing that the very same strategies of accentuating social and symbolic capital are discernible in recommendations of both freed and freeborn (elite), this contribution more generally postulates the existence of a "public transcript" that fundamentally respected the principled equality of freed citizens in society.

The Gens Togata: Costume and Character in Freedmen's Funerary Monuments
Devon Stewart, Angelo State University

Recent scholarship has underlined the significance of costume with respect to self-representation in the Roman world in terms of both personal adornment and visual art. Discussions of the toga in particular often center on elite traditions, for it is elite interests which drove both the history and the development of the toga. Yet the power of the toga as a marker of civic identity must have resonated especially with Roman freedmen, for whom it embodied not only citizenship, but also the restoration of legal personhood achieved through manumission. The ubiquity of

the toga in the figural funerary monuments of Roman *liberti* underscores its significance in this regard. In the group reliefs, commissioned primarily by freedmen from the early first century B.C.E. through the Augustan period, male subjects wear the toga almost exclusively. Furthermore, the overwhelming majority of men wear the sling toga, eschewing the contemporary toga *exigua* and more voluminous Augustan toga. Other scholars have attributed Roman freedmen's preference for the sling toga to their generally conservative tastes in portraiture, evident also, for example, in their preference for veristic portraiture well into the Augustan period. However, other evidence suggests that such artistic anachronisms, whether used alone or alongside more contemporary elements of style or coiffeur, bore distinct ideological meanings in the context of the group reliefs. While all toga forms signified citizenship, Roman identity, and ancestral tradition; those meanings were nuanced through the styling of the toga and the context in which it was worn. This paper considers how some Roman *liberti* employed the toga as part of their broader program of public self-representation. The visual evidence demonstrates that within the corpus of group reliefs, the sling toga came to embody more than just civic and national identity. It stood for rigorous self-control and discipline, as well as the rejection of manual labor that was so intrinsically linked with servile status in Roman culture. Moreover, the rejection of the more fashionable Augustan toga in favor of the older sling toga demonstrates that Roman *liberti* were less interested in keeping up with the fashions of Rome's aristocratic elite than either the elite themselves or contemporary scholars would have it. Instead of emulating elite models exclusively, the apparent conservatism of the group reliefs suggests that Roman freedmen engaged most actively with the monuments commissioned by their immediate peer group, other *liberti* of similar social and economic standing.

Roman Manumission and Citizenship in a Provincial Context

Rose MacLean, University of California, Santa Barbara

This paper investigates the distinctiveness of Roman freedmen (*liberti*) in provincial contexts where Roman-style manumission contrasted with local customs. I suggest that manumission may have functioned as a marker of political and cultural identity for patrons and freedmen alike. Greek discussions of the Roman slave system emphasize the unique practice of enfranchising slaves who had been liberated through formal channels (*SIG*3 543; *Dion. Hal. Ant. Rom.* 4.22). Latin authors also convey an awareness that the enfranchisement of *liberti* set Rome apart from its neighbors and, moreover, link this idea to core questions of self-definition (Livy 1.8.6 and 2.5.9; *Tac. Ger.* 25). In such contexts, *liberti* are distinguished above all by their level of integration into the Roman community.

The literary ethnography of manumission in turn prompts the question of how these differences were perceived on the ground. Using procedures like *vindicta* required access to Roman law. Manumission therefore had the potential to distinguish individuals with Roman standing from *peregrini*, as well as to separate former slaves according to the process through which they had gained their freedom (as suggested by *IGRR* 3.801-802). It is in this context that Pliny asks Trajan to bestow Roman citizenship on several ex-slaves, including the physician Arpocras,

who is described as *peregrinae condicionis manumissus a peregrina* (*Ep.* 10.5). Reflecting similar concerns, an *epikrisis* document from Egypt asserts citizen status for the son of a woman who had been manumitted by *vindicta* (*PDiog.* 6-7).

In addition to affecting juridical standing, participation in Roman modes of manumission indicates an engagement with Roman culture. To provide one example of this phenomenon, I examine representations of the patron-freedman relationship on military tombstones. Josephus noted both the size of the legions' servile component and the training that these slaves received (*BJ* 3.69). His comments indicate that slaving practices distinguished the Roman army in certain provincial settings. Although soldier-freedman commemorations are relatively infrequent (they comprise 3-10% of relationships attested among military populations in the regions studied by Saller and Shaw 1984), close analysis of the relevant artifacts offers a glimpse into how manumission interacted with other cultural markers. I argue that both patrons and *liberti* capitalized on the ethnographic significance of Roman manumission to stage identities in death.

SESSION 4B: Colloquium
Whose Life? The Display of Athenian Painted Pottery

ORGANIZER: *Robin Osborne*, University of Cambridge

Colloquium Overview Statement

Athenian pottery painted between 600 and 350 B.C.E. provides us with thousands of images which cannot be identified with any mythological story and which show activities familiar from ancient texts as part of daily life: warfare, athletics, the symposium, revelling, cultic activity (e.g., sacrifice and libation), courtship and sexual intercourse, buying and selling, marriages and funerary rites, and even more. Such images are clearly not snapshots of life—we might be able to convince ourselves that revellers in the streets were naked, but warriors will not have gone into battle in only greaves and a helmet. But equally these images cannot be independent of life; the scenes on pots may not show the particular experiences of those who used them, but most scenes show activities which they could imagine themselves and others experiencing.

If pottery does not reproduce random views of Athenian life, do the images on pots tell us about Athenian life at all? Can we hope to tell where painterly fantasy ends and observed life begins? Should we follow those scholars who think that, if any life is shown, it is the life of those Etruscans who fueled the valuable export market, and not the life of Athenians at all?

To answer these questions, the speakers in this colloquium focus on those features that appear to make the problem most intractable—fantasy, ambiguity, incongruity, and changing tastes. They argue: that we can use the undoubted fantasy of the satyr to highlight where Athenian sensitivities lay; that ambiguities of status reveal how Athenian categories differ from our own—and even from those embedded in their own laws; that incongruous objects point up debates over behavior and identity; that the choice of where images are placed on pots and with what

other images they are combined can guide us to their shock value; and that the way the choice of images varied over time reveals much about Athenian attitudes.

The imperative to understand what pots do and do not show is nowhere greater than in the museum, where images on pots constitute our best chance of showing how ancient Athenians lived. Marking the opening of a new "daily life" gallery at Boston's Museum of Fine Arts, this colloquium tries to offer some answers to the question of how we are to understand the nature of the lived experience under the spotlight.

Fantastic Lives and Where to Find Them: Everyday Satyrs on Athenian Dining Vessels
Alexander Heinemann, Albert Ludwigs Universität Freiburg

Whose life? The question of how to relate the images on Attic pottery to the daily experiences of contemporaneous viewers is a double one. First, it addresses the relation of these images to a reality lying outside of them. Second, it necessarily engages with the question of which of these experiences are quotidian, and which are marked and conceived of as extraordinary. As a working hypothesis, we might posit that painters and purchasers of Attic pottery had only limited interest in depicting the everyday. The subjects worth depicting are those that have exceptional significance to the single viewer and to society: marriages, funerals, feasting, and war. In this perspective, life is not characterized by acts repeated on a daily basis, but by outstanding events.

A great many surviving images seem to support this interpretation, but nagging doubts persist. Paradoxically, a good way to address those doubts is to look at images whose primary reference certainly lies outside lived reality: images of the fantastic realm of satyrs. Three case-studies from satyr imagery on red-figured symposium vessels of the fifth century reveal the pitfalls of our hermeneutic assumptions.

1) A series of images depict satyrs preparing, fetching or supplying food of various kinds; they dovetail nicely with analogous scenes showing human protagonists. But viewers are not presented with glimpses from a laborer's hard day; the painted vessels provide the viewers/drinkers with an army of little helpers contributing to their sympotic well-being.

2) Courtship scenes too come in both mortal and Dionysiac versions. These rather static male-meets-female scenes are frequently set in a fairly neutral space. But are viewers to imagine these encounters as actually taking place? Look closely at these scenes and the figures depicted—both fantastic and not—conjure up not specific acts but specific attitudes.

3) Roughly contemporary images of satyr fathers playing with their sons display a charmingly intimate portrait and lack any mortal counterparts. These caring satyr fathers can hardly be construed as "figures of the other" displaying an attitude abhorred by contemporary citizens; instead they offer positive images of family interaction—albeit a kind of interaction that was deemed unfit to depict with mortal males.

Taken together these case studies suggest that the interest of non-mythological scenes is rather like the interest of mythological scenes: they offer commentary on the actions of the viewer and draw attention to attitudes rather than activities.

The Class of Objects in Athenian Vase Painting

Wolfgang Filser, Winckelmann Institut, Humboldt Universität zu Berlin

In discussing images on Attic black- and red-figure symposium vases, mainly from the period between 530 to 500 B.C.E., I focus on the ambiguous nature of some of the objects depicted. On the one hand, these represent items of luxury culture; on the other, they stand for tools and clothing which clearly belong to the sphere of physical work and lower classes. The cap, for example, that designates foreign mercenaries also appears as fashionable headgear for rich horsemen and revelers; the strigil that indicates the well-to-do athlete, appears also as a tool in the hands of hard working *banausoi*.

The polysemous qualities of such objects point to harsh divisions in Athenian society. On the surface depicting the wasteful life of the small elite, they also allude to the very different life of unpropertied citizens, noncitizen workers, and slaves. Thus images that depict the luxurious life of the well-off few, accomplish the difficult task of also commenting at the same time on the social reality of those "invisible ones" who produce the wealth consumed by the rich in their banquets, horse-breeding, and athletics (which are themselves three main topics of vase-painting). I trace how, over time, vase-painters introduced a discourse about social poles—the unpropertied classes on the one hand, the landowners on the other—by skillfully deploying the ambiguity of objects (and of some figures) in their images.

The usual sharpness of iconography was deliberately softened by the vase-painters in these images to open up a more complex discourse. But who were they addressing by doing so, and why? After all, the life and aspirations of the elite certainly served as the main incentive and inspiration for the images on the pots, which were meant to entertain the revelers at banquets in the first place. What was the attraction of these ambiguous modes of representation favored by vase-painters (i.e., workers) for their most important clientele: the non-working Athenian elite? The openness of the references—implying the greatest possible social spectrum—created a tension within the system of imagery, which must have been quite obvious at times when cups and pots bearing certain complementary images were part of the same drinking party. That this subtle introduction of social reality was understood and welcomed by the well-to-do symposiasts, too, has important political implications.

The Challenge of Finding the People on the Pots

Christine Kondoleon, Museum of Fine Arts, Boston

In organizing a gallery dedicated to *Daily Life in Ancient Greece* we faced a dilemma from the get-go, namely how closely do pictures on pots relate to lives of ordinary people? How, without writing an essay on the walls, could we both satisfy the expectation of visitors that they were going to see what ancient life was

really like, while also making them aware of the knotty issues of visual interpretation? Our answer? A large case that introduces the public to a selection of objects that are somewhat challenging to interpret and that raise interesting questions about just how to read a Greek vase. I offer two examples.

The Boston oinochoe (99.527) has a scene of a man and an attendant cutting up an animal. Should we see this as an everyday scene of food preparation, or as a ritual act? Is this man priest or butcher? The fact that the Greek word for butcher and sacrificer (*mageiros*) is the same might suggest that these two activities were not as far apart as all that. With more than a third of the Athenian calendar taken up with religious festivals, should we be drawing a line between the sacred and secular, and if so, where? Such images help visitors at once relate to the ancient families and scenes of the ordinary and also understand that they are engaging with a very different culture.

The wine cup with a defecation scene in its tondo (Res.08.31b) is even more immediately startling. What are viewers to make of this man bending forward to defecate and cleaning himself with a stone? Was the vase-painter creating a caricature to entertain the viewer/drinker at the symposium, or was he amusing himself? The disgust of the scene arouses prurient interest, but does it reflect ancient humor?

Just how quirky was this humor? Can we convincingly persuade museum visitors that vases with such scenes were made for export to Etruria? Should we be suggesting to our visitors that Etruscan purchasers were like them, keen to see in the many ordinary scenes on Boston vases (a visit to the shoemaker, the pressing of oil) glimpses of an alien life? Or suggesting that while the Etruscans bought these vases because they had a voracious appetite for all sorts of scenes, the painters themselves were offering a humorous view of everyday life? Perhaps we learn more about ancient laughter than Athenian butchery.

War on Vases: Wandering Variations?
François Lissarrague, l'Ecole des Hautes Etudes en Sciences Sociales

One of the earliest subjects in Attic vase painting, after funerary rituals, is war. Individual warriors in combat, ranks of soldiers fighting, individual armed men in otherwise peaceful scenes—all these appear across the range of archaic Athenian pottery, and go on appearing through the fifth century. However as soon as we examine the scenes more closely, we see that the way in which this major aspect of ancient life was depicted varies widely according to period.

Thirty years ago, in *A City of Images*, François Lissarrague sketched some aspects of the problem, but this chapter now needs to be revised and qualified in depth. Our knowledge of and access to the full visual repertoire of Athenian painted pottery has been immensely improved by the creation of the Beazley Archive online. As a result, we can now have a more nuanced vision of the temporal development of the iconography of Athenian vases, and it is possible in revisiting this part of the repertoire to describe innovations and changes in a more precise way.

But this paper is not primarily about what changes occurred, but about why they occurred. My question is: how are we to explain these changes in the sorts of scenes in which soldiers were depicted? I suggest that three different kinds of

answer can be given: the taste and idiosyncrasies of individual painters; changes in Athenian society; and historical events giving rise to changes in related iconography.

In this paper I will use specific examples to show the strengths and weaknesses of these different explanations—where such explanations can convincingly be employed, and what the limits are of such interpretations.

Lifestyles: How Greeks Came to See Life Differently
Robin Osborne, University of Cambridge

The enormous variety of images on Athenian painted pottery suggests that Athenian painters of every period painted all sorts of scenes. That impression has been reinforced by the way in which classic studies, like *A City of Images* juxtaposed images from pots painted a century and more apart. When scholars have noted that, in fact, the scenes chosen change over time, it has almost always been in relation to scenes of one particular sort of activity—for instance Alain Schnapp's *Le Chasseur et la cité* (Paris, 1997) and Judith Barringer's *The Hunt in Ancient Greece* (Baltimore, 2001). And because the changes have been seen with regard to a single activity, they have been explained in relation to that activity: scenes of hunting changed because the dominant practices of Athenian hunting changed. We only have to consider scenes of sexual activity to see that such an explanation is not very plausible: the change from showing heterosexual intercourse to almost never showing heterosexual intercourse is surely not because heterosexual intercourse had become a rare practice.

In fact if one studies these scenes of everyday life not single activity by single activity but across the full range of scenes, what becomes apparent is that the changes in which sorts of scenes are shown are all related. In particular, the active and competitive scenes popular in early red-figure pottery—whether of athletes taking part in games, running, throwing the javelin, etc—or of warriors fighting in all sorts of situations or busily preparing themselves for war by donning every possible item of arms and armor, are almost universally replaced by inactive and contemplative scenes of athletes scraping themselves down with a strigil, or warriors pouring a libation or taking their helmet from a wife or mother. The choice of scene has changed because the kind of interpersonal relationship, and human engagement with the world, that painters want to represent has changed.

Taking the uniformity of such iconographic change seriously both solves some problems—it renders, for instance, extremely improbable that iconographic choices were determined by Etruscan customers—and creates new challenges. For rather than the representation of an activity changing because that activity changed, the changing iconography is driven by an entire change in lifestyle and attitudes. Behind what is painted on pots lies a profound change in how Greeks saw the world, and what they valued.

SESSION 4C: Workshop
Race, Politics, and Pedagogy

MODERATOR: *Sarah Levin-Richardson*, University of Washington

Workshop Overview Statement

Race and politics intersect with "Classical Art and Archaeology" in numerous ways: from the role of Winckelmann and other German intellectuals in establishing the (anti-Semitic) boundaries of the discipline in the 18th century, to the nation-building exercises of large-scale excavations and museum acquisitions in the 19th century, to the classicizing imagery of Neo-Nazi recruitment posters on current U.S. campuses. In this workshop, we examine how the legacy of race and politics affects how we teach "Classical Art and Archaeology," and discuss best practices for teaching "Classical Art and Archaeology" to various publics (including in museums and to various student bodies). We invite the audience to participate in these discussions and share their experiences, as well.

The workshop opens with Becky Martin, who addresses some of the challenges faced when teaching race and representation in antiquity, including our lack of training to discuss these issues, sensitivity surrounding these issues, and our inadequate critical vocabulary to describe these ideas in the classical world. She then shares a bibliography, in progress, from sources on "where to begin?" to a series of case studies. Genevieve Gessert then discusses how to incorporate modern politics into teaching ancient monuments, considering the ways the Ara Pacis Augustae has functioned as a site for modern explorations of religion, race, gender, and identity. In the process, she has students consider Mussolini's Mostra Augustea della Romanità and the debate over the Richard Meier enclosure.

The next two panelists share their experiences teaching "Classical Art and Archaeology" to diverse student bodies. Diana Ng asks how instructors of Western Art survey courses can create an inclusive environment for students from a broad range of ethnicities, cultures, and religions, through discussing her choices of which works to cover and how to discuss them, as well as her responsibility as a conduit of the "Western" tradition at an institution with a large African-American and Arab-American student population. Shana O'Connell shares how formal analysis can be used to empower diverse student bodies: from identifying familiar features in ancient art (e.g., hair texture), to thinking about the limits of representation, chronology, culture, and style.

Sanchita Balachandran presents the results of a workshop held at the Annual Meeting of the American Institute for Conservation (AIC) on how race, gender, and sexual orientation affect dynamics of power and privilege in the field of conservation, sharing short- and long-term strategies for acknowledging and addressing issues of inclusion and equity.

PANELISTS: *S. Rebecca Martin*, Boston University, *Genevieve Gessert*, The American University of Rome, *Diana Ng*, University of Michigan-Dearborn, *Shana O'Connell*, Howard University, and *Sanchita Balachandran,* The Johns Hopkins Archaeological Museum

SESSION 4D: Colloquium
Collective Identities and Memory: The Epigraphic Evidence

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

Colloquium Overview Statement

Responding to the growing interest in identities and collective memory in Classical studies, this panel exploits the evidence of Greek and Latin inscriptions to explore the transformation of collective identities and the shaping of cultural memory in the Mediterranean world (ca. 600 B.C.E.–ca. 400 C.E.). The particular focus of the panel is on the construction of identities, taking into consideration their diverse typology (ethnic, social, civic, religious), the mechanisms of memory, and the interrelation between collective identity and cultural memory.

The panel also demonstrates how theories associated with identity and memory studies—such as Jan Assman's model of cultural memory (1992. *Das kulturelle Gedächtnis: Schrift, Erinnerung und politische Identität in frühen Hochkulturen.* München: Beck), Hans-Joachim Gehrke's concept of "intentional history" (2001. "Myth, History, and Collective Identity: Uses of the Past in Ancient Greece and beyond". In *The Historian's Craft in the Age of Herodotus*, edited by N. Luraghi. Oxford), and Paul Ricœur's study on active interventions in strategies of forgetting (2004. *Memory, History, Forgetting.* Chicago: University of Chicago Press., 502)—offer new perspectives to epigraphic studies. With regard specifically to the epigraphical material as a source for the study of collective identity and memory, Angelos Chaniotis (2013. "Mnemopoetik: Die epigraphische Konstruktion von Erinnerung in den griechischen Poleis". In *Medien der Geschichte. Antikes Griechenland und Rom,* edited by O. Dahly, T. Hölscher, S. Muth and R. Schneider. Berlin: De Gruyter) has established that "epigraphically transmitted texts" ("epigraphisch uberlieferten Texte") have authors and addressees and that they are products of composition and intention. With his concept of "Mnemopoetik" (poetics of memory), he demonstrates how the epigraphically transmitted texts construct the memory: first of shared events (collective memory) and second of the traditions of the distant past (cultural memory).

Greek and Latin inscriptions provide important information on the construction of collective identities and on the integration of the past in a community's self-image. The bequest made to the boule and demos of the Ephesians in 104 C.E. by a wealthy Roman equestrian named Caius Vibius Salutaris is a case in point. Recorded in a long but fragmentary inscription (G.M. Rogers, 1991. *The Sacred Identity of Ephesos: Foundation Myths of a Roman City.* London: Routledge.), his bequest: offers the structured and constructed picture of the past by integrating the sacred identity of the city; reflects the situational ideology of the present by ideologizing the city social structure; and establishes a web of power for the future by consolidating Ephesus' relations with the political actors of Asia Minor. On the other side, inscriptions not only have a mnemopoetic function, but their commission also reveals an intention to change or omit parts of the collective identity. In the alliance between the Athenians and the Bottiaians of 422 B.C.E., exactly ten years after the latter revolted against the former, a pledge was undertaken by the two sides

to forget the past injuries ("mē mnēsikakein"). Similarly, some of these mnemo-poetic texts insert the relevant community into a broader geographic perspective by establishing or emphasizing relationships in the Mediterranean world, as has been highlighted by Carmine Ampolo (2014. "La Anagraphe o Cronaca di Lindo e l'Occidente greco: l'orgoglio dei Lindii e la memoria del passato di Rodi." *ASNP* 6(1):295-324) apropos of the Lindian Chronicle and the Greek West in particular.

The papers in this panel address the issues of collective identity and memory from diverse perspectives encompassing Greek and Latin epigraphical traditions from the Mediterranean world, around 600 B.C.E.–ca. 400 C.E. A diverse epigraph-ical material (treaties, alliances, decrees containing historical narratives, honorific inscriptions, dedications, grave inscriptions, epigrams, mythographic texts, reli-gious texts and curse tablets) in this large geographical span allows a holistic con-ceptualization of the examined phenomena. In addition, the wide chronological range offers a deeper understanding of the development and formation of collec-tive identities and aspects of the epigraphic construction of memory.

Colonial Narratives and Cultural Memory: Views from Halikarnassos
Marco Santini, Princeton University

This paper investigates how the relationship between a colony and its mother city plays a role in the definition and construction of the colony's civic identity and cultural memory, using inscriptions as primary sources. The paper examines the case of Halikarnassos, most notably through the analysis of the city's use of the colonial narratives concerning its foundation by Troizen.

The themes of foundation and colonization, the "beginnings," are central in Halikarnassian "mnemopoetics," just as they are, more generally, in the self-con-sciousness of ancient societies, constituting the topics at the core of the selective process of definition of a community's shared memory (L. Preta 1991. *La narrazione delle origini*. Roma-Bari: Laterza; N. MacSweeney, ed. 2014. *Foundation Myths in Ancient Societies. Dialogues and Discourses.* Philadelphia: University of Pennsylva-nia Press). According to the most popular version, Halikarnassos was founded by Troizen, and the role of *oecist* is usually attributed to a certain Anthes. This rela-tionship between Halikarnassos and Troizen was already known to Herodotus, and it produced narratives that passed down in literary tradition (Callimachus, Strabo, Pausanias, etc.) and that were hinted at in epigraphic records issued by both of the cities (M.H. Jameson 2004. "Troizen and Halikarnassos in the Helle-nistic Era." In *The Salmakis Inscription and Hellenistic Halikarnassos*, edited by S. Is-ager and P. Pedersen, 93-107. Odense: University Press of Southern Denmark). As I shall argue, epigraphic evidence from Halikarnassos, of both private and public character, testifies not only to the use of the Troizenian tradition in the shaping of the city's identity, but also to the city's willingness to modify the main version of its colonization according to the logic of self-representation and construction of cultural memory.

Some Hellenistic inscriptions from Halikarnassos refer explicitly to the role of the *genos* of the founder Anthes (the Antheadai) as a distinctive mark of glory. The fragmentary, metrical dedication of Posis to his deceased mother (Merkelbach-Stauber, SGO I, 01/12/13) commemorates the woman as an illustrious member of

the family of the Antheadai, but at the same time celebrates—with a monument in public display—the *genos ktistôn*, being an example of a private memorial that glorifies the most ancient past of the whole community.

The link between genealogical discourse, colonization, and collective identity is also prominent in the list of priests of Poseidon Isthmios, who fulfilled the priesthood *kata genos* (*Syll*.3 1020). The genealogy is established on mythological grounds in the first part, and on historical grounds in the last entries. The main function of the list, which is actually an updated transcription of an older list, is to show the prestige of the ancestry of those who were in charge of the priesthood and considered themselves part of the stock of the Antheadai. But, by acknowledging the existence of a *genos* of founders whose progenitor was Poseidon himself, this list—just as the older one did—contributes to the (re-)construction of the city's remote and prestigious past and to the definition of the community's mythical identity.

Finally, in the late Hellenistic epigraphic poem called "Pride of Halikarnassos," the Troizenian narrative loses its preeminence and the traditional founder Anthes is accompanied by a variety of co-settlers coming from different areas of the Greek world. Also, the poem does not follow the main tradition in the isolated localization of the first nucleus of Halikarnassos, purposefully modifying this aspect to emphasize the inclusion of the native element since the very beginning of the city's history (M. Santini 2016. "A Multi-Ethnic City Shapes Its Past: The 'Pride of Halikarnassos' and the Memory of Salmakis." *ASNP* 8(1):3-35). The different ways in which Halikarnassos deals with its Troizenian past are not, however, in contradiction: the accumulation of colonial narratives in the "Pride" is an effective tool for the city to demonstrate the richness and prestige of its own past.

Toxic Lead. A Geo-Chronological Analysis, Textual Examination and Comparative Study of Sicilian Defixiones as Evidence for a Putative Sicilian Religious Milieu

Thea Sommerschield, University of Oxford

Did such a thing as a "Sicilian religion" exist? Is it observable and can it be meaningfully studied through the analysis of the interactions in the religious mentalities and ritual practices of Phoenicians, Greeks, and indigenous peoples in western Sicily from the VI to IV century B.C.E.? Such is the underlying aim of this paper. The methodological novelty of my approach consists in my decision to explore alternatives to the concept of "*ethne*" to examine how alternative factors may have been instrumental in shaping the complex and intriguing religious interactions in western Sicily. Postcolonial perspectives on ancient colonization may indeed have encouraged scholarship to critically assess the pertinence of its stance and applicability of its methods, but they have also sparked a sense of "scholarly unsettlement," as demonstrated by the controversy surrounding the thorny concept of hybridity. It is therefore argued that a "return to the origins" of hybridity is necessary to interpret its impact upon a putative Sicilian religion. This will be methodologically achieved by prioritizing the search for religious—rather than ethnic—identities.

The category of epigraphical evidence for ritual practice considered in this paper consists of Sicilian curse tablets (*defixiones*). To approach this category of

evidence most effectively, I.Sic.Def, the first exhaustive and updated digital database of all existing Sicilian curse tablets to be systematized, has been created (Sommerschield forthcoming in Prag, J.W.R. 2016. I.Sicily. [online] Sicily.classics. ox.ac.uk. Available at: http://sicily.classics.ox.ac.uk/). After having discussed the patterns and evidence emerging from the study and data plotting of the *defixiones* in I.Sic.Def, I suggest that although *defixiones* alone probably do not constitute decisive evidence toward the hypothesizing of a "Sicilian religion," they do illustrate the specificity and originality of this genre exclusive to Sicily compared to the rest of the Mediterranean (especially Attica), and furthermore demonstrate how the commonly held notion that "all cursing habits derive from the Ancient Near East" needs further redefinition, as the Sicilian *defixiones* evidence points otherwise.

It is, in my view, a misguided approach to study the tablets exclusively to ascertain "who came first," and thus prove a Greek influence on Sicilian materials or a Sicilian tradition initiated by Greek curses. The situation is simply far more complex. Following Versnel's (1991. "Beyond Cursing: The Appeal to Justice in Judicial Prayers." In *Magika Hiera: Ancient Greek Magic and Religion*, edited by C.A. Faraone and D. Obbink, 60-106. Oxford: Oxford University Press) distinction between conditional curses, non-conditional curses, and prayers for justice, my paper illustrates how Sicilian curses cannot be considered from the same perspective as their mainland Greek counterparts. Despite the final purpose of all curses being the same (willing punitive consequences against an action perceived by the curser as illicit), the intentions guiding the inscribing of curses was different: the abundance of Greek "prayers for justice" directed to future magical vindication of the status quo is in contrast with the Sicilian use of *defixiones* directed instead to the past. The exclusive use of *defixiones* in Sicily could be read as a fascinating local interpretative process which strengthens the possibility of a Sicilian idiosyncrasy autonomous from any other type of cursing in the history of the Mediterranean. Conversely, the prescriptive character of ancient Near Eastern and Egyptian curses has been correlated to sacred laws and royal edicts. This is a distinguishing factor from Sicilian curses, which have instead too often been indicated as a direct progeny of Near Eastern cursing practices. Contrary to Near Eastern conditional curses, *defixiones* are intrinsically non-conditional and performative deeds: they do not admonish, they act.

Greek, Phoenician, Babylonian, Egyptian and Sicilian curses share several important features due to constant and overlapping surges of diffusion throughout times and places, and yet their essential specificities are most informative of the differing attitudes demonstrated by each culture and place to cursing. In the case of Sicilian *defixiones*, such specificities can only be explained from the perspective of an autonomous Sicilian evolution rising from a common Mediterranean religious practice.

Identity Politics in Athenian Decrees of the Empire
Alicia Ejsmond-Frey, Princeton University

My research looks at the language of mid to late fifth-century Athenian decrees concerning Athens' allies and how it forged a sense of collective identity. The way that the Delian League progressed into the Athenian empire, and specifically the

development of the "language of Athenian imperialism" has long been a topic of interest to students of the Athenian empire. An increase in "strikingly realistic" or "proprietorial" language has been mapped onto various timelines but almost all with the basic agreement that such a progression can be traced (e.g., H. B. Mattingly 1996. The Athenian Empire Restored: Epigraphic and Historical Studies. 361-385. Ann Arbor: University of Michigan Press. Originally published as Mattingly, H.B. 1974. "The Language of Athenian Imperialism." *Epigraphica* 36: 33-56; Rhodes, P.J. 1992. "The Delian League to 449 BC." In *CAH* 5. 2nd ed., edited by D.M. Lewis, J. Boardman, J.K. Davies and M. Ostwald, 34-61. Cambridge: Cambridge University Press; contra Osborne, R. 2000. *The Athenian Empire.* 4th ed. Lactor 1. London: London Association of Classical Teachers). Recently Polly Low has warned against trying to track a straightforward linear progression from "non-imperialistic" to "imperialistic" language (Low, P. 2005. "Looking for the Language of Athenian Imperialism." *JHS* 125:93-111), arguing that analyzing inscriptions in terms based on a view of Athenian imperialism derived from Thucydides is biased, and in some cases circular.

With this in mind, my research looks at other aspects of Athens' relationship with her allies, and in particular how she forged a common identity with them. I investigate how the Athenians positioned themselves with regard to their allies, Persia, and other states, in the epigraphic evidence during this period. The oaths that the allies are made to swear are particularly instructive; it has been noted that gradually allegiance to "the Athenians and their allies" becomes simply allegiance to "the Athenians," but the ways in which these oaths still create a collective identity for the Athenians and the particular ally swearing the oath, and the fact that this identity is sometimes pitted against an enemy either internal (e.g., informers, deserters) or external (e.g., Persia), are less commented on. My paper creates a more nuanced picture of the way that Athens dealt with her allies in this period, looking at instances of the promotion of a collective identity or unified group rather than the ways in which Athens oppressed or alienated her allies. For example, the requirement for copies of the decree to be set up in both Athens and the allied city (e.g., in *IG* I³ 10, 37, 62), often at the ally's expense, has been taken as a sign of the latter but in some cases could be meant as a joint action aimed at emphasizing similarity and solidarity. This is suggested by the fact that such payment clauses are found not only in punitive but also honorific decrees (e.g., *IG* I³ 101). The purpose of my paper is to examine these and other examples to uncover the ways in which Athens negotiated identity politics in decrees concerning her allies.

In Intimum Maris Hadriatici Sinum. Venetic Elements in Latin Inscriptions: Patterns of Continuity in the Epigraphic Habits of the Northern Adriatic

Francesco Cassini, Columbia University

Among the populations submitted by the Romans in the course of their expansion in the Italian peninsula, the case of the Veneti represents a peculiar case, whose outcome was the creation of a hybrid social and cultural identity, clearly visible, even in later times, in the epigraphic habits of the region.

The gradual assimilation of Northern Italy (Gallia Cisalpina), conducted by the Romans between the third and the first century B.C.E. and often problematically

labeled as "Romanization," is a topic that has not been fully developed in its historiographical relevance. Local publications, as well as sectorial research, have often hindered the reconstruction of an integrated framework, which we instead possess for the southern part of the peninsula. It would be more beneficial to combine literary, epigraphic, and archaeological sources, in an attempt to restore the vividness of the details to a long-lasting, complex historical process, too often dismissed as a mere, progressive military submission.

Special interest should be given to the Northeastern sector, previously inhabited by the only non-Gallic population beyond the river Po (Padus). The so-called *Venetorum angulus* (Liv., 5.33.10), which would later represent the core of the future Augustan "X Regio Venetia et Histria," was occupied by the Veneti (Heneti) (G. Fogolari, A. Prosdocimi, M. Gamba, and A. Marinetti. 1988. *I veneti antichi. Lingua e cultura.* Padova: Programma). The latter were an Indo-European population of alleged Aegean origins, which was linked to the Greeks not only by well-established trade patterns, but also by the epic tradition of the Trojan war (Antenor, Diomedes).

Differently from the Gallic tribes, whose submission was gained by the Roman Republic through long and bloody military campaigns, the Veneti benefited from a strong and protracted friendship (*amicitia*) with the Romans. As allies of their armies during the Second Punic War, they represented a consistent bridgehead for the Roman takeover of the Cisalpina, which was definitively sanctioned by a series of leges promulgated between the Social War (ca. 90 B.C.E.) and the Augustan age.

However, well before the first century B.C.E., the Veneti were already bicultural, having adopted over time not only the Latin language but also many of the Roman laws and civic institutions. This phenomenon, which is often called "autoromanization," deserves a more complex investigation. The term itself, in fact, does not take into account the pivotal importance of the Venetic heritage in the shaping of the socially and culturally hybrid identity that this territory preserved even after centuries of Roman domination in the northern part of the Adriatic. In this regard, the epigraphic sources, combined with the archaeological finds, allow us to have a meaningful insight for both the Late Republican and Imperial periods.

A first, major issue is the preservation of multiple aspects of the ancient Venetic language, especially regarding personal onomastics (G.B. Pellegrini, and A. Prosdocimi. 1967. *La lingua venetica.* 2 vols. Padova: Istituto di glottologia dell'Università; Circolo Linguistico Fiorentino), mainly detectable in funerary and honorific inscriptions. An even more striking aspect is the continuity in social structure, territorial occupation, and resource exploitation. The case of Padua is particularly interesting: the abundance of Paduan people belonging to the equestrian ranks, as testified to by Strabo, seems to match the wide diffusion of the Venetic term *equpetars* in Latin inscriptions of the Late Republic. The analysis of these phenomena through epigraphic evidence, before and after the superimposition of Roman law and the transformation of the Venetic cities in Roman *coloniae and municipia*, is the aim of this paper. Working with archaeological remains and literary sources, I draw a consistent and updated historical framework for what appears to be an almost unique and fascinating case in the manifold and dialectic relationship between Rome and Italy.

From Memory to Oblivion: Family, Social, and Communal Identities in Aphrodisias

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

The purpose of this paper is to investigate how identity agents shaped the cultural memory of late Hellenistic and Roman Aphrodisias. Following the distinction of Assmann (1995. "Collective Memory and Cultural Identity." *New German Critique* (65):125-33) between communicative memory (jointly experienced events) and cultural memory (events of a fixed and remote past), we are able to unveil multiple layers of memory and identity in the several levels of social organization in Aphrodisias as they are revealed in the public and private inscriptions: the families and the social groups used epigraphic documentation as grounds for acquiring rights and privileges in the political life of Aphrodisias, while the city used the epigraphic manifestation of cultural memory in order to preserve and store knowledge.

At the first level, individual families were involved in a competition to demonstrate their deep ancestral roots in the public sphere. In what can be examined under the principle of "prior tempore, potior jure," they relied on the memory of their family's tradition in order to establish their dominion over the political and social life of their polis. Aphrodisians were involved in an informal rivalry to prove their origin from the most distinguished and glorious families, who had undertaken embassies, magistracies, leitourgiai, and construction of public buildings. This competitive nature emerged in a series of honorific inscriptions and decrees, where either their family tree – with up to eight generations – was recorded, or their ancestors' munificence always preceded the praise of an honoree's public action. For example, around the time of Augustus, following the tradition of his family, Kallikrates, the son of Molossos, repaired and replaced the statues of his ancestors (*I.Aphr.* 12.402) and restored their dedication to either Ceasar or Octavian (*I.Aphr.* 13.116). His efforts focused on the restoration of a broken continuity of memory, which in turn contributed to the establishment of his social position.

At the next level, the two upper social groups of Aphrodisias ("the first citizens" and "the descendants of the men who co-founded the fatherland") as well as the members of the senatorial and equestrian classes were engaged in an antagonistic benefaction race. The "first citizens," as the prominent members of the poleis, are collectively characterized, and the citizens who commemorated their descendants' role in the foundation of Aphrodisias constituted a non-institutionalized sociopolitical elite, which stressed the offices, the benefactions, and the achievements of their ancestors in their honorific inscriptions.

At the highest level, the city itself created its own cultural memory and identity. The Aphrodisians set up a dossier of inscriptions on the north wall of the Aphrodisias theater in two phases, starting in ca. 224 C.E. and 243 C.E. respectively (Kokkinia, C. 2015-2016. "The design of the "archive wall" at Aphrodisias." *Τεκμήρια* 13:9-55.). In these records, a visitor to Aphrodisias in the second half of the third century could read that, by taking the side of the Romans, Aphrodisians not only envisaged themselves as saviors and benefactors during the Mithridatic Wars, but also proclaimed outspokenly that "without the rule of the Romans we do not choose even to live" (*I.Aphr.* 8.3). The same visitor could read that Octavian

referred to Aphrodisias and its residents in one of his letters as "this one city I have taken for myself out of the whole Asia. I wish these people to be protected as my own townsmen" (*I.Aphr.* 8.29). It can be argued that this dossier of inscriptions attested privileges of Aphrodisias, which not only served as a commemorative monument of the ancestral past and a representation of collective memory, but also as a constant reminder of the city's glorious past to the outside visitor.

Illustrating the mechanisms of collective identity and the construct of the social memory as subject to continual changes, this paper offers a holistic approach to the aforementioned phenomena at multiple levels of society at Aphrodisias.

SESSION 4E: Colloquium
Accessing Subjectivity in Antiquity Through Texts and Artifacts

ORGANIZERS: *Seth Estrin*, University of Chicago, and *Sarah Olsen*, Amherst College

Colloquium Overview Statement

This panel explores ancient subjectivity as a topic of critical investigation for the modern scholar. By subjectivity, we refer to experiences that are necessarily individually felt even when they are configured by broader cultural practices—experiences such as emotion, desire, kinesthesia, sensory perception, memory, trauma, illness, and disability. Delving deep into the literary and material remnants of antiquity, some scholars in recent years have uncovered ancient discourses and vocabulary for describing such felt experiences. Others engage contemporary philosophical and scientific research, using theories of affect and cognition to give life to the human actors who created the objects and texts they study.

Despite these developments, the particular force of subjectivity—its ability to destabilize distinctions between the personal and the cultural, between subject and object, between past and present—has rarely been addressed as a problem of method across subfields. What claims, we ask in this panel, do we rely on when we try to access ancient subjectivity? How have ancient subjectivities survived into the present, or to what extent can we reactivate them? How is our ability to do so colored by the nature of the textual and visual evidence we have at our disposal? How do ancient subjectivities interact with our own when we attempt to historicize them from our own subjective vantage point?

Our panel brings together specialists in both literature and material culture, both Hellenists and Romanists, in order to gain fresh insight into how subjectivity might serve as a point of critical investigation in the study of antiquity. Panelist #1 excavates the ancient Greek *psukhê* from beneath the modern psyche, complicating both ancient and contemporary conceptions of the psychological subject and setting out in broad terms some of the challenges of studying subjectivity. Two pairs of papers follow, each focusing on a related kind of subjective experience—the sensory and the somatic, respectively. Within each pair, however, are papers that engage very different theoretical frameworks, source materials, and cultural contexts. The first set of papers focuses on experiences of vision and viewing in relation to Greek theater and Greco-Roman painting. Panelist #2 uses the

imagery of mirror-gazing in Euripidean tragedy to explore the cultural charge of reflective surfaces in the construction of female subjectivity. Panelist #3 considers the embodied, unstable conditions under which panel paintings were viewed and represented in other media, using ancient discourses on optics to reassess the relationship between subjective viewing and the aesthetics of illusionism. Turning to the felt body, the second set of papers attends to experiences of trauma, illness, and healing in Greek sanctuaries and Late Antique literature. Panelist #4 explores how anatomical votive dedications at ancient healing sanctuaries functioned as mechanisms for creating intersubjective bonds between individuals with necessarily personal afflictions. Panelist #5 locates the somatic experiences of rape and trauma at the core of Augustine's approach to textual criticism, and so finds a historical model from the chronological margins of antiquity for foregrounding subjectivity in the interpretation of Classical literature. In so doing, this final paper brings us full circle to the concerns of Panelist #1 by calling on us to confront our own subject position in the study of the ancient world. Our two organizers—one a specialist in ancient literature, the other in material culture—will introduce the panel and lead a final discussion.

The *Psukhê* and the Subject
Victoria Wohl, University of Toronto

Modern scholars generally investigate the ancient subject from the perspective of the modern subject: whether we conceive of the latter as Cartesian (self-knowing) or poststructural (self-divided), we seek a familiar self in antiquity. This approach risks ahistoricism (not to mention narcissism) and elides the radical differences that make the study of antiquity so valuable. Those differences are particularly glaring when one examines the *psukhê*. From Snell on, many have sought the origin of the modern psyche in the ancient *psukhê*, but even a cursory study of Aristotle's *Peri Psukhês* (for example) shows the gulf between the two: bodily organ or ghostly double, life-force or animating energy, the *psukhê* is decidedly not amenable to psychoanalysis—and that is what makes it heuristically valuable. What does the ancient subject look like if we measure it not against the modern psychological subject but against this quasi-material, quasi-corporeal soul-stuff?

Starting from this question, my paper views the *psukhê* as a "negative space" against which we might see the outlines of a psychological subject. I focus on the relation between *psukhê* and *logos* in the fragments of Heraclitus. Snell proposes that Heraclitus discovered "a new concept of soul." With its boundless, profound, and self-augmenting *logos* (DK12 B45, B116) this *psukhê* is a subject of reason and speech that grounds Heraclitus' novel self-reflexivity (B101). But the relation between *psukhê* and *logos* in Heraclitus is more complex than Snell suggests. On the one hand, the "profound *logos*" (B45) of the *psukhê* is the structure of the physical universe itself; the soul is one material element among others in the endless cycle of transformation. On the other hand, though, *psukhê* is fundamentally separated from the cosmic *Logos* by its relation to time: *Logos* is eternal (*aei*, B1), but the time of the *psukhê* is finite: not *aei* but *aiôn* ("life-span," B52). That temporal schism sets the *psukhê* forever out of tempo with the revolutions of the cosmos and opens a space within the *Logos*—both the cosmic structure and Heraclitus' philosophical

account of it—for the emergence of a subject. That subject appears neither as material life-force nor as rational self-reflexive agent, neither *psuhkê* nor psyche, but as a potentiality activated by the non-identity of the two.

The Other Side of the Mirror: The Self and the Abyss in Euripides' Hecuba
Ava Shirazi, Princeton University, Princeton Society of Fellows

In the third stasimon of Euripides' Hecuba, amid descriptions of festivities and joy, the chorus sings of a Trojan woman "gazing into the endless light of her golden mirror" (925-926). These lines evoke a deep and intimate moment of self-reflection, which is suddenly disrupted by the shouts and clamor of the city, signaling the fall of Troy (927-953). In this paper, I discuss why Euripides conjures a woman's private experience with her mirror before the complete destruction of her city. I examine, more specifically, how the mental and visual experience of self-reflection—as conceptualized in the classical world—makes this reversal of deep tranquility to utter devastation so profound. At the same time, I explore the tension between reflection as a subjective experience par excellence and its cultural (and idealized) representations in the classical imagery.

In the first section of the paper, I show how this ode brings to mind broader cultural conceptualizations of a woman's experience with a mirror in Euripides' era. First, by looking at depictions of women's beautification routines in vase paintings and literature (e.g., BA216946, BA215718; AP.VI,18), I argue that the mirror was conceptualized as both an important meditative vehicle and as an object with which to explore one's entire sensory apparatus—two aspects of reflection which, I argue, Euripides makes full use of in this ode. Second, I offer a new interpretation of the lines "in the endless light of my golden mirror." By looking at actual Greek mirrors, their iconography, and their representation in literature (e.g., Aristoph,*Cl.* 749-52; *Xen.,Cyrop. 7.1.3*), I show how reflection was associated with broader ideas about vision and light in the fifth and fourth centuries B.C.E.

Reflection, in short, brought about a deep engagement with the sensory and cognitive experience of the self in classical times. In the second section of this paper, I demonstrate how Euripides explores precisely this experience in order to create a "psychological thriller"—a process whereby a most heightened private and intense moment of self-reflection is used in order to bring about a complete reversal in one's life. Here, I offer two other parallel examples from Greek tragedy, namely Euripides' *Medea* (1156-1162) and a Sophoclean fragment (fr. 659).

In my conclusion, I make some final suggestions regarding the extent to which such representations of self-reflection can be regarded as ancient conceptions of subjectivity.

Parrhasius's Curtain and the Angles of Vision
Patrick R. Crowley, University of Chicago

This talk examines the kinesthetic perception of panel painting in Greco-Roman visual culture. More specifically, it considers certain discourses on optics and Pyrrhonian skepticism that take up the physical and relational aspects of such pictures

with specific regard to the shifting gaze of a mobile observer. Ancient thinkers seem to have been particularly vexed by the phenomenology of panel painting (Sextus Empiricus, for example, remarks on how it looks smooth from one angle and rough from another) and how its protruding surfaces could be perceived as hollow depths, and vice versa. While relatively few panel paintings survive, none of them situated in their original domestic contexts, representations of how such paintings were hung do exist, whether in stage-like settings such as those indicated at Oplontis, or small paintings set against altars as votive objects in sacral idyllic landscapes. Unlike frescoes that are constitutive with the flat wall on which they are painted as their material support, panel paintings are usually depicted as being canted at some angle projecting towards or receding from the viewer. In order to furnish a famous example that shows how these artistic practices and philosophical discourses rub against one another, I take up Pliny's account of the legendary contest between the painters Zeuxis and Parrhasius. As is well known, Parrhasius won the palm by depicting a curtain that deceived Zeuxis, whose painted picture of grapes fooled some birds who flew up to peck at them, but not his human rival. Ever since then, and especially since the Renaissance, the story of the two Greek painters has epitomized Western mythologies of vision, representation, and the ontology of painting itself. Here I consider not only the aesthetic category of *trompe l'oeil*, but also the extent to which a deeper, if necessarily speculative, consideration of how the physical display of Parrhasius's curtain—whether canted or flat, seen head-on or from an oblique angle—operated as a determining feature of its psychological persuasiveness.

Votives, Bodies, and Intersubjective Viewing in Greek Healing Sanctuaries

Calloway Scott, New York University

This paper addresses the subjective experiences of illness and healing in the context of Greek healing temples in the Classical and Hellenistic eras. In it, I examine the dynamic between votive dedications of marble and terra-cotta body parts offered in thanks for healing, and the viewer of such corporeal representations. Specifically, I consider the role these votives played in creating personal meanings for sick viewers through "intersubjectivity," that is, a somatic affect provoked by the perception of other embodied subjects. I argue that confronting assemblages of anatomical *ex-votos* both constituted the "presence" of other subjects and created the impression of a wider community of fellow sufferers, aiding the sick in constructing meaning for their own illness and pain.

Recent scholarship has highlighted anatomical votives as polysemic expressions central to the articulation of human-divine relationships in the Graeco-Roman world. While this work has generally focused on *ex-votos* as one-way communications between their human dedicants and divine recipients, here I theorize the relationship between sick viewers, their bodies, and the embodied experiences encoded into votives. Indeed, a variety of material and written sources confirm that anatomical votives were intended to communicate directly to a viewing audience. Temple inventories from healing sanctuaries and inscribed narrative records of Asklepios' cures indicate that suppliants were expected to tour the sanctuary and to inspect carefully the votive dedications made there. Herondas' fourth

Mimiambos—staged as a dialogue concerning the votive statuary on display at the Koan Asklepieion—discloses how such scrutiny of corporeal depictions might stimulate imaginative, even sympathetic thoughts about the bodies and affective states of others. In light of this, I suggest that anatomical *ex-votos*, as mimetic substitutions of the bodies of others, promoted reflections about the experiences of the subjective self (intersubjectivity). Moreover, I consider how, in the social context of the sanctuary, such assemblages would have reinforced ritual modes of attention to one's body as it was integrated into a larger community of worshipers. This situates votive dedications at the center of a complex set of interpersonal relations connecting individuals across time and space, investing illness with meaning that was culturally patterned, yet subjectively generated. So too, such a view of ancient votives and intersubjectivity blurs traditional subject/object oppositions, helping reframe our assumptions about the communicability of "private" experiences.

Textual Healing: Physical Trauma and Literary Education in Book 1 of *De Civitate Dei*
Stefani Echeverría-Fenn, University of California, Berkeley

Throughout *De Civitate Dei* and *De Excidio Urbis Romae*, Augustine calls the 410 C.E. sack of Rome the "flagellum piae castigationis" and continuously invokes the metaphor of a father whipping his child in his acknowledgement of its traumatic psychological sequelae for the individual members of his congregation in Carthage. The sack, he argues, ought not to be read as abject devastation but as a form of pedagogical correction. Rejecting the applicability of the term "perditio," Augustine aligns the sack with corporal punishment of Roman school children—a form of pain that was normalized and institutionalized throughout the Roman world, and so was readily recognizable to his Roman male readership. Adopting this imagined shared history of childhood corporal punishment as a theoretical framework for building a hermeneutics of rape in both Augustan and Biblical literature, Augustine implies that the stakes of correctly reading rape in Livy (for example) go beyond the imperative to situate such literature in a proper Christian context. Rather, correctly reading trauma in Livy is seen as integral for the project of correctly situating and "reading" one's own fractured and vulnerable body and psyche.

As I argue in this paper, the significance of Augustine's project is two-fold. First, it is a particularly dramatic instantiation of what Augustine has argued in earlier works such as the *De Magistro*: that the ability to properly interpret texts is integral to the process of forming a truly independent subjectivity that can analyze and reject corrupting communal and outside forces on both an intellectual and a kinesthetic level. Second, his project takes up the mantle of a larger understanding of the formation of the self in earlier Roman literature through pain and bodily humiliation. While a self that is constituted by bodily suffering may become visible in a more dramatic way with the advent of Christianity, there is a clear tradition of pre- and non-Christian Latin authors referencing corporal punishment and its attendant physical trauma as foundational to how texts become "written on the body" of individuals and ultimately become a critical part of one's own subjectivity in ways that wholly reject modern conceptions of mind-body dualism (cf.

Juv. 1.15, Hor. *Ep.* 2.1.70, Quint. 1.14–18). Focusing on the recurring image of the "*iugum*" in both the educational writings of Quintilian and the New Testament, I explore how it is subsequently taken up in Augustine's images of pain as constituting the self. While the yoke is most famously known as a mark of servitude in the gospels, reading this image against non-Christian Latin literary metaphors shows how Augustine's insistence on a mimetic, embodied practice of learning is central to the constitution of the self.

SESSION 4F
Walking through Roman Cemeteries

CHAIR: To be announced

Sealed and Concealed: Looting in Roman Cemeteries
Liana Brent, Cornell University

Roman interest in the contents of tombs is evident in a variety of textual, epigraphic and archaeological sources, in which there is a dynamic interplay between what ought to be sealed and concealed, and the mortuary deposits that become multiply-authored sites of post-depositional rituals, among other, more nefarious activities. According to Strabo, bronze vessels and terracotta reliefs from Corinth were so admired that no grave was left unsacked and the antiquities flowed into Rome (*Geography* 8.6.23). From Livy's *Ab Urbe Condita* (40.29), workers on the estate of Lucius Petelius uncovered the tomb of Numa Pompilius near the Janiculum Hill, which lacked any trace of human remains or any objects after so many years of decay. In addition to these literary examples, recent archaeological discoveries have much to contribute to the picture of post-burial encounters with the dead.

This paper explores ways of imagining, knowing, and removing tomb contents in archaeologically documented examples of grave opening. Such an investigation takes into account various factors that motivated, hindered or limited acts of grave opening and looting, including the type of grave structure and the ease of access within a cemetery, the identity of the deceased—whether known or imagined—as well as the time between death, decay and reopening. More specifically, my case studies address questions of how ancient looting practices manifest themselves in the archaeological record of Roman cemeteries, and how we can distinguish these activities from more recent acts of disturbance or looting. Furthermore, this paper examines how knowledge of a tomb's contents could survive or perpetuate, and why certain tombs were targeted for looting in cemeteries that otherwise display minimal signs of grave robbing.

To answer these questions, I turn to non-monumental cemeteries of the non-elite, using the recent or ongoing excavations at Musarna (Lazio) and Vagnari (Puglia) to explore how the position and preservation of human skeletal remains are vital for understanding and reconstructing missing objects. Using methods from archaeothanatology (the archaeology of death and burial), this paper investigates how we can infer the state of corporeal preservation or decomposition at the time of ancient or modern looting, as well as what this reveals about ancient interest in graves that were sealed upon the deposition of the deceased.

A Walk in the Park: Strolling at the Porta Nocera Necropolis
Kaja J. Tally-Schumacher, Cornell University

Nearly 40 years ago, Wilhelmina Jashemski observed that garden tombs and their paintings have been "only incidentally mentioned by scholars," a criticism that remains largely true today. When these structures are analyzed, they are generally treated as a distinct category isolated from larger discussions regarding ancient life. This paper calls on scholars to reconnect marginalized structures to their urban fabric and to larger discussions about ancient life. I propose that tomb 19ES from the Porta Nocera Necropolis at Pompeii illustrates that such garden tombs directly engage today's most dynamic discussions on class, taste, and strolling.

Although at first glance the shape and paintings of tomb 19ES may appear unexceptional, I argue that a formal analysis of the façade suggests that the decoration on this garden tomb manipulates conceptions of inside and outside so that the viewer on the street is transformed into a portico-stroller, the row of tombs into garden beds, and the pomerial road into a portico. I propose that this sophisticated façade garden painting is directly in dialogue with the kind of contemporary and highly sophisticated play of inside and outside that has been explored by Bergmann at Oplontis, where garden paintings deconstruct walls and play with movement of the body and movement of sight. While O'Sullivan and others have explored the significance of strolling in the domestic and public context (focusing more heavily on elite strolling), its role in identity and gender construction, and the movement of the body through an urban space, my paper argues for its presence in the funerary context—a new and unexplored setting.

The location of tomb 19ES at the Porta Nocera Necropolis is particularly significant, as the necropolis features a high density of freedmen. Thus it is widely perceived as lower class and of inferior quality to the Porta Ercolano Necropolis, where we might expect to find such decoration. My paper argues that the translation of such a sophisticated motif into a new context and the reference to portico strolling—an activity charged with elite associations—undermines the identification of the Porta Nocera Necropolis as inferior, challenging our perception that taste and innovation were the province solely of the elite.

The Northern Roman-Period Burial Area at the Vicus Martis Tudertium
John D. Muccigrosso, Drew University, *Sarah Harvey*, Kent State University, and *Stefano Spiganti*, Intrageo

Before recent excavation at the Umbrian site of the Vicus Martis Tudertium along the Via Flaminia, several partially preserved Roman-period tombs in the area were already well known. This talk reports on our work to document these tombs and explore their context via excavations undertaken.

Seven seasons of work have confirmed the location of a Roman-period settlement at the putative site of the *vicus*. This location had been suggested in the 16th century, based in part on written evidence of the Flaminia, and by the early 20th century it was widely accepted, even in the absence of direct excavation. Material evidence included a series of inscriptions in the vicinity of the settlement (mainly

associated with the church of S. Maria in Pantano) and the presence of a pair of Roman-period funerary monuments less than a kilometer to the north.

The first, a fairly large *opus caementicium* core of a funerary monument, had long been known and in fact given its name to the area: "il mausoleo." Briefly published by Giovanni Becatti in his 1938 work on the ancient remains in the area of Todi, the monument had inspired local legend and encouraged treasure hunting, which may have contributed to its toppling in the 1980s. Later in that same decade, commercial excavation associated with large gravel deposits in the immediate vicinity of these ruins revealed a course of stones belonging to a Roman tomb *a dado*. Although emergency excavation was conducted by the Italian archaeological superintendency, this monument has never been satisfactorally published.

Our work this summer involved extensive documentation of this second monument, as well as exploration of the area around the destroyed "mausoleo," which seems to have been thoroughly uprooted.

In addition we conducted excavation of the area between these two monuments to document the state of preservation of the ancient strata. The extensive presence of the gravel deposits which had led to the discovery of the second monument meant that geophysical methods were of limited utility and we also have concerns about the extent of those commercial excavations.

While no further funerary monuments were uncovered, we did confirm the predicted extension of the road which cuts through the settlement area around the church and which we have identified as the Flaminia itself. In addition, what remains were found are consistent with the wide-scale despoilment encountered in the settlement area and seen in the existing monuments.

A Monumental Tomb alongside the Via Latina near Fregellae (Ceprano, Italy)

Carlo Molle, Soprintendenza Archeologia del Lazio e dell' Etruria Meridionale, and *Sara Marandola*, Università degli Studi di Cassino e del Lazio Meridionale

Fregellae, a Latin colony founded in 328 B.C.E at the confluence of the rivers Liri and Sacco in southern Latium, was one of the most important Roman colonial foundations until its eversion by the same Romans after an uprising in the year 125 B.C.E. The city emerged in fact as a protagonist in many different phases of the Republican history such as during the Samnite wars, the Hannibalic war and the Eastern wars. Therefore, Fregellae reflects the extraordinary rise of Rome to hegemony in the Mediterranean area by being faithful to the Urbs for two centuries through both good times and bad fate, and the influence of its leaders was considerable, even to Italic social developments of the 2nd century B.C.E.

By the seventies of the 20th century, important and extensive excavations are made in the city, mostly directed by the archaeologist Filippo Coarelli, and a interpretive archaeological park was opened to the public. Between Fregellanum (present-day Ceprano) and Fregellae, a long stretch of the Via Latina has been discovered during a fortuitous excavation of the local Archaeological Superintendence in the summer of 2013 (C. Molle and S. Marandola, "Un tratto della via Latina e un sepolcreto tra Fregellanum e Fregellae (Ceprano, Frosinone)," in *Lazio e Sabina 11. Atti del Convegno. Undicesimo Incontro di Studi sul Lazio e la Sabina Roma*, *4-6 giugno 2014*, a cura di A. Russo Tagliente, G. Ghini, Z. Mari, Roma 2016, pp.

185-192). Along the road a large basement for a funerary monument was found. Most likely erected before the destruction of Fregellae, there was also a funerary enclosure and an ustrinum located close to the basement. A little farther away, at least three individual tombs from the Imperial age were also found. It was the first time that a part of the monumental necropolis of Fregellae had been uncovered.

This study investigates the large basement by trying to reconstruct its original shape and its relation to the surrounding structures, in order to clarify the archaeological context, and attempting to understand how the necropolis of Fregellae was used even after the destruction of the city, becoming the sepulchral area of the imperial village of Fregellanum in the territory of Fabrateria Nova, the city built ex novo to seal up the disappearance of Fregellae. Ultimately, the excavation revealed a glimpse of the ancient history of this land and confirmed, in particular, the complete assimilation of the urban models from the executive classes of Fregellae, which is clearly reflected in the monumentality of the basement.

Sibi et Suis: Agency, Hybridization, and the Tomb of Eumachia
Amanda K. Chen, University of Maryland

Building off the seminal work of Antonio D'Ambrosio and Stefano De Caro on the Porta Nocera necropolis in Pompeii, one of the few publications to address the architectural and decorative components of the monument, this paper aims to examine and understand the tomb of Eumachia in Pompeii as a potent, unique demonstration of self through its distinct form and decoration. Unlike the well-known and imposing building the priestess dedicated in the Forum, Eumachia's tomb has received much less scholarly attention, despite its grand size and unusual construction. This paper seeks to underscore the importance of the funerary monument as a dynamic—equally as important—expression of identity.

Composed of an exedra bench, monumental niched façade, and an Amazonomachy frieze—seemingly disparate features—the tomb of the Pompeiian priestess Eumachia adheres neither to any of the loosely defined "types" of funerary monuments found in the Roman world, nor to those of her contemporaries in Pompeii. Instead, it's unusual character was carefully engineered to publically and permanently assert Eumachia's identity as a powerful, wealthy woman who wished to align herself with the first family of Rome, while advertising her Greek roots and elite status in Pompeii.

The monument will be studied in context to unpack the unusual form, location, and decoration of the tomb, which invokes architectural and decorative precedents throughout the ancient Mediterranean world, such as the theaters, schola tombs, and the Mausoleum at Halicarnassus. Together, these features distinguish the monument from all others in the city and ask the learned viewer to draw on their knowledge of elite Mediterranean culture, by juxtaposing diverse types of architecture and decoration into a single, imposing structure. Both performative and interactive, the tomb physically engages and captivates passersby. By drawing in viewers through the use of varied referents, the structure serves to assert and sustain the memory of its patroness, Eumachia, in perpetuity. Accordingly, a study of visual theatricality, incorporation of digital modeling, and an experiential approach will be taken to understand how ancient visitors would have interacted

with the funerary monument, and what it can reveal about Eumachia's self-constructed identity. In this way, Eumachia's tomb can demonstrate much about not only the priestess herself, but attitudes toward death, monumental architecture, and elite female agency in the ancient Roman Empire.

Rediscovering the Tomb of Epaphroditus: New Data for the Topography of the Esquiline Hill

Francesca D'Andrea, Scuola Normale Superiore, Pisa

This paper provides new evidence to the existence and the appearance of the monumental tomb of Epaphroditus. He was a wealthy and powerful imperial freedman, possibly identifiable as Nero's entrusted man and secretary (Tac. Ann. 15.55; Suet. Ner. 49.3). My research aims to clarify the highly debated location of his properties, in order to improve our understanding of the ancient topography of the Esquiline Hill.

Archival research and a handmade drawing allowed me to clearly identify the location and the remains of a monumental tomb: a huge platform in concrete and, nearby, a large funerary inscription reused in late antiquity. The monument corresponds to a well-known first century funerary typology. Since the inscription fits the size of the concrete platform and the epigraphic text commemorates the imperial freedman Epaphroditus, I argue that the epitaph and the platform belong to Epaphroditus's great tomb.

Furthermore, the location of the funerary monument confirms the existence of this grave along the borders of the imperial freedman's gardens, the so-called Horti Epaphroditiani (Frontin., *Aq.* 68). By combining archival records with archaeological, epigraphic and literary sources, my research sheds new light on the relationship between tombs and private estates, and on the development of a suburban Roman landscape.

SESSION 4G
New Research on Etruscan Cities and Tombs

CHAIR: To be announced

Side B of the Aristonothos Vase: Etruscan Pirates and a Seventh-Century Naval Conflict

Amelia W. Eichengreen, University of Michigan

Owing to the disparity of archaeological material and a complete lack of historical texts, art historical comparanda must be used to understand the presence of warfare during the seventh-century in Etruria. The Aristonothos vase, a seventh-century Greek produced vase found in an Etruscan context depicting a naval battle, long has been the center of scholarly attention. These scholars have all interpreted that the vase depicts a Greek and Etruscan battle. I ask, does it make logical sense to have a vase produced by Greeks and intended for an Etruscan market that

represents the conflict between Greeks and Etruscans? The obvious answer to this question is no; it is highly unlikely that a Greek would have chosen to represent a conflict between his people and the people to whom he was selling the vase. Such a vase would not have been attractive to an Etruscan clientele. Additionally, de Grummond and Pieraccini's 2016 book, *Caere*, suggests amicable relationships between the Greeks and the Etruscans at Caere during the seventh-century, making this interpretation for the Aristonothos vase further unlikely.

If the vase cannot represent a Greek and Etruscan conflict, this begs the question what the vase represents. I ask, what peoples were involved in the conflict that is depicted and what can this representation tell of historical seventh-century battles and rivalries? Furthermore, what can be inferred from the Aristonothos vase about the naval technologies used by the Greeks and the Etruscans during the seventh-century? By using new comparanda, I argue that the vase depicts a battle between two Etruscan poleis, and that aristocratic pirates in Caere as early as 650 B.C.E. implemented the form of the Greek trireme into their navy. In contrast to the Greco-Etruscan conflict that previously has been posited, I suggest that connectivity between the Greeks led to the dissemination of naval technologies in seventh-century Etruria.

VULCI 3000 PROJECT—The 2017 Excavation Report
Maurizio Forte, Duke University

The Vulci project is focused on the study and interpretation of urban transformations in the transition between Etruscan and Roman cities, their public spaces, and specifically on the unique case study of Vulci (Viterbo, Italy). More specifically, the archaeological excavations, started in 2016, are focused on the investigation of the Western Roman forum. The impetus to focus the archaeological investigation in the Western Forum was based on the assumption that a centrally-regulated public space can explain sociopolitical features and identity of the Etruscan city-state and then of the Roman town. The characterization and organization of public monuments has religious implications and is associated with the symbols of power, specific material production, and specific use of construction materials.

The archaeological excavation was able to unearth a monumental building equipped with four niches for statues, and decorated with opus sectile, marble tiles imported from North Africa and Asia Minor. The monument is open to the Roman *decumanus* and connected with other complex buildings, still unexcavated. The architectural style and archaeological finds of decorations recall religious buildings dedicated to the emperor Augustus. This building overlays an Etruscan well-cistern, connected with a complex system of tunnels, very likely related to the water management system used in Pre-Roman and Roman times.

Metals, Production, and Social Differentiation at Poggio Civitate
Kate Kreindler, University of Illinois at Urbana-Champaign

In 2014 and 2015, excavators at Poggio Civitate uncovered the remains of a new monumental building. The building's dimensions are comparable in scale to the

three previously known buildings of the 7th century Orientalizing Complex: OC1 Residence, OC2 Workshop, and OC3 Tripartite. The building is fronted on its eastern end by a deep porch, while the rear half of the structure consists of a single room with cobbling, likely for a bench, running along the southern wall. The form is similar to Etruscan chamber tombs of the early 7th century and to contemporary domestic structures. Materials recovered from within this new building and from beneath its floor indicate that this structure dates to the first quarter of the 7th century and was a domestic space. For this reason, the building is called Early Phase Orientalizing Complex 4, or EPOC4. As the earliest of the monumental structures of Poggio Civitate, EPOC4 is assumed to be an elite domestic space, a forerunner to the slightly later OC1 Residence.

In 2016 and 2017, excavators sounded through the floor of EPOC4's front porch. These soundings revealed evidence of an earlier occupation in the area. Beneath EPOC4's floor, excavators found a charcoal-rich burnt deposit, exceptionally high quantities of ferric slag and crucible fragments, and possible traces of curvilinear architecture. Based on these excavations, I hypothesize that there may have been a wattle and daub hut in the location that became EPOC4's porch. Metallurgy was practiced here and continued in this same area when EPOC4 was constructed; excavators recovered high quantities of ferric slag and crucible fragments from the floor of EPOC4 as well.

Evidence for metalworking suggests that production initially occurred at Poggio Civitate in domestic spaces, even elite ones. This is in marked contrast to the slightly later structures of the Orientalizing Complex, in which production was removed from elite domestic spaces; in the Orientalizing Complex, production was moved to OC3 Workshop while OC1 Residence became an exclusively domestic space. However, based on excavations of non-elite 7th century houses, metallurgy continued to occur in non-elite homes. The separation of industrial and domestic spaces may be related to increasing fication. While non-elites continued to use their homes for production, elites ceased to engage in metallurgy directly and instead, commanded the resources, labor, and spaces necessary for production.

From Etruscan Urban Center to Medieval Fortified Village: San Giuliano Archaeological Research Project

Davide Zori, Baylor University, *Colleen Zori*, Baylor University, *Veronica-Gaia A. Ikeshoji-Orlati*, Vanderbilt University, *Lori Baker*, Baylor University, *Candace Livingston*, Anderson University, *Deirdre Fulton*, Baylor University, and *Dennis Wilken*, Kiel University

This presentation details results of the first two seasons of archaeological research (summer, 2016 and 2017) at San Giuliano, a multi-component site spanning the Iron Age through the Medieval period located in the Italian province of Lazio. Reconstruction of the long-term changes in human occupation is the primary goal of the San Giuliano Archaeological Research Project (SGARP), a collaborative initiative of Baylor University in cooperation with Italian partners from the Municipality of Barbarano Romano, Virgil Academy, the Province of Viterbo, and the Italian Soprintendenza Archeologia, Belle Arti e Paesaggio per l'Area Metropolitana di Roma, la Provincia di Viterbo e l'Etruria Meridionale; in conjunction with

specialists from Vanderbilt University, Kiel University, Oxford University, Anderson University, Memorial University, and UCLA. San Giuliano is famous for its many rock-cut Etruscan tombs (late 8th to 3rd centuries), but the associated urban settlement is as-yet undiscovered and the later Roman and medieval periods have not been the subject of sustained and systematic investigation. We have focused our attention on the Etruscan and medieval periods, which saw the most intensified use and fortification of the San Giuliano plateau. We seek to understand both the rise and fall of the Etruscan urban center and the medieval *incastellamento* (castle-building with relocation of populations to defensible hilltops) process that reshaped the Italian landscape in the 10th and 11th centuries. We present data from our on-going project's first two seasons, collected through mapping, surface survey, ground penetrating radar, and excavation of the habitation zone on the plateau and the surrounding Etruscan necropolis. We have documented over 500 previously unmapped tombs with a standardized system of GPS, photography, and registration forms. Salvage excavations of two looted tombs show significant promise for recovery of artifacts and human bone that will allow reconstruction of social and economic relationships maintained by the inhabitants of San Giuliano. Adjacent to standing medieval ruins atop the plateau, our excavations revealed a fortified zone comprising a small castle complex with a tower and low circuit walls. Through continued excavations in the castle we will test three explanatory models for the *incastellamento* process: 1) manifestations of state power (Byzantine, Lombard), 2) privatized feudal enterprises, and 3) communal village-based initiatives. We here present the framework of our new project and the preliminary results of the survey and salvage excavation of Etruscan rock-cut tombs and our mapping and excavations of the medieval component atop the San Giuliano plateau.

Dancing Death: A Neuroarchaeological and Performative Approach to the Etruscan Tomb Space

Jacqueline Ortoleva, University of Birmingham

Analyses of performative events illustrated on Etruscan tomb walls have often focused on social organization, presenting incarnations of performance, such as ritual, dancing and musical performance as symbolic of gender, status and the general identity of the deceased. Conversely, such scenes have been approached as symbolic of the Etruscan afterlife. Without textual sources elucidating each tomb's iconography, the underlying meaning of Etruscan tomb paintings may forever be lost to scholars. However, aspects of physical movement involving tomb paintings are accessible, but have received little scholarly attention. I argue that the tomb painting depictions of performative events served a more utilitarian role in the Etruscan tomb. Rather than merely symbolizing social status, or a specific setting, each scene, in conjunction with architectural components of the tomb, created a spatially charged and collaborative stage, reminiscent of a theatrical backdrop for the overall negotiation of the tomb space.

This paper focuses on the role that tomb paintings depicting performance may have assumed as part of funerary ritual. A selection of Classical tomb paintings from Tarquinia are utilized to illustrate two modes of performance that involve

coordinated and repetitive movement: ritual scenes and dance. Drawing on performance theory as well as neuroarchaeology, schemes for interaction with the tomb painting are highlighted in the movement through the tomb, and the production of the internment context. The analysis sheds light on the role that tomb paintings depicting performative events may have served in the tomb. Further, it re-contextualizes the bodily experience of funerary ritual as originally performed in the tomb space.

SESSION 4H
Recent Fieldwork on Crete

CHAIR: To be announced

Recent Excavations at Final Neolithic and Early Bronze Age Mesorachi, Crete

Melissa Eaby, INSTAP Study Center for East Crete, *Thomas Brogan*, INSTAP Study Center for East Crete, *Chryssa Sofianou*, Lasithi Ephoreia of the Greek Ministry of Culture, and *Yiannis Papadatos*, National and Kapodistrian University of Athens

This paper presents an overview of recent fieldwork by the Papadiokampos Project. Extensive survey in the area of the Sopata Plateau and Mesorachi Ridge (Siteia) in eastern Crete in 2012 revealed the presence of eight sites of Final Neolithic and Early Bronze Age date. At one of these sites (Mesorachi Site 7), an Early Minoan IB large oval building was excavated in 2013–2014 and has been previously presented. New excavations, conducted in 2014–2016 at Mesorachi Site 8 under the direction of Chryssa Sofianou of the Lasithi Ephoreia of the Greek Ministry of Culture, form the basis of this paper.

Three primary phases of ancient activity have been identified at Mesorachi Site 8. The earliest phase is represented by a series of "rock art," identified over an approximately 900 square meter area, which appears to date to the Final Neolithic period on the basis of parallels from the Cyclades (e.g., Andros, Herakleia, Naxos, Astypalaia). This decoration is comprised primarily of small (especially 2–3 cm in diameter), shallow, round cupules or "peckings" carved into the bedrock; these peckings commonly form geometric motifs, such as spirals, wavy lines, concentric semicircles, and ovals, though there are also possible examples of a boat, a ring idol, a foot, and a fish. An estimated 10,000 peckings have been observed thus far at the site. Although the meaning of this rock art is not yet known, it may have served a ritual (perhaps created in association with specific events) or other function, such as representing an astral or geographical map (with the motifs representing the sun, moon, stars, water, houses, islands, etc.).

Unlike the Final Neolithic period from which no clear architectural remains have been identified, there is extensive evidence for settlement at the site in the Early Minoan IA period. A rectangular building of 5–6 rooms constructed with large, semi-dressed stone stretchers on the exterior dates to this period and was in some cases built directly on top of the rock art. Site 8 appears to have been abandoned in the Early Minoan IB period and briefly reoccupied on a smaller scale in Early Minoan IIA, the date assigned to the ruins of a building with 4–5 rectangular

rooms. Mesorachi Site 8 provides significant new evidence for understanding the diachronic settlement history of the region, including the role of sites on the periphery and the nature of their connections to the Cyclades.

Continuing Excavation of the Minoan Ceremonial Complex at Sissi (Crete)

Ophélie Mouthuy, Université Catholique de Louvain, *Jan Driessen*, Université Catholique de Louvain, *Simon Jusseret*, University of Texas, Austin, *Maud Devolder*, Université Catholique de Louvain, *Sylviane Déderix*, Heidelberg University, *Théo Terrana*, Université Catholique de Louvain, *Thérèse Claeys*, Université Catholique de Louvain, and *Emilie S. Hayter*, University College London

Following its initial recognition in 2011, the excavation of the Minoan Ceremonial Center at Sissi (Kinotita Vrachasiou, Mirabello, Lassithi, Crete) continued for three campaigns, in 2015, 2016 and 2017. By the end of the 2017 campaign, most of the plastered Central Court and large parts of the east, north and west wings of the complex were uncovered but only the north boundary has been securely identified. While some parts of the east wing were reoccupied and remodeled during the Late Minoan III period, the rest of the complex seems largely to date to the Neopalatial period or 17th–16th B.C.E. (MM III–LM IA), although reusing earlier constructions, some of which are Prepalatial (25th century B.C.E.). The presence of Santorini ash in the abandonment levels suggests that the complex had a relatively short life span. The paper will discuss a series of particular architectural features that were found in the last three seasons including: a finely paved road or corridor which leads from the west straight into the court where it is flanked by a large platform and installation; a rectangular ashlar building and adjacent area which seems largely devoted to water collection; and certain other features in and around the central court which potentially suggest a ritual use. Incremental evidence has for a sequence of phases within the Neopalatial building complex will also be presented.

Neopalatial House A.2 and Minoan Aquaculture on Chryssi

Thomas Brogan, INSTAP Study Center for East Crete, *Vili Apostolakou*, Lassithi Ephoreia of the Greek Ministry of Culture, *Philip Betancourt*, Temple University, *Melissa Eaby*, INSTAP Study Center for East Crete, *K. Chalikias*, Arcadia University, *Katerina Mountaki*, Lassithi Ephoreia of the Greek Ministry of Culture, *Calla McNamee*, Wiener Laboratory of the ASCSA, *Demetra Mylona*, INSTAP Study Center for East Crete, and *Chryssa Sofianou*, Lassithi Ephoreia of the Greek Ministry of Culture

This paper reports on recent fieldwork on the island of Chryssi 15 km south of Ierapetra, Crete. Excavations by the Lassithi Ephoreia of the Greek Ministry of Culture between 2009 and 2017 have targeted a small Minoan fishing village and have uncovered parts of five dwellings so far. House B.1 at the northeastern limit of the settlement contained a unique workshop producing purple dye, which has been the subject of several earlier reports. More recent work has concentrated on a

much larger structure in the center of the settlement, House A.2. Preliminary study of the building identified three separate wings sharing party walls; however, only more detailed analysis of the architecture will allow us to determine whether the complex should be understood as a single unit or in fact two or three independent dwellings. To help answer this question, our paper examines the plans, small finds and environmental data to identify the function of individual spaces within the three wings.

We are particularly interested in learning what role A.2 played in the local and regional Neopalatial economy. Was it a house, a workshop, or both? Was it occupied year-round or seasonally? The rooms in A.2 contain significant evidence for fishing and two sets of paved platforms that appear to have had an industrial function. Our preliminary studies offer several suggestions for the use of this equipment, all of which appear to be connected with aquaculture, but surprisingly not the production of purple dye.

The pottery and small finds from the building (more than 250 vessels) shed new light on Neopalatial exchange patterns in southeast Crete. They also form the basis for a discussion of who (groups based in the Ierapetra region?) might have been interested in exploiting the island's valuable marine resources and position on coastal trade networks.

The House of the Frescoes at Knossos: Preliminary Results of the First Study Season on the Pottery

Emilia Oddo, Tulane University

The House of the Frescoes is a large Neopalatial (Late Bronze Age, ca. 1700–1500 B.C.E.) building located northwest of the famous Palace of Minos at Knossos (Crete), along the Royal Road. The excavation of the building took place during two separate seasons, in 1923 and 1926, under the direction of Duncan Mackenzie and Sir Arthur Evans, the excavator of the Palace itself. The finds from the House of the Frescoes include elaborate and colorful frescoes, which gave the name to the building and can be appreciated today in the permanent exhibit at the archaeological museum of Heraklion. Apart from the frescoes, however, the excavation yielded a rich material assemblage, including a Linear A inscribed libation table, some seals, and a large quantity of Neopalatial decorated pottery.

Evans published a preliminary account of the building in the Palace of Minos. Since then, the frescoes have drawn much attention, not only by Evans himself, but also later scholars. Yet, despite the wealth of material and its potential significance for the reconstruction of human activity at the outskirts of the Palace, the House of the Frescoes and the objects discovered within it have remained untouched for almost a century.

A new project, started in Summer 2017, aims to study and publish the House of the Frescoes and its finds. This paper presents the results of the first study season on the rich Neopalatial pottery assemblage.

Anavlochos, Crete: Preliminary Results of the 2017 excavations
Florence Gaignerot-Driessen, University of Heidelberg

After the completion of a 2-year (2015–2016) survey of the Anavlochos mountain range (Lasithi, Crete), the French School at Athens has started a 5-year program of excavations in the Summer of 2017. On the western part of the summit, two votive deposits were excavated. The first one yielded more than 550 fragments of Protogeometric to Classical figurines, figures, and plaques. The second one yielded a collection of Late Minoan IIIC-Geometric bovid figures. In the cemetery, located at the foot of the mountain range, large groups of graves were identified; while on the slope overlooking the cemetery, a bench building which contained votive material dating from Late Minoan IIIC to the Classical period was excavated.

Excavations at Azoria, East Crete, 2016–2017
Margaret S. Mook, Iowa State University, *Donald C. Haggis*, University of North Carolina at Chapel Hill, *C. Margaret Scarry*, University of North Carolina at Chapel Hill, *Rodney D. Fitzsimons*, Trent University, and *W. Flint Dibble*, American School of Classical Studies at Athens

We present a summary of the results of excavation at the site of Azoria in eastern Crete, conducted in 2016 and 2017 by the University of North Carolina at Chapel Hill, under the auspices of the American School of Classical Studies at Athens, and by permission of the Ephorate of Antiquities of Lasithi (Hellenic Ministry of Culture and Sports). The Azoria Project is the ongoing study of a protoarchaic (seventh-century) and archaic (ca. 600–480 B.C.E.) urban center, and the development of the settlement from Late Minoan IIIC (ca. 1200 B.C.E.) to late Archaic periods. Excavations in 2016–2017 have clarified our understanding of the civic buildings. The Communal Dining Building was composed of at least 26 contiguous rooms, organized in suites of storage, food-processing, and dining facilities. Stratigraphic soundings below archaic levels in the building produced evidence for a seventh-century pantry and hearth room with a votive deposit of bull figurines. Work on the lower west slope of the civic complex recovered the main access ramp, terrace, and western wall of the Monumental Civic Building (a banquet hall and adjoining hearth-shrine), and on the terrace immediately below, a freestanding architectural unit (West Building), some 36 meters long and seven meters wide, composed of nine interconnected rooms occupying over 250 m². The building's function is consistent with that of a storehouse, with an estimated minimum storage capacity of 31,000 liters, suggesting the administered organization of a range of foods (such as grain, pulses, olives, wine, figs, pomegranate, and almond) by the city or other supra-household authority. Preliminary analysis of the plant remains demonstrates the possibility of crop-specific storage practices in a variety of relief pithoi, amphorae, and other containers. Exploration of the southwest area of the South Acropolis revealed a complex of seven rooms, including a four-room protoarchaic building used for iron working; two dining halls of sixth century date; and adjoining storerooms with well-preserved late Archaic destruction deposits. Work at Azoria provides, for the first time in the Aegean, a detailed picture of the form and organization of an archaic urban center, whose political economy

was structured around systems of mobilization and centralization of agricultural produce, and subsequent redistribution for public consumption. Civic space was evidently dedicated to communal dining, on various scales and with potentially different configurations of participants, while associated food storage, processing, and preparation facilities provide evidence for processes of management and redistribution.

SESSION 4I
Domus and Palaces in Rome and Italy

CHAIR: *Rabun Taylor*, University of Texas at Austin

Subterranean Domus. Living Underground on the Capitoline Hill
Pier Luigi Tucci, Johns Hopkins University

My paper investigates for the first time an aristocratic domus located on the northern summit of the Capitoline Hill, well above the so-called Insula of Aracoeli. The remains of this domus, the only one recovered on the hill to date, were buried during the construction of the basilica of Santa Maria in Aracoeli in the late 13th century and remained sealed until the 1980s. As a result of my long-term survey, I can reconstruct the layout of the house relying on my plans and sections. The original building phase dates from the second century B.C.E., but substantial restoration works were made during the Flavian age (probably after the fire of 80 C.E.), and major remodeling was carried out during the Severan age, when the house lost its vestibulum-atrium-tablinum pattern and was expanded vertically by a deep cut into the tufa bank that created a partially underground level. The domus of the Aracoeli must have been a residence of exceptionally high status and, not by chance, by the early third century C.E. it was supplied by water reserved for imperial use. The evidence provided by stamped lead pipes along with literary sources have allowed me to identify the late first century C.E. owners of the house, before its incorporation into the imperial property. Because of its location and visibility, the domus of the Aracoeli was without doubt well known not only within its neighborhood—the Arx—but also in the city of Rome; its owners could see, and be seen from, every corner of the Campus Martius. In my article I examine and discuss the main architectural features of this house, such as its peristyle and underground spaces, as well as its sculptural and painted decoration in red and green linear style, which fills a gap in the history of Roman painting. I have not limited my research to the layout (at least three levels survive) and the chronological development of the domus; my aim has been to reconstruct the overall sociocultural context of this mini-villa, which attests for the transformation of a sector of the Capitoline Hill into an exclusive, residential neighborhood.

A Doctor in the House: The "Domus del Chirurgo" and Medicine in Imperial Rome
Sarah Yeomans, University of Southern California

In 1989, during construction work in a public square in the Italian resort town of Rimini (ancient Ariminum), workers noticed fresco fragments lodged in the roots of an unearthed tree. What began as an accidental discovery became an 18-year excavation project that revealed a veritable treasure trove of information about the practice of Roman medicine in the mid-third century C.E. Excavations of the "Domus del Chirurgo" (House of the Surgeon), as it has come to be called, yielded more than 150 medical instruments that were recovered from a two-room medical clinic (medica taberna), itself part of a large and refined Roman domus. The site was destroyed by a fire that was a result of a violent conflict with invading Germanic tribes sometime between the years 258 and 260; it lay undisturbed until its accidental discovery more than 1700 years later. The remarkable state of the domus' preservation, its meticulous excavation and the extraordinary objects identified within it—including a rather compelling graffito—has allowed for a greater understanding of not only Roman medical technology, but also of the spaces in which civilian healthcare took place, the social roles and identities of the medical practitioners themselves, and the relationship between civilian and military medicine during the Imperial period.

This presentation begins with a historical contextualization of the site and an examination of the material evidence recovered by archaeologists. It then situates the Rimini site in the broader context of Roman medical practices in the Imperial period by contrasting it with examples of known comparanda, such as Pompeii in Italy, Allianoi in Turkey, Marcianopolis in Bulgaria as well as various military hospitals (valetudinaria). The picture that then emerges not only provides us with a clearer understanding of Roman surgical technology, but also of a healthcare landscape—or "healthscape"—in the civilian sphere, which is perhaps more closely intertwined with medicine in military environments than material evidence had thus far been able to demonstrate. Illuminating in and of itself as a stand-alone site, the Domus del Chirurgo, when taken into consideration with previously known medical sites from the Imperial period, offers us an extraordinary opportunity to adjust the lens and bring into greater focus our understanding of Roman medical technologies, practices, and their practitioners during the Imperial era.

Daedala Tecta in Livia's Garden Room and _Georgics_ 4
Anne E. Haeckl, Kalamazoo College, and *Elizabeth A. Manwell*, Kalamazoo College

As a unique monument in the history of Roman painting, the Garden Room of Livia's Primaporta Villa has inspired continuous scholarship since its 1863 discovery, especially as an ideal Roman representation of nature consonant with Augustan ideology and poetry. It is therefore surprising that the identification of one compositionally significant motif in the paintings—the globular, yellowish brown border that separates the garden cycle on walls of the room from the stucco panels on its barrel-vaulted ceiling—remains controversial. While many scholars read this irregular framing device as the rocky opening of a cave (*spelunca*, *caverna*, *antrum*) from which viewers gaze out upon a paradisiacal landscape, others see

it as part of a man-made structure, a pergola or bower built of thatch or wicker. This paper argues that Vergil's cave-related terminology for beehives in *Georgics* 4 (*cavea*, *cavus*, *antrum*, etc.) offers a way to reconcile conflicting interpretations of the Garden Room's grotto-like border. In the Vergilian vocabulary of Roman beekeeping, the motif in question can be simultaneously defined as both a natural hollow and an artificial construction.

Although garden follies and beehives might initially appear to have little in common, Livia's painted paradise and Vergil's descriptions of apiaries both accentuate contrasts between controlled and wild natural forms. In the fresco's foreground, a carefully manicured ambulatio is demarcated from a background riot of unrestrained vegetation by a yellow crosshatched wicker fence and a white stone balustrade with honeycomb-patterned panels. Likewise, in *Georgics* 4, bees establish hives in natural openings in the ground (*sub terra*, 44; *pumicibus cavis*, 44; *caveis*, 50) and trees (*exesae arboris antro*, 44), but also inhabit man-made beehives (for example, *rimosa cubilia*, 45; *daedala tecta*, 187; *aulas and regna*, 202; *horrea,* 250) that were traditionally constructed of a variety of materials, including interlaced strips of bark and wickerwork woven from pliant twigs in a manner akin to the fresco's yellow fence. The *operosa antra* or man-made cavities evoked by the craggy upper edging of Livia's Garden Room and the artificial apiaries of *Georgics* 4 thematically unify two great works of Augustan art and literature. Artfully ensconced within their respective *daedala tecta*, Livia's guests and Vergil's *Quirites*/bees shared virtually identical vistas of flourishing flora and fauna, spread out for elite aesthetic appreciation and productive plebeian exploitation by Roman industriousness, ingenuity and skill.

The Marble Wall Decoration of the Palatine Palace: 18th Century Discoveries Rediscovered
Dirk Booms, Independent Scholar

Between 1774 and 1777, the so-called Domus Augustana, the private section of the Roman imperial palace on the Palatine Hill in Rome, built by the emperor Domitian, was excavated by the French abbot Rancoureil, with the sole aim of discovering sculpture for financial gain. Since Rancoureil kept the excavations secret and would not allow visitors (famously forcing Piranesi to sneak in at night), barely anything is known, except through a few notes published by G.A. Guattani ten years later (*Monumenti Antichi Inediti ovvero Notizie sulle Antichità e Belle Arti di Roma per l'anno 1785*, Rome 1785). However, several marble wall decoration fragments in the storerooms of the British Museum, including pilaster capitals and cornices, long thought to be without provenance, can now be proven to have come from these excavations. Through a combination of information from Grand Tourist and collector Charles Townley's personal notes, the archaeological remains in situ, as well as an unpublished 18th-century drawing, it is possible to locate the exact room that the fragments come from, allowing for a complete reconstruction of its wall-decoration scheme, not just in general terms, but in remarkable detail, including the actual types of marble used for each element. Given that the same scheme appears throughout various parts of the Palatine palace, this comprehensive reconstruction brings us one step closer to a full understanding of the architectural and decorative properties of the Emperor's personal space.

Archaeological Investigation at the "Villa of the Antonines" at Ancient Lanuvium: The 2017 Season

Deborah Chatr Aryamontri, Montclair State University, *Timothy Renner*, Montclair State University, *Carlo Albo*, Independent Scholar, *Alessandro Blanco*, Independent Scholar, and *Carla Mattei*, Independent Scholar

The 2017 field season at the "Villa of the Antonines" continued to expand our understanding of this poorly known site, identified as the probable residence at Lanuvium of the second century C.E. imperial dynasty of the Antonines referred to by the Historia Augusta, and from which a well-known group of Antonine family marble portraits discovered in 1701 seems to derive. The site, just south of the Via Appia within modern Genzano di Roma and some 1.5 km north of the urban center of ancient Lanuvium, has suffered considerable damage but must have been one of the major elite residences in the Alban Hills.

Excavations, ongoing since 2010, continued in 2017 in the two principal sectors currently under study: the Thermae/Amphitheater sector (Area 1) and a sector higher uphill, possibly the residential quarters of the villa (Area 2). In Area 1 the small amphitheater (only 52 m in length) has continued to surprise excavators with a growing array of new underground walls pertaining to a distinctive series of galleries and rooms beneath the arena that fit Commodus's reported interests in arena sports, including performance at Lanuvium.

Further exploration in the "residential sector" circa 200 m uphill brought new and exciting discoveries. Previous seasons had suggested the existence, alongside rectangular rooms paved with geometric black-and-white mosaics, of a very large circular room (diameter ca. 22 m), inscribed in a square and surrounded by niches, likewise apparently once decorated too with black-and-white mosaics, including the head of a Medusa. The finding of a fourth niche has now confirmed the existence of this room. Moreover, additional structures have come to light: a new wall in connection with small pilasters (a possible small porch?), a paving preparation for marble slab flooring, and two new rooms decorated with black-and-white mosaics. It has not yet been possible to uncover more than a small corner of one, but the black-and-white mosaic of the other, at the corner of its room, has been partially excavated, revealing a beautifully executed kantharos, flanked by two birds, from which spirals of vegetal decoration emerge. In this same area researchers found a large number of white and simply red lined frescoes, adding to our (albeit fragmentary) knowledge of the varied wall decoration of the complex. These new discoveries open a new exciting chapter in the investigation of this villa complex that is finally starting to reveal its secrets.

SESSION 4J
Preventing Cultural Loss

CHAIR: To be announced

Alexander the Great, the Burning of Persepolis, and the Destruction of Cultural Heritage
Rachel Kousser, City University of New York

Alexander the Great's burning of Persepolis in 330 B.C.E. is among the most famous ancient examples of the destruction of cultural heritage. It has been analyzed primarily on the basis of literary texts that describe it as a calculated political act, meant to avenge the Persian invasion of Greece, or as the spontaneous result of a particularly violent drinking party. This paper instead examines the destruction of Persepolis from an archaeological perspective, drawing on the hitherto neglected, yet well-preserved and well-documented, evidence of the site itself. It also considers Alexander's action within a broader context, that of exemplary violence toward monuments in the ancient world.

To judge from the preserved archaeological evidence, Alexander's burning of Persepolis was meticulously planned and carefully executed. He had the palaces looted first, so thoroughly that only scant traces are left of the Persian kings' once-enormous treasury. Alexander then had the remains torched, carefully and selectively. His focus was on areas that would burn easily due to their flammable contents—for instance, wooden furniture and tapestries—though he perhaps singled out some sites of symbolic value also, such as the palaces of Darius and Xerxes. The archaeological evidence thus suggests that Alexander's burning of Persepolis was intentional, not spontaneous. This analysis has important implications for our understanding of the Macedonian king at a critical turning point in his career. It also draws attention to Alexander's place within the larger history of the destruction of cultural heritage monuments in Greece and the Ancient Near East.

Approaches for Protecting Cultural Heritage Sites: Mallawi Museum Case Study
Heba Abdelsalam, Middle Tennessee State University

In the Middle East, efforts to preserve cultural heritage have focused primarily on conversation and restoration. While these were valuable projects, the importance of involving stakeholders in preserving their heritage was not recognized. Lately many Middle Eastern heritage sites have experienced looting and destruction. Therefore, it is important to understand the reasons for both antagonistic and apathetic attitudes toward heritage sites in order to begin to address the issue of protecting them for future generations. In 2013, the world witnessed destruction in the Mallawi Museum in Minya, Egypt. Around 1,059 objects were looted or destroyed. When the museum reopened in 2016, it was important to develop a community engagement project to connect stakeholders in Mallawi with their museum. This paper investigates the methods that were effective for emphasizing

the value of cultural heritage in the Mallawi area. The project included developing workshops that used storytelling and living history to enhance local awareness about heritage sites. Surveys distributed to adult participants indicate that these approaches were effective in linking the community with its heritage, paving the way for better protection of cultural heritage in the future.

The Race to Save Greenland's Archaeological Heritage from a Shifting Climate: Field Report from the REMAINS of Greenland Project

Hans Husayn Harmsen, Greenland National Museum and Archives, *Jørgen Hollesen*, National Museum of Denmark, *Henning Matthiesen*, National Museum of Denmark, *Bo Elberling*, CENPERM, University of Copenhagen, *Christian Madsen*, Greenland National Museum and Archives, *Aart Kroon*, CENPERM, University of Copenhagen, *Nanna Bjerregaard Pedersen*, National Museum of Denmark, *Andreas Westergaard-Nielsen*, CENPERM, University of Copenhagen, *Mikkel Myrup*, Greenland National Museum and Archives, *Anne Marie Eriksen*, National Museum of Denmark, *Rasmus Fenger-Nielsen*, CENPERM, University of Copenhagen, *Emil Alexander Sherman Andersen*, CENPERM, University of Copenhagen, and *Roberto Fortuna*, National Museum of Denmark

Quantifying the rate of organic deterioration taking place at archaeological sites in the Arctic presents a number of fundamental challenges. To address some of these issues, the REMAINS (REsearch and Management of Archaeological sites IN a changing environment and Society) of Greenland project has documented the complex and shifting spectrum of atmospheric, climatic, and subsurface phenomena that currently threaten Greenland's heritage landscape in the 21st century. This paper reviews the interdisciplinary work of the team during the 2016–2017 field seasons and discusses some of the most immediate threats derived from climate change that include—but are not limited to—increasing soil temperatures, permanent loss of permafrost, early perennial thaws, coastal erosion, storm surges and bioturbation from pioneer plant species such as Gray Willow (*Salix glauca*). Information gathered by the REMAINS team provides some of the first steps toward creating a baseline for observed and historical changes taking place in West Greenland over the last century, as well as "ground-truthing" hypotheses about the current speed and frequency of deterioration of organic remains occurring below the surface. At the same time, this data collection is supplemented by a new standardized protocol for determining a site's value, a tool intended for heritage managers and archaeologists in Greenland. When implemented it will provide considerable insight into managing and mitigating the loss of high-risk archaeological sites and features in the years to come.

Parsing the Efficacy of Fifty-Plus Years of On-Site Metals Conservation at Sardis

Brian Castriota, University of Glasgow, and *Emily Frank*, Conservation Center, Institute of Fine Arts, New York University

The annual Harvard-Cornell-led excavations carried out at Sardis, Turkey, over the last fifty-eight years have produced a collection of over five-thousand copper

alloy and iron finds, which have been stored on site since their excavation. The many conservation log books dating back to the 1960s document a unique history of stabilization treatments at Sardis, methods that evolved over the years as new conservation research was put into practice.

Although the construction of a new storage depot at Sardis was completed in 2006, environmental monitoring data indicates that the relative humidity (RH) is often well above 50% in the spring and fall, and reaches up to between 80% and 100% RH for weeks on end in the damp, winter months. The soil at Sardis is not excessively salty, however a significant percentage of both copper alloy and iron finds exhibit signs of chloride-related deterioration, exacerbated by these high-RH storage conditions. To date, these finds have never been systematically condition-checked or stabilized en masse due to the sheer quantity of material and limited staffing. In an effort to tackle this problem, the conservation team at Sardis carried out a condition survey of the 5,609 copper alloy and iron objects in storage on site over the course of the 2016 season. The survey found that roughly 40% of the metal objects exhibit signs of deterioration.

This paper summarizes the history of metals stabilization treatment at Sardis with the aim of parsing the efficacy of historic treatments implemented from 1958 onward. Focus is placed on data from the last fifteen years of treatment, since the introduction of the FileMaker database, because more detailed records exist from this point forward. The rationale behind our newly implemented protocol for rehousing unstable metals in desiccated and/or anoxic enclosures (using Escal barrier film, silica gel and/or oxygen scavengers in an effort to slow down the deterioration of the metal finds in storage) is also explained. The authors will discuss the practical dimensions of what such a rehousing initiative entails on site, as well as the justifications for maintaining or abandoning traditional treatment protocols in light of these changes.

Restoring the Capitoline Museum's Red Faun

Elizabeth Bartman, AIA New York Society

Like many famous works from antiquity, the Capitoline Museum's Red Faun suffers from over-exposure: its very familiarity breeds contempt as scholars assume that everything that can be known, already is. In addition, its many obvious modern restorations have deterred scholarly engagement, at least from experts in ancient art. This paper exploits that alleged fault by mining the extensive archival and physical evidence of the statue's early modern restoration in order to improve our understanding of the ancient image and its context.

Contemporary records from 18th century Rome record both the discovery of the Faun at Hadrian's Villa in Tivoli in 1736 and its subsequent restoration by Clemente Bianchi and Bartolomeo Cavaceppi in 1744. The bill for its restoration, undertaken after consultations with leading artists, sheds light on what was a complex and difficult process. Paradoxically, the detailed reckoning—listing more than 60 steps in the process—gives evidence for the restorers' decision to incorporate all extant fragments of the statue as well as to leave certain ancient parts untouched. An unpublished conservation report from 1999 confirms the bill's details and provides further insights into how the statue was restored. The picture that emerges is

considerably more nuanced than a typical catalogue description such as "restored extensively in the 18th century."

By examining the bill in relation to what is visible on the statue today, we gain a new perspective into restoration practices in the heyday of the 18th century. In its use of archival sources, this paper points the way towards developing a new paradigm for studying and interpreting restored ancient statues in old European collections, arguably some of the most celebrated works of art from antiquity.

Enigmatic Beauty: The Problem of Provenanced, but Unprovenienced Artworks in Museums
Chelsea Dacus, Rice University

A handsome early Archaic Greek female statue in the Museum of Fine Arts, Houston (MFAH) illustrates the ways that artworks without archaeological context, even those with long collection histories, provide a fragile base on which to construct knowledge. Although the collection history of this sculpture reaches back to at least 1960, including publication and display along the way, its ancient origin has presented a conundrum. One scholar ascribed it to Laconia, while another called it a forgery. A nearly identical but considerably smaller object in the Louvre, on the other hand, has been called Boeotian in style and is said to be from Chalcis. Elizabeth Marlowe calls such objects without documented archaeological excavation "ungrounded," and argues for emphasizing grounded over ungrounded artworks in academia and in museums. The variety of attributions for the two visually allied works at the MFAH and Louvre demonstrates just how shaky the understanding of art and history presented by museums can be.

This study examines the possible connections of the MFAH piece to various locales through consideration of the MFAH's provenance records and also iconographic comparison with other ungrounded and grounded artworks. By looking at this example, this paper illuminates the difficulty and tenuousness of information presented by leading institutions, even those as venerable as the Louvre. The objects at the Louvre and MFAH show that ungrounded objects provide almost no reliable information by themselves, and can only supply limited knowledge even when they can be connected with grounded artworks. This problem is compounded when considering that many institutions have very few, or sometimes no grounded artworks to display, making it difficult for museums to compensate for the imbalance, and negating the relevancy of a museum's collections to scholarship. This paper argues that museums can and must do more than present ungrounded objects in the conventional manner of trying to fit them neatly into the art historical record. It concludes by suggesting ways in which museums might make ungrounded objects more than just pretty things to observe.

SESSION 4K: Workshop
Funding Sources and Grant Writing

MODERATORS: *Simeon D. Ehrlich*, Stanford University, and *Paula Gheorghiade*, University of Toronto

Workshop Overview Statement

All academics—undergraduates, graduates, postdoctoral scholars, and faculty—need funding, whether for tuition and living expenses, research travel, or to prepare publications. Paradoxically, instead of researching, we spend much of our time applying for funding to conduct that research. But who offers it and how does one go about getting it? How can we ensure that time spent applying for funding is used effectively? Universities, libraries, professional organizations, foreign archaeological institutes, governments, and private funds in the US and abroad offer funding for a wide range of circumstances—yet each expects something different from the applicant. Potential applicants stand to benefit from a more thorough understanding of the different types of awards available and the requirements and expectations for each category, as presented by those who have administered funds and reviewed applications.

The workshop will cover both major and minor sources of funding: graduate fellowships, dissertation completion fellowships, travel bursaries for research, excavation, or conference presentations, publications subvention grants, fellowships for individual or collaborative research projects, conference organization grants, and more. Panelists will offer advice from the perspective of those reviewing the applications in the hopes of shedding light on what can often be an opaque process for those applying. Speakers will offer advice on topics such as: where to look for funding, the types of grants available, how to pitch complex, technical research to non-specialists, how to draft a budget, and what to say and what not to say in an application.

Our panelists—professors, university administrators, and representatives from funding agencies—will draw on their manifold experiences finding and applying for funding, serving as referees, adjudicating applications, and administering funds to advise on best practices in sourcing and securing funding. Students at institutions large and small stand to benefit from the insights into sources and types of funding available to them and best practices in drafting their applications. Faculty, too, stand to benefit from the perspectives of their colleagues and from the introduction to new opportunities. By crafting more effective funding applications, all will be able to further their research.

PANELISTS: *Elaine Gazda*, University of Michigan, Ann Arbor, *Carl Knappett*, University of Toronto, *Dimitri Nakassis*, University of Colorado, Boulder, *Laurel Sparks*, AIA, and *Ben Thomas*, AIA

SESSION 5A
Undergraduate Paper Session

CHAIR: *BonnaWescoat*, Emory University

The Tarsus Connection: Striking Coins, Striking Lives
Nina Angileri, Bryn Mawr College

The Ella Riegel Study Collection of Bryn Mawr College houses a group of 88 coins donated by Hetty Goldman (B.A., 1903), who excavated Gözlü Kule, Tarsus, from 1935 to 1939 and 1946 to 1948. TriArte, the online database for the collection, alleges that these coins were excavated at the site, with 37 vaguely titled as "Coin of Tarsus (?)." The diversity of mints and time periods represented in the group, however, belies such a straightforward answer.

Therefore, I undertook a research project with the following two goals: to clarify the provenance of the coins and to catalogue the coins possibly minted in Tarsus. My careful comparison of the Goldman coins to the text descriptions and plates found in the Tarsus excavation publications reveals that none of the coins could have been excavated at the site. My comprehensive study of the Tarsus publications, coin catalogues from museums and private collections, and visual comparanda from academic online databases shows that only seven of the Goldman coins were minted in Tarsus. Although no documents explicitly concerning the collecting history or the acquisition by the college are extant, I conducted an exhaustive search of the Ella Riegel Study Collection files, the Archaeology Department archives, and the Bryn Mawr College archives. I discovered information that enriched the limited provenance records of the Goldman coins, allowing me to reconstruct a plausible collecting history and acquisition.

Unexpectedly, the search alerted me to the presence of 20 other coins minted in Tarsus, which came from four other donors. Astoundingly, three of these donors are linked through their connections to Hetty Goldman, the site of Tarsus, and Bryn Mawr College. Combining the seven Goldman coins with the additional 20 creates a single catalogue that brings awareness to these understudied coins and highlights the depth of interpersonal connections between the women who donated them.

Even with archaeological context, coins can easily be overlooked as information sources, and the Goldman coins have been no exception. The educational value of artifacts, however, is not necessarily limited to their physical condition. Taking artifact histories into account, my Tarsus coin collection demonstrates that seemingly insignificant artifacts can act as powerful vehicles of meaning, with the potential to illuminate deeper layers of meaning in other artifacts. The collection offers not only a valuable historical slice of Tarsian coinage but also a unique glimpse into the lives of women who studied, worked, and socialized together.

A New Interpretation of the Chigi Vase and Macmillan Aryballos from the Perspective of the Phoenician Metal Bowl Tradition

Joseph Brennan, Baylor University

I present an analysis of the Chigi vase and Macmillan aryballos from the perspective of the Phoenician repoussé metal bowl tradition. An understanding of the iconography, themes, and composition of Phoenician metal bowls shows that the Phoenician artistic tradition had a profound impact on the imagery and themes that the Macmillan Painter incorporated into the Chigi vase and Macmillan aryballos. As a result of the shared iconography between Phoenician metal bowls and the Chigi vase/Macmillan aryballos, one can read the imagery depicted on the Chigi vase and Macmillan aryballos in an entirely new light. In this reading, the overarching themes of royalty and royal pursuits connect the images seen on the Chigi vase and Macmillan aryballos.

Specifically, the imagery shows the most common events in the life of a Near Eastern king or aristocrat, such as hunting, war, giftbearing/tribute, and military processions. The Judgment of Paris scene also fits into this Phoenician interpretation, since Paris is a west Asian prince, and Near Eastern princes often feature on Phoenician metal bowls in gift-bearing and tribute scenes, just as Paris is depicted in a gift-bearing scene. Even the hoplite battle scenes find prototypes in the battles, sieges, and military processions that accompany Phoenician bowls from Etruscan and Cypriote provenance.

The lion head that crowns the top of the Macmillan aryballos also derives its meaning from the Near Eastern artistic context as the symbolic vanquisher of the enemy. By placing the head of a roaring lion above the battle scene, the Macmillan Painter conveys the idea that the victorious hoplite army below is vanquishing its enemy with the ferocity of lions vanquishing their enemies. Thus, with an understanding of the Phoenician metal bowl tradition, one derives the real meaning of the imagery seen on both the Chigi vase and the Macmillan aryballos. The Macmillan Painter's pictorial representation of the lifestyle and pursuits of Near Eastern aristocrats, princes, and kings would have been easily grasped by the Etruscans and Thebans and would have conveyed exotic activities that these western aristocrats, some princes in their own right, might have wished to engage in themselves.

Dogs of War: Images of the Soldier's Canine Companion on Athenian Vases

William Pedrick, University of Virginia

This paper argues both that dogs physically went to war and that their images were used symbolically in military contexts in Athens in the sixth and fifth centuries B.C. The presence of dogs is well attested in male ritual activities such as the hunt and the symposion, but in addition some scholars have noted that several ancient literary sources mention the presence of dogs in Greek warfare. Homer mentions the dog's presence on campaigns while Herodotus, Aeneas Tacticus, Polyaenus, and Aelian cite the dog's active participation in Greek fighting. In these accounts, dogs were used to track enemy movements, patrol cities, and combat enemy soldiers. Building on this earlier work, this paper demonstrates how the iconography of the military dog from Athenian vases of the sixth and fifth centuries B.C. contributes to our understanding of dogs' role in war.

The image of a dog on the shield of a warrior is portrayed on a number of vases. The overwhelming majority of these shield devices contains the image of the poised hound, which is also commonly found in vase scenes showing the aristocratic hunt. This motif can be interpreted as evidence for the use of the dog by Athenian warriors as a symbol of intimidation. However, the shield device can also be interpreted as evidence for the physical use of dogs on campaign. The latter interpretation is supported by a different set of vase scenes that depict the soldier and dog departing from, or returning to, the oikos together. In these scenes, the dog and warrior(s) are either spatially or thematically separated from the other members of the household who bid them farewell or welcome them home. The grouping of dog and warrior suggests that the dog physically accompanied the Athenian hoplite through his defining transition from the oikos to the military context. The combination of this iconography with literary evidence from later periods suggests that dogs may have been strategically used in Athenian warfare in the sixth and fifth centuries B.C., or at least attended warriors on campaign. Their presence in the military context—both symbolic and physical—thus has important implications for the broader study of the role of the dog in the masculine Athenian realm.

Brauron: Beyond Bears
Claire W. Seidler, New York University

Artemis is noted for playing midwife to her mother and assisting her in a successful transition from a *nymphe* (bride) to a *gyne* (woman/wife/mother). At the sanctuary of Artemis at Brauron, girls of affluent families were sent to learn what it meant to transition from a bride to a mother and pray that they make this transition successfully. The girls "play the bear" in the Arkteia ritual to practice their impending transition and hopefully make it an easier one. At Brauron, Artemis stands in her role as *Kourotrophos*, a guide preparing adolescent girls so they might have an easier and successful transformation to motherhood. Textual evidence from the Classical period gives us an initial insight into Artemis' relationship with maidens and her role as a "Far Shooter." Ceramic evidence and a reading of the open spaces at Brauron deepen our understanding of the ritual practice there. If we consider the recently documented evidence by Liza Cleland of inscriptions that describe clothing dedicated at the site alongside the theories of Sourvinou-Inwood and Hamilton we can achieve a deeper understanding of the meaning of one integral part of the ritual. When we look at this evidence together we can see, as Joan Connelly and Claude Calame suggest, that Brauron was a site of education; more specifically a school that prepared young girls to be not only wives and mothers, but ideal ones.

The Use of a Hallucinogenic Substance at the Sites of Eleusis, Delphi, and the Acherousian Nekromanteion
Claire S. Nelson, Coe College

This paper hypothesizes that the Greek ritual sites of Eleusis, Delphi, and the Acherousian Nekromanteion all used the same hallucinogenic substance, *Claviceps*

paspali, or ergot of barley, to assist ritual participants in their experiences of communion. All three of the sites' rituals revolve around the main task of facilitating a communion between man and the otherworldly. The research presented here pulls together evidence for the use of this hallucinogen at all three sites. Although not all evidence is conclusive, it is still persuasive. The purpose of this research is to open the subject to discussion with the most solid foundation possible.

This paper is divided into six sections. The first section explains the importance of the hallucinogen and its host plant, common barley grain, in the cultural and historical context of Greece. This section sets up an equivalent substance to help provide a more familiar example for the purposes of later comparative analysis and examination and provides a detailed list of the effects of *Claviceps paspali*, and its equivalent, on the human experience. The next three sections focus on the individual sites; locations, inner workings, myths, gods, participants, and participant experiences. The fifth section explains why the experiences described in the evidence presented by the prior three sections can be accounted for only if we posit a hallucinogenic compound, specifically *Claviceps paspali*, as the cause of the states achieved by the ritual participants. This section uses comparative analysis to explain the effects of *Claviceps paspali* and how these effects can be identified in ritual accounts. The last section provides the concluding statements of this research and further questions for future research.

In the concluding statement, this paper takes the stance that the hallucinogen *Claviceps paspali* is the cause of ritual participants' experiences of communion with the otherworldly at the three sites of Eleusis, Delphi, and the Acherousian Nekromanteion. Lastly, the concluding statements also present a series of questions that strive to advance the scope of the topic of hallucinogens in these Greek rituals and in others.

Ambitious Antinous: More Than Hadrian's Lover Boy
Danielle Gin, Kalamazoo College

Scholarship on the mysterious death of Antinous, Hadrian's beloved companion, tends to deemphasize the fact that it occurred at a critical juncture as he was outgrowing the normative age for an *eromenos*. This paper argues that a fragmented poem by the Alexandrian poet Pancrates contains previously unrecognized hints about Hadrian's plans for Antinous. Pancrates is thought to have traveled with the imperial party during Hadrian's tour of Egypt in 130 C.E., months before Antinous' death. The surviving section of his poem mythologizes a lion hunt by Hadrian and Antinous in Egypt's Western Desert, which the poet may have witnessed himself. Pancrates portrays Antinous not as a lover but as a trusted companion engaging in a royal pursuit that carries intercultural associations with Egyptian, Macedonian, and Roman right to rule.

In particular, the Egyptian context of Pancrates' epic lion hunt resonates with the Sphinx Stele, erected by Pharaoh Tuthmosis IV (ca. 1397–1387 B.C.E.), indicating that Hadrian may have been grooming Antinous for an imperial office in Egypt. The stele claims that Tuthmosis, as a young man like Antinous, who was not directly in line for power, fell asleep under the Sphinx while hunting lions in the Western Desert, where Hadrian and Antinous conducted their lion hunt.

The Sphinx promised Tuthmosis IV in a dream that he would become pharaoh if he cleared the sand covering the monument. Tuthmosis did so and duly rose to power. Pancrates' poem undoubtedly brought this episode during a pharaonic lion hunt to the minds of his ancient audience, connecting Antinous' participation in an imperial lion hunt with the right to rule.

Pancrates' poem also evokes other cultural associations between lion hunts and the right to power. Alexander the Great set the precedent that lion hunts proved the strength of Macedonian kings. Furthermore, the Alexander Sarcophagus in Istanbul depicts Alexander hunting lions, potentially with his bosom companion, Hephaestion. This is similar to how Antinous is often identified on the Hadrianic roundel showing a lion hunt on the Arch of Constantine. Pancrates' lion hunt connects Antinous to pharaohs, Macedonian kings, and Roman emperors. His involvement in it provides a new sociopolitical context for his relationship with Hadrian at the liminal stage just prior to his death and supports the idea that Hadrian considered him fit to take an office in Egypt as his time as the emperor's lover drew to a close.

SESSION 5B: Workshop
Philanthropy and Funding . . . In Today's World

MODERATORS: *Melissa G. Morison*, Grand Valley State University, and *Dawn Smith-Popielski*, AIA Member at Large

Workshop Overview Statement

How will I fund my project? How can I help my students and department colleagues find the resources they need to achieve their goals? As government funding opportunities contract, answers to these critical questions will increasingly rely on fruitful partnerships with corporate foundations, philanthropic organizations, and private donors.

Focusing specifically on the perspectives of donors and development professionals, the panelists in this session will discuss the rapidly changing landscape of philanthropic support for archaeology. The panelists themselves embody a wide range of expertise and experience in both private and corporate philanthropy and in archaeology itself.

Among other topics, the session offers an opportunity to learn how organizations and individuals select the projects they support, with particular attention to issues of mission and impact; how to respond effectively to new developments in corporate giving structures; how to articulate a vision for research and advance donor commitment; how to cultivate relationships with potential donors (e.g., department alumni) and work proactively with institutional development officers; and how to build an effective fundraising culture within your department or project.

While the session is structured around panel presentations, audience members are encouraged to engage actively in discussion, and significant time is allotted for this purpose. Through a combination of reflection and dialogue, we hope that participants will take away a new set of ideas and tools that will facilitate project

planning and implementation. Whether you are planning a research project, seeking support for department initiatives, or just want a fresh look at fundraising, this session is for you.

PANELISTS: *Peter Gould*, University of Pennsylvania Museum of Anthropology and Archaeology, *Dominic Popielski*, AIA Member at Large, *Joanne Berdebes*, American School of Classical Studies at Athens, *Dawn Smith-Popielski*, AIA Member at Large, and *George Orfanakos*, American School of Classical Studies at Athens

SESSION 5C
Managing Water in the Roman Empire

CHAIR: *Brenda Longfellow*, University of Iowa

Stabian Baths in Pompeii: New Research and Perspectives
Monika Truemper, Freie Universität Berlin

This paper presents the results of recent research in the Stabian Baths in Pompeii that has significant impact for assessing the development of both the city and ancient bathing culture. In his influential monograph on the Stabian Baths from 1979, Hans Eschebach proposed a suggestive model of urban and cultural development, based on an analysis of the walls and 36 sondages. In the sixth century B.C.E., the terrain of the baths would have been crossed by the fortification wall with gate and ditch of the archaic city. In the fifth century B.C.E., a Greek palaestra with a separate bathing complex would have been built and gradually developed in five phases into the sophisticated Roman thermal complex that was buried by Vesuvius in 79 C.E. Eschebach, however, did not comprehensively document his sondages and did not publish any stratified finds. While his developmental model was repeatedly criticized, systematic reassessment has been initiated only in 2015, within the frame of an interdisciplinary project that examines the development of bathing culture in Pompeii.

In three campaigns (2015–2017) focused on the Stabian Baths, the chronology of the standing remains was critically reexamined, and trenches were excavated in five areas that were crucial for Eschebach's reconstruction. Mostly, Eschebach's old trenches were reexcavated to fully document them and then enlarged to get undisturbed stratigraphies. Summarizing the major results of the fieldwork, it is first shown that there is no evidence of any fortification or any other clearly identifiable archaic feature anywhere on the terrain of the baths. The irregular street plan of Pompeii's "Altstadt" notwithstanding, this Altstadt was never surrounded by a wall in the area of the baths. Second, it is demonstrated that there is no evidence of a palaestra and bathing facilities of the fifth to third century B.C.E. Instead, the entire lot was leveled with a thick layer of earth mortar in the late second century B.C.E. for construction of a house in the southwest corner and the baths, designed largely with their currently visible extension and layout. The baths were, from the beginning, provided with separate sections for women and men, each with

a suite of three rooms (apodyterium-tepidarium-caldarium) and with innovative technology (concrete vaults, hypocaust system). In sum, the Stabian Baths can no longer serve to demonstrate the transition between Greek and Roman baths, and the history of ancient bathing culture must be rewritten.

Aquatecture: Assessing the Aqueduct Builder's Art in Light of a Newly Discovered Source of the Aqua Traiana

Rabun Taylor, University of Texas at Austin, *Edward O'Neill*, University of Leicester, *Michael O'Neill*, Independent Scholar, and *Giovanni Isidori*, Independent Scholar

This paper has two objectives: to report on significant new finds in the Aqua Traiana source project, and to offer a comparative assessment of the architectural styles and processes manifest in the construction of the aqueduct's known parts. In 2017, we focused on the region of Vicarello on the north shore of Lake Bracciano. The remains of an ancient thermal bathing complex and an adjoining monumental nymphaeum of the Domitianic period have received recent scholarly attention; however, the hydraulic system serving the complex, which may have developed into a significant feeder branch of the Aqua Traiana, is unknown. A large cistern of Roman imperial date just above the baths is occasionally noted in the literature, but its place in the hydraulic landscape remains mysterious. Evidently it replaced a smaller, ruined basin adjacent to it, but no traces of conduits to either of them have been found, though a well-preserved water bridge crossing a nearby stream provides an important point of reference. Before 2017, no cold-water supply system to any of the described hydraulic features had been identified. However, our investigations uphill in 2017 revealed an elaborate underground arcaded gallery of Roman construction girdling the base of a heavily fissured rock face. Its volume of water output is significant even now, and its offtake conduit crosses the bridge but now bypasses the cistern, nymphaeum, and baths, heading directly for the main supply line of the modern Acqua Paola. At the source, down one side of a 40 m barrel-vaulted gallery runs an arcade of 13 arches; this structure serves simultaneously as a buttress against the friable rock face and the capture point for several outlets of water gushing from the rock. Along a smaller supplemental channel, five grottos have been cut out of the rock. Four of these still have live sources emptying into a feeder channel lined with Roman brick and *opus signinum*. One outstanding architectural anomaly in this sector is cane-bedded centering, which left a corrugated impression on the soffits of arches and vaults. Equally interesting are the architectural strategies employed to establish an unusual symbiosis between the source architecture and its natural environment. After nine years of investigations and many discoveries along various sectors of the system, we feel this is the appropriate moment to offer a comparative architectural analysis of the several styles and strategies for collecting water into the system, particularly regarding materials, design, and construction technique.

Old Water into New Amphoras: The Roman Water Footprint and Ostia
Mark A. Locicero, Leiden University

This paper presents the results of the Roman Water Footprint, a methodology developed to integrate water infrastructure systems with paleoenvironmental data and innovative approaches to the social aspect of water (i.e., hydrosocial). This contextualized approach adapts methodologies currently used to calculate the sustainability of water usage in modern cities. The city of Ostia is an ideal site for investigating aspects of Roman water systems, as it possesses traces of urban infrastructure from nearly all periods of Roman civilization. Water lay at the core of the city's identity: located at the confluence of the Tiber River and the Mediterranean Sea, it had easily accessible groundwater and was separated from Rome by inland marshes. Excavations from the mid 19th century until today offer an abundance of archaeological, epigraphic, and literary evidence for daily life in Ostia, the early harbor city of Rome.

This paper presents the final results of incorporating this modern, diversified approach to water systems with the rich archaeological evidence from Roman Ostia. Three city blocks (insulae) from Ostia were chosen as case studies for this project (III, i; IV, ii; V, ii), with each block possessing a chronology ranging from the Republican to Late Antique period. Through a detailed examination of the standing remains, archival photographs, and previously published material, differentiated systems of supply, usage, and drainage were identified in each insula. Infrastructure data were combined with recent studies of urban flooding and faunal remains, together with cultural representations of water.

When all these factors were combined, it is possible to quantitatively identify temporal trends both in how each insula functioned hydraulically and, more importantly, in how it interacted with its wider environmental and social landscape. It is possible to compare the water histories of entire city blocks to others, but also to identify how that city block compares with its neighbors in different temporal periods.

The Roman Water Footprint method offers a flexible approach to investigating the urban water system over time and highlights the interconnectivity of discrete data sources. This methodology can be adapted to other scales of investigation and begins to explore the sustainability of past urban societies, forming a new dialogue between past and present water habits, problems, and solutions.

New Evidence from the Liman (Hurmalık) Hamamı: The Roman Bath Revised
Serap Erkoç, Anadolu University, *Asuman Lätzer-Lasar*, University of Cologne, and *Mustafa Koçak*, Römisch-Germanisches Zentralmuseum

The so-called Liman Hamam (harbor bath) is a bath complex that is situated in the northern area of Patara, the capital of Lycia. The bath complex is embedded in the public cityscape next to representative buildings, such as the basilica, the so-called Corinthian temple, and the inner harbor. It is also facing the Modestus arch, which is one of the main gates to the city via land route as well as a spectacular nymphaeum. The central location of the bath and its broad accessibility made the complex a key place in the urban development of the Roman city. The results of the

latest excavations, conducted between 2013 and 2016, have led to a revision of the building´s chronology, which has also had an effect on its utilization phases and on the urban development of the Lycian capital in general.

The Liman Hamam is the first scientifically excavated bath complex in Lycia. The building complex shows the standardized sequence of a Roman bath: frigidarium, tepidarium, and caldarium. Farther east of the frigidarium a large room with a marble floor is attached, the basilica thermarum. The construction of the complex building was previously dated between the end of the first and the beginning of the second century C.E. But the latest excavations brought to light that the basilica thermarum was attached much later to the building—during the middle of the third century C.E. This new finding allows us to revise the utilization phases of the bath, as well as reconsider the urban planning in this central spot of the city. The new evidence will significantly contribute to the research about structural aspects of bath architecture in the region of southwestern Anatolia and beyond.

SESSION 5D: Colloquium
Yeronisos off Cyprus: Twenty-Five Years of Discovery on "Sacred Island"

ORGANIZER: *Joan Breton Connelly*, New York University

Colloquium Overview Statement

During the first century B.C.E., vast resources were invested in the small uninhabited islet of Yeronisos, just off the shores of western Cyprus north of Paphos. Circled by steep cliffs and lacking a water source, Yeronisos was an unlikely and challenging place for settlement, and yet within a few years "Holy Island" was transformed into a significant destination. A cistern with broad fan-shaped impluvium was built for the collection of water. A quarry was dug for gathering construction materials, including marl for mortar and calcarenite rubble for foundations. Prefabricated limestone ashlars with mason's marks were brought over from the mainland, along with architectural members showing elaborate cornice moldings, Ionic half columns, Doric friezes, and lion's-head waterspouts. The interior rooms of the buildings were plastered white and decorated with yellow and red paint. A complex of square rooms filled with pottery bears witness to food preparation and consumption. Quantities of terracotta roof tiles bear further witness to some of the most elaborate late Ptolemaic structures preserved on Cyprus.

In 15 B.C.E., a great earthquake toppled these buildings. Destruction debris sealed the well-preserved floors beneath, filled with imported and local Hellenistic fine and plain ware pottery, lamps, coins, ostraka, and amulets. A preponderance of bronze coins minted at Paphos and dating to the reign of Cleopatra and her son Ptolemy XV Caesar (47–44 B.C.E.) give evidence of robust activity during the final years of Ptolemaic rule.

Over the past 25 years, New York University's Yeronisos Island Excavations have unearthed a series of rare (if not unique) finds: the only Ptolemaic ostraka found to date on Cyprus; a stone *parapegma* with monthly calendar; stamp seal amulets decorated with both traditional Cypriot and Ptolemaic Egyptian motifs;

and a circular platform that could be a dancing floor. Pinakes, stone trays with compartments, amulets, and a scarab showing Sekhmet attest to ritual activity. An ostrakon reading "Apollo" may or may not give the name of the divinity worshiped on Holy Island.

This colloquium brings together international scholars who have worked and published on Yeronisos. It is a first opportunity for them to present at the annual meeting of the AIA and to engage in fruitful discussion with members before completing chapters for our major publication, *The Island Beyond the Island*. This work promises to shed important light on the intersection of the Ptolemaic Egyptian and indigenous Cypriot cultural orbits.

Late Hellenistic Pottery and Glass from Yeronisos

Jolanta Mlynarczyk, University of Warsaw, and *Mariusz Burdajewicz*, University of Warsaw

Yeronisos has yielded a rich assemblage of pottery from a chronological window of ca. 75–30 B.C.E., with some ceramic fragments of earlier date. This assemblage comprises a variety of vessels imported from a number of external sources, ranging from Italy to the Levant (Lower Egypt included). In terms of the forms of vessels recovered, the ceramic corpus exhibits a number of peculiarities, including the prevalence of drinking bowls, the presence of strainer juglets (probably for preparing herbal infusions), and cooking pots that are relatively small in size. All these features suggest that the diet of the inhabitants of Yeronisos was composed mainly of liquid food served in small portions. Particularly noteworthy is the high ratio of Cypriot Sigillata forms of the first century B.C.E. In addition, many vessels are made from a fabric that is fairly close in its macroscopic appearance to Cypriot Sigillata. We have identified this fabric as "Pink Powdery Ware" (PPW). It represents an important link between the local/regional Late Hellenistic tableware of southwestern Cyprus and the "classic" Cypriot Sigillata. It may thus be argued that Cypriot Sigillata was western Cypriot in origin. Another, much smaller pottery assemblage testifies to a re-occupation of the island in the 5th-7th centuries C.E.

The sealed floors of Yeronisos have also yielded an interesting assemblage of Late Hellenistic cast glass vessels originating from the Syro-Palestinian coast. These were imported to Yeronisos, probably via Paphos. The special significance of this assemblage of cast glass bowls lies in the very excellent contexts from which it has been excavated. Together with objects found on the same floors, this material provides valuable insight into local ritual. Glass continued to be imported to Yeronisos during the Byzantine period, when a small community, most likely monks from the mainland, used the island as a kind of hermitage, one step removed from their home basilicas across the way.

Seals and Amulets from Hellenistic Yeronisos
Dimitris Plantzos, National & Kapodistrian University of Athens

A number of objects of amuletic form and—presumably—function pose some interesting questions, while they may also help clarify aspects of life on Ptolemaic Yeronisos. Twenty among them, cut in limestone, resemble loomweights, though not all are provided with string holes. Some are pyramidal in shape, others conical or rectangular, ranging from elongated to squatish (one seems to be part of a cube). These limestone "amulets," peculiar to Hellenistic Yeronisos, could be classified as stamp seals, since 14 of them are cut with representations or scratched with markings on their resting side, which thus becomes a sealing surface, while seven of these are also cut with devices on their sides and top. These devices are of varied technique, style, and subject matter, but a preference for Ptolemaic iconography may be discernible: two portraits stand out, both attributable to late Ptolemaic royals, and three or four more images relate to Pharaonic or Ptolemaic regalia; a further number of devices is more Cypriot in character. Most seem to have been cut locally on the island, as their rather unassuming, coarse appearance hardly suggests a specialist craftsman.

Yet what were these artifacts doing on Yeronisos? The island's microcosm seems pretty far from the turmoil of political events and military confrontations of the first century B.C.E., even though Yeronisos is the first part of Cyprus one approaches sailing from Alexandria. Its settlers may have never confronted royalty, though they certainly had some, even if vague and incomplete, notion of the royal comings and goings between Alexandria and Cyprus. The Ptolemaic imagery they chose to employ in their seal-like amulets suggests a connection to Ptolemaic ideology, and the depiction of the two portraits so far discovered indicates a familiarity with types seen elsewhere, be that in coinage, glyptic, or other. The significance of these finds is less easy to establish, however. Their distance from the court and the grand administrative centers is such that it fogs our understanding of distribution and interaction. Though these images may well be reaching us in a quite distorted fashion, they seem to be painting the scenery of a cultural outback, vibrant and parochial at the same time. Cypriot realities are entangled with memories (or fantasies?) from a distant Ptolemaic state. These amulets are as bicultural as they are bilingual.

A Late Ptolemaic Cliffhanger: The "West Building" at Yeronisos
Pieter Broucke, Middlebury College

Yeronisos preserves substantial rubble wall foundations attesting to monumental structures, later robbed out for Byzantine basilicas on the mainland. Still, the foundations themselves give us much information. They preserve plaster setting beds for ashlar blocks, known from Ptolemaic construction technique. Among the *disjecta membra* that remain on the island there are large dressed limestone blocks with traces of plaster. Molding fragments from destruction debris attest to the collapse of Yeronisos' buildings in the earthquake of 15 B.C.E.

Of special interest is a structure, largely fallen into the sea, on the westernmost cliff. Excavated in 1981 by Sophocles Hadjisavvas for the Department of Antiquities

of Cyprus, "West Building" showed evidence of reuse as a kitchen during Early Byzantine times. In 1993, the New York University team dug a foundation trench along the building's eastern facade and established an original construction date in the first century B.C.E. Votive trays, lamps, and an altar suggest a sacred function.

From West Building's immediate vicinity, dozens of architectural fragments were recovered, including an engaged Ionic half column and egg-and-dart moldings. To the north lie three epikranitis blocks with crowning moldings and mason's marks. Similar marks are found on geison blocks. These are related in scale, material, and execution and are of three types: a raking geison and two kinds of horizontal geisons with Ionic dentils. A corner geison fragment confirms they belonged to a gabled roof with pediments. It is unclear whether these blocks belong to one or several buildings, and to which foundations they belong. I argue that they could be from one structure: West Building.

In 2016, study of the building's eastern wall revealed projections for the lowermost course at both corners. These carry intersecting incisions, indicating that the structure was laid out with great precision. Across the east side of the building, the distance between these incised lines is 8.486 m. This dimension corresponds to 16 units of 0.530 m, a length that would be meaningless (though it closely matches the Egyptian ell) were it not also found on blocks nearby. I offer a reconstruction of West Building as a Ptolemaic temple-style structure in the Ionic order. In scale and plan, it is comparable to the Hellenistic temples of Apollo Hylates at Kourion and Aphrodite at Fabrica Hill, Nea Paphos. Commanding a spectacular setting at the westernmost edge of Yeronisos, it would have looked out to sea and the sailors making their way from Alexandria to Rhodes and beyond.

Inscribing Time: A "Perpetual Desk Calendar" from Yeronisos

Ilaria Bultrighini, University College London

This paper presents the first comprehensive study of a small, fragmentary inscription on limestone from Yeronisos, probably dating to the early first century B.C.E., which is here interpreted as an example of ancient devices known as *parapegmata*. These are instruments attested in different shapes and materials—including in literary form—in Greek and Roman contexts, which were used to keep track of days, either within calendar cycles or within a cycle of astronomical phenomena. Epigraphic *parapegmata* are typically inscribed with a continuous sequence of days, some or all identified with a number, date, or astronomical or weather phenomenon, and with a small hole allocated for each day. By moving a peg or pegs from one hole to the next each day, the user of the device kept track of the involved cycle(s). It should be noted that the Yeronisos *parapegma* counts among a handful of extant Greek *parapegmata* in epigraphic form—most of the preserved examples are not inscriptional but literary *parapegmata*, which either provide information about astronomical events alone or correlate astronomical phenomena with meteorological conditions. Moreover, while the other Greek inscriptional *parapegmata* are large plaques, thus originally meant to be displayed in public spaces, and are either astronomical or astrometeorological, the Yeronisos *parapegma* is a small tablet that was presumably used by an individual and that kept track of the days of the month. Thus, the Yeronisos *parapegma* is a rare example of Greek

epigraphic *parapegma*, and the first Greek *parapegma* of whatever type—literary and inscriptional—meant to keep track of the days of the month. In this paper, I reveal that two possible parallels of similar "perpetual desk calendars" in fact exist: a clay tablet from Abdera in Thrace and a small marble fragment from the Athenian Kerameikos. As the Yeronisos *parapegma*, these two examples, too, are datable in the Late Hellenistic period. Despite its fragmentary state, the Yeronisos *parapegma* is a unique and meaningful discovery that gives an intimate glimpse of life on Late Hellenistic Yeronisos and that expands our understanding of ancient Greek calendrical devices.

View from the Mainland: Rock-Cut Tombs and Burial Practices Opposite Yeronisos
Luca Cherstich, Independent Scholar

Where did the people who visited Yeronisos live? Where were their final resting places? This paper looks to the rock-cut tombs on the mainland opposite Yeronisos and a small necropolis just inland. The rock face above the modern harbor at Ayios Georgios preserves 32 well-weathered tombs dated to the Roman period. Farther afield, roughly 750 m inland to the northeast, a place called "Meletis" preserves 11 monumental rock-cut tombs equipped with dromoi and underground chambers. These stand out for their elaboration, adorned as they are with architectural elements including pediments, pilasters, and moldings. Though it is often dated to the Roman period, we argue a Hellenistic origin for the necropolis. Possibly belonging to a restricted family or clan with claim to this specific ground, it is quite separate from the settlement at Ayios Georgios and follows a different architectural tradition from tombs found there. Meletis tomb exteriors show descending dromoi and architectural facades; their interiors preserve arcosolia, cists and, in some cases, architectural decoration. Though the Meletis tombs were robbed long ago and cleared by workmen, they have never been systematically excavated. These tombs are usually dated to the Late Roman period (owing to arcosolia, lamps, and glass), but the area also revealed Hellenistic ceramics, notably fusiform unguentaria. By their own nature, rock-cut tombs are prone to reuse and modification. The Meletis tombs preserve Hellenistic-style capitals on pilasters and point to an earlier phase, one that may have coincided with the heyday of Yeronisos.

Burials and funerary rituals may be lost, but the architecture within which they took place can teach us much about attitudes toward death. The circulation of visitors through funerary space and the approach route through which they encountered the tomb complex reveals display strategies, organization of space, and variety in the shape and form of burial recesses, all manipulating the experience of the viewer. The Ayios Georgios and Meletis tombs are examined here within the broader regional context of rock-cut tombs of western Cyprus, including the Tombs of the Kings at Kato Paphos. We also look beyond to the wider monumental funerary cultures of the eastern Mediterranean and the role of the Ptolemies in establishing an Alexandrian funerary koine, one that can be grasped even in the small, enigmatic site of Meletis.

Insularity and the Sacred: The Challenges of Ptolemaic Yeronisos
Joan Breton Connelly, New York University

Why were extravagant resources lavished on a tiny, uninhabited islet off the western shores of Cyprus in the middle of the first century B.C.E.? Lacking a water source and surrounded by 21 m cliffs, Yeronisos ("Holy Island") was a challenging site for Hellenistic builders who imported quantities of prefabricated ashlars and decorative architectural members across the sea from the mainland. Yeronisos is equally challenging for archaeologists who endeavor to make sense of the abundance of rare (if not unique) finds uncovered here across 25 years of excavation.

Yeronisos preserves the only Ptolemaic ostraka found to date on Cyprus; a concentration of bronze coins minted at Paphos during the reign of Cleopatra VII and Ptolemy XV Caesar (Caesarion); unique limestone stamp seal amulets bearing traditional Cypriot and Ptolemaic Egyptian motifs; a rare stone *parapegma* (calendar); a fascinating sequence of imported fine ware pottery; intriguing pinakes and stone offering trays; a significant assemblage of cast glass bowls from the Syro-Palestinian coast; a carafe-shaped cistern with unique fan-shaped impluvium; a circular platform (dance floor?) comprising 430 tons of imported marine silt, dredged from the sea floor; and quantities of Hellenistic roof tiles bearing witness to substantial Ptolemaic constructions.

Who was sacred on our Holy Island? A case can be made for Apollo on the model of Delos, possibly on epigraphic evidence and perhaps on a Horus-Apollo-Caesarion connection. A Byzantine basilica built atop reused Hellenistic ashlars at the east end of the island attests to the longevity of worship on Yeronisos. The place-name of the pilgrimage site just opposite on the mainland—Ayios Georgios (St. George)—may also hint at an Apollo connection. Within Coptic Egyptian contexts many sites once sacred to Apollo become the focus for veneration of St. George.

Considering Yeronisos within the context of insularity and the sacred, we look to Delos, Samothrace, Kos, even Philae, and special Ptolemaic cult interests. Yeronisos presents an ideal case study for a "maritime small world" comprising offshore islet, coastscape, and mainland settlement with connections to the Ptolemaic capital at Paphos as well as the rural hinterland of the Akamas Peninsula. Here, for a fleeting moment, a local Cypriot cultural orbit intersected with the wider Ptolemaic Egyptian world.

Ostraka and Graffiti from Yeronisos
Angelos Chaniotis, Institute for Advanced Study, Princeton, and *Benjamin Wieland*, University of Freiburg

The excavations at Yeronisos have not yet produced any monumental stone inscriptions, but finds include a small but interesting group of inscribed stones (other than masons' marks): two fragments of a *parapegma* (listing numbers of days); amulets, including one inscribed with personal names; three pierced disks; and one stone basin fragment. In addition, 17 graffiti engraved on vases (mostly Eastern Sigillata A, Late Hellenistic), two Rhodian stamped amphora handles, and a painted ostrakon. The graffiti mostly consist of abbreviated names and

monograms (presumably owners' inscriptions), but there are also two fragmentary texts that seem to record transactions. Ostraka with painted inscriptions are rarely attested outside of Egypt; two other groups have been found in Rhodes and in Chersonesos (Crete). The ostraka from Yeronisos probably records deliveries of goods (to garrison soldiers? to a sanctuary?). This group of inscriptions significantly contributes to our knowledge of the culture of writing in Hellenistic Cyprus.

SESSION 5E
Reading Images, Looking at Inscriptions

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

The Visual Accusative: Syntactical Strategies in Roman Republican Dedications of Spoils
Fabio Luci, Durham University

This paper investigates the relationship between artworks and inscriptions erected as dedications of spoils by Roman generals during the third and second centuries B.C.E. The booty won by Claudius Marcellus (*CIL* 1(2) 608, 609) offers a suitable test case, offering a model also followed by other, similar generals' dedications: F. Nobilior (*CIL* 1(2) 615), A. Glabrius (*AE* 1993, 0643), and Tituli Mummiani (*CIL* 1(2) 627–31). These dedications were erected in different places, in Rome and Italy, and include both the plundered visual artworks and the new textual inscriptions placed on their stone bases. The relationship between the visual object and the text is strategic and important to the monument's overall meaning. A syntactical approach, building on the work of John Ma (*Statues and Cities* [Oxford and New York 2013]) for the Greek world, provides significant information on how the whole composition could be "read" by its audience. The result is a methodology that can help us analyze republican Roman booty monuments even when the artworks are now lost.

I analyze the inscription of Claudius Marcellus, focusing on its syntax to show how the statue itself is a surrogate for the missing direct object of the inscription's syntax. Metaphorically speaking, the statue becomes part of the syntax of the inscription, whose accusative was intentionally not expressed by words. This strategy creates a tension for those who read the apparently incomplete sentence, leaving to the audience the task of completing its meaning. Visual and textual aspects are parts of the same composition; they cannot be analyzed separately.

My analysis reveals that words and visual elements work synergistically to communicate their message to the audience. First I overcome the problem of the missing artworks by simultaneously focusing on the syntax of the text, which includes the artwork (direct object) in its structure, and considering the text as part of the missing visual artwork's body, just as a torso or a head are to a fragmentary statue. Second, my syntactical approach to the inscriptions offers a "guideline" used by the audience to "read" the whole composition. The visual artwork is part of the text, which is not its tag, nor its caption. Conversely, text provides the logical

order encompassing the whole monument. Through the syntax of the inscription, the elements of the phrase—subject, verb, and then the direct object, metaphorically embodied by the visual artwork—are perfectly organized and dependent on each other.

The "Odyssey Landscapes" and Their Inscriptions: The Monumentality of the Minuscule

Patricia A. Butz, Savannah College of Art and Design

The "Odyssey Landscapes" are the best known of the Second Style Roman wall paintings that have for their subject matter, as validated by Vitruvius, the wanderings of Odysseus. The monumentality so keenly associated with architecture in the Second Style—here the faux portico consisting of molded pilasters in brilliant Pompeii red with golden composite capitals—becomes "merely" the framing device on the true monumentality beyond, the overwhelming environment of the *Odyssey*. It is all the more astounding, therefore, that these compositions, eight in number at the Vatican Museums and a single fragmentary panel at the Palazzo Massimo, carry minute Greek inscriptions. These inscriptions consist of single words, whether names of individuals or natural features in the landscapes. The inscriptions have long been regarded as labels or captions, with Greek vase painting as a suggested parallel; yet this may be an easy way out. As J.J. Pollitt (*Art in the Hellenistic Age* [Cambridge 1986] 185–86) observes, the whole series is a Hellenistic work of art before anything else and a product of the hybrid Mediterranean culture of the first century B.C.E. with all of the ramifications. The paintings are large-scale (1.16 m high), and regardless of their original location on the wall, which the paper discusses, the inscriptions (averaging 0.32–1.02 cm high) require close-up inspection, not only to read them but to appreciate their extraordinary placement. While this is of interest in itself, the potential meaning is even richer. The wispy letterforms, some exquisite in their paleography, have not been examined for their *ductus*, their occurrence vs. their nonoccurrence in key scenes, the repetition of words, or the exact manner in which they affect the negative and positive fields of the landscapes' imagined space. The miniaturized text is shown to have a bearing on other major issues, including the very definition of a continuous narrative in dynamic with the repetition of the faux-columnar framing device that attempts to divide it, and the impact that such writing (or simply knowledge of it) has on spectator relations.

This study of the landscapes is very recent and was made with special permission of the Vatican and Museo Nazionale Romano in May 2017. The paper argues that letterform as ornament is strongly at play here as well as a highly selective link between text and image, and that these inscriptions may be seen as precursors to the precious minutia of the Third Style.

A Cunning Plan: Interpreting the Inscriptions of the Severan Marble Plan (Forma Urbis Romae)

Elizabeth Wolfram Thill, IUPUI

The Forma Urbis Romae, also known as the Severan Marble Plan (ca. 203–211 C.E.), was a large-scale map of Rome showing every building in the city, from amphitheaters to apartments, and as such has become one of the most famous artifacts from the ancient city. Scholars have explored the Forma primarily as a record of ancient cartography and topography, seeking to identify depicted buildings and connect them to known historical structures. But while invaluable, the sort of close examination of fragments practiced by modern scholars in pursuit of such interests obscures the ancient display experience. The Forma was originally four stories tall, meaning it was a map that for the most part could not be read in detail. This includes the numerous inscriptions that label various structures, roads, and regions. While scholars have explored these inscriptions as they relate to individual buildings, questions remain about the functions of the inscriptions as a group. Why were some buildings chosen to be labeled but not others? Why are perfectly identifiable buildings—for example, the Flavian Amphitheater—still given redundant labels? Why were labels included at all if they could not be read? This paper seeks to explore these questions and address voids in scholarship. A systematic quantitative analysis of the 73 legible inscriptions preserved on the 1,194 known fragments reveals that structures apparently are not labeled according to location or chronology, whether they are public or private, or whether they are otherwise identifiable. Instead, building type, and more importantly the associations of that building type, seems to have been the driving factor behind what was selected to be labeled. Religious structures such as temples, infrastructure such as roads and aqueducts, and leisure venues such as baths and gladiatorial facilities dominate the data set. These are exactly the same types of resources that were legendary aspects of the capital city, immortalized in texts, coins, and sculptural reliefs. By calling attention to certain building types and creating a hierarchy of significance, the inscriptions not only individually identify buildings but collectively identify the depicted city as the legendary architectural wonder Rome. This interpretation of the inscriptions reevaluates the Forma as more than a map, situating it instead as a monument embedded within a tradition of defining and glorifying Rome in relation to its architecture.

Solvere corporeos meruit nodos: A New Reading of the Kline Scene on the Bethesda Sarcophagi

Alison C. Poe, Fairfield University

This paper considers a debated scene on the "Bethesda Sarcophagi," a group of roughly a dozen sarcophagi and fragments with consistent subject matter likely produced in Rome (and possibly Gaul) in the late fourth century. The scene occurs in the lower of two central registers and presents a male figure on a draped kline, in some cases asleep, in others alert and gesturing toward figures surrounding the couch, or perhaps toward the full-height blessing figure of Christ next to the scene. The image occurs among several New Testament narratives: at the sides, Christ

healing blind men and a kneeling woman (the *haemorrhoissa*?), Zacchaeus in the tree, and Christ's entry into Jerusalem, all full height; in an upper register, directly above the kline scene, Christ healing the paralytic, with a wave pattern and an arcade specifying the setting as the Bethesda pool (John 5:2–9).

Most scholars identify the main figure in the lower register either as the paralytic before his healing or as another invalid at Bethesda. As Françoise Monfrin has noted, however, this man wears a long tunic and pallium, whereas the paralytic wears his conventional exomis tunic. For Monfrin, the former is the centurion's slave healed at Capernaum (Matthew 8:5–13; Luke 7:1–10), perhaps conflated with the official's son healed just before the miracle at Bethesda (John 4:46–54).

This paper submits that fourth-century viewers would have interpreted this reclining figure first and foremost as the occupant of the sarcophagus. The image adheres compositionally to Greek and Roman funerary portraits of the departed alive or dead on a kline, alone or as the centerpiece of a *conclamatio*, banquet, or mythological narrative. On other fourth-century Christian sarcophagi, some portrait subjects wear very similar drapery (e.g., on the Vatican "Two Brothers" sarcophagus), and some inhabit the same pictorial space as biblical stories (e.g., on the Santa Maria Antiqua Jonah sarcophagus).

The location of the reclining figure at bottom center invites associations both with the actual body lying in the sarcophagus and with the healed paralytic in the scene above. A verse epitaph on one sarcophagus in the group celebrates the liberation of the dead woman from her limbs and from the "knots of the flesh" (caret membris vivens per saecula XPO . . . solvere corporeos meruit pulcerrima nodos; Trout 2011). On the Bethesda sarcophagi, this paper contends, Christ frees both the paralytic and the deceased from the limitations of the mortal body.

Mapping a Map: Understanding the Madaba Mosaic Map Through Cartographic Tradition and Modern Mapping Technology
Emily R. French, University of Pennsylvania

The Madaba Mosaic Map, a sixth-century C.E. church floor in Jordan, is a sprawling, walkable, polychrome depiction of the Holy Land in hundreds of thousands of tesserae. Spanning from the Phoenician coast to Egypt and from the Mediterranean to the eastern Jordanian deserts, the map's astounding detail includes numerous buildings, towns, and cities, natural features of terrain, and one of the largest collections of Byzantine public writing anywhere. Much of the scholarship on the Madaba map focuses on its religious aspects, including identifying the biblical stories and events it records as well as matching the places on it with those listed in pilgrimage texts like Eusebius' *Onomasticon*. A vastly understudied aspect of the Madaba map, however, is its nature as an actual "map". By studying it from a cartographic point of view and placing it in dialogue with other Roman maps from the Late Republic to late antiquity, from portable tablets to public portico displays, this paper addresses how the Madaba map depicts its landscape and what purpose particular modes of display could serve, most notably the combination of actual space and perceived space, and gives new insights into how this map may have been used and experienced by those encountering it. GIS investigation, including georeferencing and slope analysis, demonstrates how the map is relatively

geographically accurate in both its natural and man-made features, while a multiscalar presentation of time and alterations in proportion are two of the ways the Madaba map simultaneously depicts a Christian perceptual landscape. In picturing the Holy Land with an underlying geographical authenticity and authority, the map can then claim authority over and authenticate the biblical and Christian events, peoples, and places it records. Those interacting with this mosaic floor likely experienced it aurally and physically—through movement over it—as part of the worship and liturgy, as well as visually; through such a multisensory presentation the map provides both visual and conceptual frames of reference for its viewers' religious lives and encourages them to situate what they know within the depicted landscape and in a larger spatial and geographical context. The Madaba Mosaic Map, with its authoritative claim over the landscape and biblical history and combination of sensory experiences, gave its viewers what is now studied as "map-consciousness" and broad spatial awareness of the landscape it depicts.

SESSION 5F
Greek Sanctuaries

CHAIR: To be announced

The Treasuries on Delos and the Athenian Empire, ca. 480–454 B.C.E.
Eric W. Driscoll, University of California, Berkeley

Arrayed in an arc to the north of the temples of Apollo on Delos one can still see the foundations for five treasuries (*Guide de Délos* 16–20), *oikoi* or *thesauroi* in Greek. One is archaic; the other four were evidently built around the same time as the Grand Temple (*GD* 13), with which they share similarities in construction and in capital profiles. That temple has always been attributed to the period ca. 475–450 B.C.E., its state of incompletion in the fifth century matching up well with an assumption that it was abandoned in 454 when the treasury of the Delian League was relocated to Athens. It follows that the four Early Classical *oikoi* were also built during the period when the league's treasury was headquartered just a few paces away in the Temple of Apollo (Thuc. 1.96–7).

This paper shows that these treasuries have significant ramifications for our understanding of the early history of the Athenian empire. After the battle of Salamis, Themistocles sailed around Paros, Karystos, and Andros, extorting money from cities he accused of Medism during the recent invasions—a forceful exaction of a proto-tribute not unlike the later practice of *argurologia* under the empire proper. Insofar as we can tell from the island's Hellenistic inventories, at least two of the treasuries were built by just these states, Andros and Karystos. Nor are the treasuries on Delos simply dedications in a Panhellenic sanctuary; they are also buildings meant specifically to hold valuable treasure and were set up during the time when many Aegean cities were bringing tribute to be stored in the same sanctuary, as tribute to the Athenian-led alliance.

I argue, then, that the treasuries link the dynamics of Medism to the payment of tribute, which itself is the sine qua non of the Delian League. By constructing them,

Andros, Karystos, and two less certain poleis were asserting their full participation in and dedication to the Greek cause, but they were also declaring themselves partners of Athens within the league, rather than its subjects in an empire. Insofar as Themistocles and others sought to identify anti-Persianness with financial contributions to the Athenians (Hdt. 8.111), Andros and Karystos were emphatically asserting that their treasure on Delos was not just for the Athenians. On a discursive level, then, I show how the treasuries intervened in the construction of the Delian league itself by challenging Athenian imperialism.

A Well-Crafted Narrative of the Sanctuary of Zeus at Nemea
Stephanie Kimmey, University of Missouri, Columbia

Reconstructing activity at a sanctuary can be challenging when the site was not used on a regular basis, such as the Panhellenic Sanctuary of Zeus at Nemea, which was occupied every two years. Rather than a consistent accumulation of layers of construction, destruction, or habitation, these layers were often lost at Nemea as the site was cleaned up in preparation for the festival and games. These actions resulted in constant changes, which could scatter, hide, or confuse the origin of deposits. But Nemea provides an opportunity to reconstruct sanctuary activities through the 10 wells built throughout the site that were not as easily cleaned, thus preserving important information about the sanctuary.

While wells are common throughout the ancient world, study of them is limited. The most standard treatment either looks at the contents and history of an individual well or considers wells as one of several contexts or findspots in a larger study of artifacts. Wells provide a useful trove of material for typological or chronological studies of specific types of artifacts, but I argue that wells should also be examined as discrete units of information. The diversity of the wells at Nemea, in terms of their topography and chronology, provides the clearest evidence for reconstructing activities ranging from ritual and festival events to routine sanctuary acts, like the maintenance of dedications and site cleaning. In addition, these wells preserve a wide range of material from ceramics to inscriptions, allowing for a more holistic study.

This paper, which summaries the conclusions from my dissertation research on the wells, presents my methodology for the study of wells as individual units through reconstruction of the individual narratives of each well based on the depositional events through which the objects of a given period ended up in a well. Nemea's 10 wells are unique, as they can be studied as a group to trace patterns and differences among them, each with its own narrative of construction and use shaped by its location within the sanctuary. These wells were hubs for different activities corresponding with the built architecture. They provide a new way to understand the site and the activities that took place there, and their treatment in this way breaks new ground in recognizing the usefulness of wells within the discussion of Greek sanctuaries and religion.

Expressions of Delphic Association in Thessaly from the Archaic to the Roman Period

Gino Ruggiero Canlas, University of Alberta

Archaeological evidence suggests that many sanctuaries in Thessaly asserted a close connection with the Sanctuary of Apollo at Delphi. This paper presents a diachronic analysis of these assertions and argues that they shed light on the formation, negotiation, and maintenance of the wide array of community identities in Thessaly, simultaneously serving the region's ethnic unity. Thessaly was one of the founding members of the Delphic Amphictyony in the Archaic period and had a controlling influence in its administration. The nature of this relationship to Delphi evolved as Thessaly and its *perioikoi* became occupied by Aetolians, Macedonians, and Romans. Assertions of Delphic association are visible in the archaeological record through the depiction of Delphic imagery (omphaloi, tripods, and the god himself) and in the monumentalization of cultic spaces dedicated to Apollo. Thessaly has been persistently studied as an ethnically homogenous part of Greece, but as recent studies have shown, Thessaly was also inhabited by foreigners, subject populations, nomadic groups, and indigenous communities from the Archaic to the Roman period. I argue that this demographic complexity results in the appropriation of the Thessalian connection to Delphi, which served a wide range of agendas.

My paper focuses on expressions of associations with Delphi within Thessaly as a case study on Thessalian religious identities, which has not been thoroughly studied from an archaeological perspective. I examine the archaeological evidence for sanctuaries dedicated to Apollo in Thessaly (Metropolis, Soros, Eretria, Korope, Pythion, Tempe), as well as private dedications to the god. I demonstrate that the nature of these religious expressions formed microregional patterns within Thessaly, which developed as Thessaly's relationship with Delphi and Greece changed. The result of this study shows that the inhabitants of Thessaly associated with Apollo in Thessaly to assert their Panhellenic affiliation but also to reinforce a local resistance to broader regional trends (e.g., influx of new populations, political strife, war). The Perrhaibians of Pythion in the Augustan period, for instance, monumentalized their temple to Apollo Pythios both to assert their local importance as an Amphictyonic ethnos and as a means to express their connection to the rest of the Greek world when the Perrhaibians had lost their autonomy to the Thessalian League. The sacred grove of Apollo in the Vale of Tempe, furthermore, whose trees provided the Pythian Games with laurel wreaths since their onset, did not erect any structures until Thessaly had already lost its independence to Macedonia.

Sanctuaries and Public Space in Late Classical/Hellenistic Macedonia

Martin Gallagher, University of Oxford

Ancient Macedonia may have lacked monumental temples in comparison with its southern Greek neighbors, but sanctuaries are more conspicuous in the archaeological record for urbanization in the fourth and third centuries B.C.E. than some scholars have allowed (recently, Christesen and Murray in *A Companion to Anicient*

Macedonia [2010] 428–45). Macedonian sanctuaries should be considered in light of changes in religious architecture after 400 B.C.E., their regional context, and their relationship to public space. I trace developments at Macedonia's largest city (Pella), the ancestral "capital" and site of royal burials (Aigai), the religious center of Dion, and the synoecism of Demetrios I (Demetrias).

In Pella, a square comprising four 47 x 110 m blocks, including the Sanctuary of Darron, water features, a fountain house, and open courtyards, was an important public area before and after the expansion of the city and construction of the monumental agora 3.5 m to the north. In the block north of the central part of the agora, the Sanctuary of the Mother of the Gods communicated architecturally with the agora and may have mediated communication with the palace to the north. The Sanctuary of Eukleia, with its sculptural dedications by the queen mother, may indicate the location of the agora in Aigai. Its relationship to the theater and palace to the south also suggest a role in royal processions. At Dion, the religious cult area was kept separate from the new city plan, like other Greek sanctuaries at important crossroads. The numerous political inscriptions and dedications set up there were positioned along the main land route from the west. Finally, at Demetrias the Temple of Artemis Iolkia was built in the center of the "sacred agora," just beneath (south of) the palace. The temple was either a commemoration of the civic past, with a cult from the most prominent city included in the synoecism (Kravaritou in *Epigraphical Approaches to the Post-Classical Polis* [Oxford 2013] 271–72), or a symbol of the king sitting astride the civic sanctuary (Mili, *Religion and Society in Ancient Thessaly* [Oxford 2015] 201–3).

The sanctuaries are the physical manifestation of the much-discussed role of the royal family in cult, which helped to define the layout of Macedonian cities but are usually considered on the basis of written evidence alone. Redressing their neglect is an important step in understanding the social ideals at the material and psychological heart of public life at these sites.

SESSION 5G
Art and Artisans in Prehistoric Greece

CHAIR: To be announced

New Investigations into Prehistoric Corinth: A Final Neolithic "Cult Vessel" and Continuity of Ritual Practice
Katie Fine, Florida State University

The prehistory of Corinth, arguably one of the most studied cities of Greece in historical periods, has been awarded little attention despite an abundance of material from these earlier levels. This study focuses on Neolithic Corinth through the examination of the so-called Neolithic rhyton, an unusual vessel that has been given the broad designation of "ritual object." This shape appears to have originated in the Adriatic during the Middle Neolithic and spread throughout the Balkans and into the mainland of Greece by the Late and Final Neolithic periods. Investigations carried out from the 1930s through the 2016 season at Corinth have

yielded more than 175 pieces of rhyta. This collection of rhyta far outnumbers any other known site, indicating the centrality of Corinth within this wide Neolithic network. While scholars have previously attempted some discussion of these unusually shaped vessels, there has been no satisfactory study that focuses on their use and meaning for the peoples who were creating them. This paper evaluates the structure and style of the Corinth rhyta both within their Greek context and in comparison with their Adriatic counterparts. The result is a furthering of the dialogue surrounding Neolithic ritual at Corinth and its role within a continuity of practice with areas of the Adriatic and the Balkans.

Nilotic or Not? A Reevaluation of the So-Called Nilotic Scenes from Minoan Art and the Importance of Freshwater in Minoan religion
Ariel Pearce, Temple University

Largely overlooked by scholars, scenes of freshwater reflect an important biotype in Minoan religion. There has been a tendency to label images of rivers, rife with vegetation and fauna, as "Nilotic" without any concerted effort to explain the term. Moreover, scenes that are not considered to be Nilotic have been neglected and underanalyzed. This neglect has led to an assumption that the Minoans only rarely depicted riparian environments, leading, therefore, to a gap in the scholarship regarding the meaning behind these images.

This paper seeks to explore freshwater environments in Minoan art without the assumptions or connotations associated with the term "Nilotic." The iconography of each riverine element is traced to its earliest depictions until the Late Minoan period. Analysis shows that Minoans not only depicted scenes of rivers, marshes, streams, and springs, but they did so frequently from the Middle Minoan II period onward. Riverscapes functioned in sacred spaces but could also be used as topographical markers or even ornamentally. A closer look at the iconography of the genre suggests, in fact, that riparian environments were an important biotype to the Minoans and may have even been understood to be a dwelling place of gods. Moreover, a final comparison with Egyptian parallels demonstrates that although the Minoans were informed by foreign images, the imported images were synthesized in unique and purely Minoan ways, catering to a Minoan audience.

A Game of Stones: An Inventory and Distributional Analysis of the Consumption of Worked Stone at Neopalatial Knossos
Emilie S. Hayter, University College London

During the palatial phases of Minoan Crete, stone was strategically used in monumental and other elaborate architecture, with particular types and variations of stone purposely chosen and used to satisfy specific visual or structural requirements. This indicates that worked stone provided a significant communicator of social meaning within the built environment. The investment of time, labor, and skill in acquiring and working stone for the construction of large architectural building projects confirms its value.

Architectural studies in Minoan archaeology have focused in detail on palace and house layout, room form, and construction techniques. Architecture has often been employed as evidence in interpreting Cretan political structure, through architectural details and room types, yet the component architectural stone is largely treated as a passive backdrop to the trade networks, religious activities, and sophisticated administration managed from the palatial centers. Despite the quantities and varieties of quarried and finely worked stone used in highly structured ways within building complexes, stone material is commonly overlooked by researchers as an expressive medium and interpretive resource.

This talk presents the results of an intensive macroscopic inventory of architectural stone use at the site of Knossos, focusing on Neopalatial construction materials, as used in different parts of the palace, and in elite and nonelite houses in the town. The on-site inventory was combined with image recording through use of a handheld microscope to identify differences among the stones. The presentation analyzes how diverse varieties of stone were worked and deployed as architectural elements. It also highlights the purposeful interplay with other media, such as colorful frescoes, painted wall plaster, timber framing, and other decorative architectural elements, that allows us to better understand the design and social impact of different buildings. Considering the choices of stone, finishing techniques, and placement within structures permits consideration of more complex questions as to why they chose particular stones, their symbolic significance, and the Minoans' perceptions of these materials. The interpretation of how the material, structural, visual, and sensory characteristics of stone resources affected their manipulation allows new insights into Minoan value systems and strategies for the presentation and differentiation of status and power.

Mycenaean Kourotrophoi Figurines and Lateralization Bias: How Recent Neurological Research Explains the Left-Cradling Phenomenon

Chelsea A.M. Gardner, Mount Allison University, and *Carolin Fine*, Florida State University

Recent neurobiological research has found that a left-arm cradling bias is universally present in human and primate females when holding infants, regardless of whether they are biologically related to the children they are carrying. Furthermore, these findings reveal that the lateralization of infant cradling on the left side is the result of right-hemispherical emotional motivation and is an evolutionary adaptation for successful infant nurturing. This paper explores this lateralization bias as it is depicted in Mycenaean kourotrophos figurines, a small subset of terracotta statuettes that depict women holding infants, all of which reflect the left-cradling bias.

There are more than 70 known examples of Mycenaean kourotrophos figurines, from 18 sites in Greece and Cyprus, all of which date to the Late Bronze Age. The majority of these objects derive from two Greek sites in particular: the sanctuary of Aphaia on the island of Aegina (27) and the mainland site of Mycenae (20). The women themselves adhere to the conventional Phi, Psi, and Tau styles of Mycenaean figurines, and in all of the examples the infant is nestled against the woman's left breast or cradled in the woman's left arm. This paper discusses the preliminary

conclusion that the depiction of women holding infants in ancient Mycenaean kourotrophos figurines intentionally reflects the left-cradling bias: specifically, that in the context of ancient representations of kourotrophoi, the depiction of left-side infant cradling was intentional and a reflection of lived experiences between female nurturer and infant, regardless of genetic relationship.

The Dress on the New Tiryns Fresco, the Ayia Triada Sarcophagus, and Linear B Reflections
Bernice R. Jones, Independent Scholar

A recently discovered fresco from Late Helladic IIIb Tiryns of women in procession provides important new evidence for Mycenaean female garment construction. The fresco illustrates unique views of female dress fronts, with vertical bands curving into the armpits, marking them clearly as side bands. Following the depiction and accumulated evidence, an experimental replication of the dress was made by sewing together the banded tops (header bands integral to warp-weighted loom weaving) of two lengths of linen cloth, leaving a center opening for the head to pass through. The band's corners were mitered and turned into sleeve hems. The two cloth's sides were tapered, seamed, and banded together. Draped on a live model posed as in art, the dress matched the representation.

This construction sheds light on dresses on the female baskets carrier and male musicians on the Ayia Triada sarcophagus and the miniature "girl" from Mycenae with vertical bands previously misinterpreted as belonging to the center front. Rendered in profile from the back with information omitted for their dress fronts, they were erroneously likened to Minoan dresses that have center-front bands. To rectify this, new replicas of the dress on the miniature and the baskets carrier were constructed using the side-banded pattern of the Tiryns dress, the baskets carrier's with an overlying bolero. Draped on models, these also matched the original depictions.

Without Minoan precedent, this Mycenaean design debuts on Crete on the Late Minoan IIIA2 sarcophagus. It likely reflects the Mycenaean Linear B Ideogram *162* (TUN+KI) from Knossos of Late Minoan II, identified by Killen as a *khiton*. The ideogram's long garment with horizontal neckline reaching to the sleeve is echoed in the frontal view of the replica. This view clearly identifies the garment, which is the focus of the scribe's tally for the palace inventory. The artist's focus, on the other hand, is to capture a figure in action; the garment is secondary and simply responds to the figure's position, which in Aegean painting is generally profile. This important distinction is clarified in the replicas. The replicas not only decipher the ideogram but also identify the earliest appearances of the Greek unisex *khiton* on female and male figures on the Ayia Triada sarcophagus and its continued later presence on the mainland, particularly at Mycenae and Tiryns.

SESSION 5H
Bodies, Dress, and Adornment

CHAIR: *Mireille M. Lee*, Vanderbilt University

Lion Pins from Hasanlu, Iran: Unusual Artifacts in a Unique Archaeological Context
Megan Cifarelli, Manhattanville College

On Aurel Stein's final "Persian journey" in 1936, he excavated a mound adjacent to the village of Hasanlu in northwestern Iran, where he found a "bronze figurine cast on an iron core representing a grotesque animal showing the general type of a lion." Commercial excavations of the site in the late 1940s turned up four more such artifacts, and local residents brought eight more "lion pins" to the excavators for purchase. During the 1958 season, excavators discovered their first in situ lion pin in a citadel context dating to the site's destruction ca. 800 B.C.E., at the end of Period IVb. In subsequent seasons, 88 more lion pins emerged from the Period IVb destruction, an astonishing 67 of which were discovered in a use context on the ground floor of a single room—the central columned hall of the largest temple at the site (BBII). Unlike most other BBII contexts, identified as temple treasuries and storage, this room held temple furnishings and the remains of dozens of children, women, and men who died when the building collapsed.

As far as is known, these lion pins are unique to Hasanlu, and their interpretation has stirred controversy. Michelle Marcus argued that lion pins played an essential role in the militarized identity for elite women at the site, and Oscar Muscarella has taken issue with her assignment of these artifacts to particular skeletons and her assertions regarding the sex of these individuals. Neither, however, expressed any doubt that these objects were, in fact, a form of dress pin worn at the site. While there is no question that several of these objects were found on the bodies of crushed skeletons, the absence of lion pins from all excavated burials raises the question of whether they should be considered items of personal adornment. That the bulk of the lion pins were found in use in the primary temple at the site suggests, rather, that they were specifically cultic equipment. Further, we may glean a hint of their cultic function through comparison with a slightly later Urartian figurine of a female cult statue shown with an analogous lion pin. Like components of the dress of a cult statue, these lion pins may have been a means of eliciting the presence of the deity, surely an appropriate activity for the desperate citizens of Hasanlu to have engaged in at this moment of existential crisis.

The Impenetrable Body: Armor, Eroticism, and the Male Nude in Greek Art
Marina Haworth, North Hennepin Community College

This paper examines the tensions presented by the polyvalent meanings of the male nude in ancient Greek culture. In particular, it focuses on the conundrum of anatomical armor and representations of warriors as nude in battle. Bronze armor (the cuirass, helmet, and greaves) is normally left out of the discussion of Greek

nudity, although its design is intricately linked to the concept of the male body. Furthermore, Susanne Turner and Stewart Flory have noted that the soldier, encased in anatomical armor, is indeed literally embodying a statue, while Susanne Ebbinghaus has suggested that armor functioned as an "impermeable skin." Most importantly, the desire for invulnerable skin is attested in Greek mythology in the stories of the greatest Greek heroes, Herakles and Achilles. In his first labor, Herakles defeated the Nemean lion, whose hide was impervious to weapons. Herakles then used the lion skin itself as his own armor. As an infant, Achilles was put into fire by Thetis, as if she were forging his body out of bronze, desiring his immortality.

I argue that in early red-figure vase painting the tension between the nude-appearing armor and the vulnerability of the young warrior's eroticized flesh is the frisson that made such scenes so popular on symposium ware. Pots such as the Sarpedon krater (Villa Giulia L.2006.10) deliberately blur the lines between the depiction of nude, vulnerable flesh and anatomical armor. The reverse of the krater shows an eroticized scene of a young man arming himself, bending over to strap on his greaves. Other pots, such as a cup by Onesimos (Boston 01.8021), depict a battle scene in which the warriors are naked, save for helmets and barely distinguishable greaves, as they deliver extremely sexualized mortal wounds on each other. And the Sosias tondo in Berlin (F2278) deliberately highlights the contrast between the body armor of the soldiers and the vulnerability of the flesh, in the exposed genitals, and the wound on Patrokles' arm that Achilles is binding.

This examination shows that the male nude in Greek art was conceptualized as a homoerotic contradiction: the vulnerability, the desire for impermeability, and the erotization of the "beautiful death," and that all of these ideas are reified and performed in the anatomical sculpted armor of the historical Greek panoply.

Seeing Jewelry in Classical and Hellenistic Attic Vase Painting
Alexis Q. Castor, Franklin & Marshall College

The expansive iconographic repertoire found on Attic vases would seem to be a valuable source for Greek costume practices. But despite this variety, artists rarely focused on dress details that interest us today. Depictions of jewelry illustrate the point. Painters typically render jewelry as a series of blobs and squiggles set at women's ears, necks, and wrists. Exceptions occur, of course, but as a rule, vases show accessories only in simplified form. This schematic approach by artists deprives us of evidence for jewelry types that circulated in Attica, a region notoriously poor in actual finds of jewelry. If vases cannot supply reliable evidence for types, are there other ways we should "see" jewelry? By surveying imagery in which jewelry is prominent—wedding scenes, for example—and also considering scenes in which ornaments are lacking, I shift focus from jewelry as a costume element to a broader consideration of the social meaning of jewelry. Vase painters highlight jewelry in certain narratives and capture its tactile and visual experience through added clay and gilding. I argue that such enhancements can educate viewers about the value of adornment even if they cannot distinguish specific ornament types.

This study further considers the unexpected prominence of jewelry in Hellenistic black-glaze pottery. Detailed representations of contemporary jewelry, such as strap necklaces, are common motifs on drinking ware and containers; surviving examples of silver vessels show the same embellishments. Greek jewelry styles had become more elaborate in the second half of the fourth century; strap necklaces woven from gold wire and embellished with pendants are one of the new types. Jewelry was placed on the appropriate "body part" of the vase, with necklaces encircling the body and wreaths close to the rim. As the only decoration on these vessels, the vases themselves become, in a sense, embodied and adorned. I suggest that jewelry in this medium conveys important notions concerning gender and elite status that developed from its earlier representation in the Classical era.

Mapping Karian Queenship Across the Mediterranean (Fourth Century B.C.E.)

Patricia Eunji Kim, University of Pennsylvania

The Hekatomnid dynasts of Karia in southwest Asia Minor emerged as powerful, semiautonomous satraps with political authority both within and beyond their kingdom in the fourth century B.C.E. The unique dynamics and sociocultural formulations of dynastic identity have been the subject of historical discourse—from Hekatomnid practices of consanguineous marriage to the relative prominence of their dynastic women on the political stage. Indeed, architectural historians have discussed how Hekatomnid women were unique because of their striking presence in the sculptural program of the famous world wonder, the Maussolleion of Halikarnassos. Nevertheless, scholars have not yet fully analyzed the extant corpus of images, portraits, and monuments dedicated by and for Karian queens in relation to each other. The art historical evidence for Karian queenship is diverse in terms of the historical circumstances and cultural contexts of their display. Thus, a reexamination of the extant corpus offers fresh perspectives on the multiple dimensions of gendered power dynamics and the complex contours of Karian queenship throughout the Mediterranean.

This paper creates, analyzes, and presents different variations of maps that assemble the epigraphic, sculptural, textual, and archaeological data for Karian dynastic women. Modern-day geospatial and digital visualizations make the images and bodies of women leaders legible across the ancient eastern Mediterranean landscape. My synthetic analysis includes an examination of the various roles played by Karian royal women, demonstrating the complex articulations of their political identities. In this way, we might better understand the relationship between gender and power in Karia, and how those formulations may or may not have conflicted with the sociocultural dynamics of power around and beyond their kingdom. Mapping Karian queenship furthermore contributes to broader conversations regarding (re)presentations of women in different kinds of public spaces. These methods of analysis prompt reconsiderations of "local" and "supraregional" or "Asian" and "Greek" sculptural traditions, providing a critical opportunity to move beyond questions of style to focus instead on issues of gender in political art. By geolocating Karian female bodies, I ask how conceptions of gender and femaleness shaped interregional distinctions of dynastic identity through art. These gendered power dynamics both bolstered and subverted constructs of

heroic masculinity and masculinist regimes within autocratic societies. Moreover, the fourth-century Karian expressions of gender and power provided a vocabulary for dynastic visual culture in Asia Minor that resonated far outside the geographic and temporal confines of their rule.

SESSION 5I
Historical Views on Archaeology and Archaeologists

CHAIR: To be announced

Bringing Ancient Rome to America: Rodolfo Lanciani's Lecture Tour in the United States., 1887–1888
Susan M. Dixon, La Salle University

In academic year 1887–1888, Rodolfo Lanciani (1846–1929) traveled up and down the east coast of the United States, delivering all or portions of a 12-part lecture program on aspects of ancient Roman culture. His host institutions included the Lowell Institute, Harvard University, the University of Pennsylvania, Johns Hopkins University, and the Archaeological Institute of America. His tour was enthusiastically anticipated and well received.

Rodolfo Lanciani arrived in America having just concluded the work for his position as director of excavations in the Roman Forum. The activity there had been halted in 1886 for financial reasons, but not before Lanciani made the spectacular discovery of the Atrium Vestae and identification of the ancient Regia's form. As early as 1872, as an employee of the newly formed national government of Italy, Lanciani had been a site inspector for archaeological finds in most of Rome. From 1876, he also was secretary of Rome's municipal government commission in charge of discoveries of antiquities found on city property. Thus, he had deep knowledge of the latest information recovered about ancient Rome. This knowledge infused his lecture series. However, he shaped his lectures not around the latest finds but rather around ancient Roman cultural phenomena with which he believed the American audience would be most intrigued.

In this paper, I bring Lanciani's lecture tour to life and elaborate on its varied outcomes, some positive and some negative, for him and for those at the institutions he visited. These include his securing opportunities to publish in English-language venues, American museums such as the Boston Museum of Fine Arts, purchasing Roman objects on his counsel, and the AIA raising funds to promote classical studies. As a result of some of this activity, Lanciani was dismissed from his service to the national government.

An intangible consequence of Lanciani's tour was a spark of interest in ancient Roman culture at a time when studying classics in American schools and universities meant focusing on ancient Greece. Lanciani consciously crafted some of this result, as when he presented stories of strong ancient Roman women to appeal to those in the suffrage movement, or described the infrastructure of the city of ancient Rome to present models for American urban planners. In addition, there are indications that Lanciani's delivery had unanticipated results, as when nursing

and plumbing professionals noted the efficacy of ancient Roman healing and sanitation practices.

Heinrich Schliemann's Knossos: A Failed Proposition for the Excavation of a Lifetime

Aimee M. Genova, University of Chicago

Knossos is typically known through Arthur Evans' great "discovery" in 1900, but interest in Crete's material culture began well before Evans' excavation of this Bronze Age Minoan capital. It was the preliminary excavation of Minos Kalokairinos, a native Cretan, in 1878/9 that arguably inspired transnational curiosity for the site's antiquities. This initial excavation at Knossos-Kephala Hill came to a premature halt by order of the Cretan parliament; however, these hindrances did not preclude interest on the part of foreign excavators like Heinrich Schliemann, a German, who networked persistently for years after Kalokairinos' excavation ended.

Heinrich Schliemann (1822–1890) is primarily regarded for his excavations at Troy, Mycenae, and Tiryns during the late 19th century. Although his failed attempt to secure the site of Knossos is widely known, the extent to which Schliemann involved himself with Cretan archaeologists over the politics of this site is the lesser-known aspect to his archaeological narrative. In this paper, I present documents from Cretan archaeologist-physician Iosif Hatzidakis (1848–1936) to Heinrich Schliemann written between June 1886 and August 1889. These previously untranslated and unpublished documents from the American School of Classical Studies at Athens Gennadius Library Archives have never been effectively researched. Hatzidakis' letters are important because he helped to spearhead the island's archaeological movement during the late 19th century. His correspondence with Schliemann represents the local voice of Cretan archaeological groups when the island was moving toward a unified state with Greece, and thus these archival records reflect more broadly Crete's political, social, and scientific milieu during this transitional period.

Building on the previous considerations of Susan Heuck Allen's (1999) *Finding the Walls of Troy*, Curtis Runnels' (2002) *Archaeology of Heinrich Schliemann*, and Ernst Meyer's (1962) *Schliemann's Letters to Max Müller in Oxford*, my paper uses unpublished letters from Hatzidakis to emphasize the experience of indigenous Cretans. Oftentimes, the indigenous response to Schliemann's determination to secure Knossos has been overlooked in academia. I argue that Hatzidakis served as a liaison between the indigenous community and Heinrich Schliemann because the island's sovereignty became possible by producing strategies of resistance against Ottomans through the Cretans' collaboration with foreign institutions and local governances. Through a careful examination of Hatzidakis' letters to Schliemann for this project, I unveil information about the Cretan intelligentsia's stronghold on the island's cultural heritage and the actors who were allowed to partake in Cretan archaeological affairs.

Re-examining Inuit Cartography Through the Hands of the Artist
Hans Husayn Harmsen, Greenland National Museum and Archives

The skill and precision of Inuit cartography was widely known to early European and American explorers in the eastern Arctic. Among some of the most famous cartographic pieces that survive are the Ammassalik wooden maps from Greenland. These tactile charts were carved from driftwood an Inuit hunter, Kunit from Umivik, and given to Danish naval officer and explorer Gustav Frederik Holm during his famous *Umiaq* expedition (1884-1885). Kunit carved the maps out of driftwood to illustrate the eastern coastline and islands above 65° northern latitude. Holm purchased two maps from Kunit and commissioned one more of the peninsula between Sermiligak and Kangerdluarsikajik. Holm brought the wooden carvings back to Copenhagen where they were curated for the next 100 years at the Danish National Museum. In the 1980s, two of the three maps were repatriated back to Greenland. In recent years, years, the maps have captured the public imagination with frequent descriptions crediting them as navigational tools. But historically, we know that Holm never visited the areas depicted on the maps and ethnographically there is little evidence to suggest that hand-carved maps were used by the Inuit for navigation on the open sea. This paper explores the complicated history of these carvings while providing new insight into how modern Western perceptions of what a map is supposed to look like have obfuscated the intended function of the carvings. For the first time, two of the maps are now available as three-dimensional models as part of the Ersersaaneq project, a joint effort between students from the University of Greenland and the Greenland National Museum and Archives. In many ways the Ammassalik maps are symbolic of a new era of Greenlandic cultural history that is more self-reflexive and savvy in its understanding of its complicated past. Kunit's maps are now important symbols of Inuit-European entanglements that continue to inspire curiosity into Greenland's past, present, and future.

Out of the Ivory Tower and Into the Fire: Activism and Wartime Intelligence Gathering
Susan Heuck Allen, Brown University

What triggers activism in a time of isolationism, appeasement, and complacency? In this paper I examine the trajectory of an American classical scholar from a traditional career track to an ardent activist and advocate for Greece and refugees to an intelligence impresario in World War II. To do so, I mine and analyze contemporary press and unpublished correspondence, intelligence, and administrative files in archives at the American School of Classical Studies at Athens (ASCSA), Institute for Advanced Study, American Philosophical Society, and National Archives.

Benjamin Meritt (1899–1989) attended ASCSA at age 21. After two years in Greece and another 15 devoted to the study of ancient Athenian inscriptions, Meritt rose to the top of his profession early, elected a member of the Deutsches Archäologisches Institut (DAI) and, at 36, a founding member (with Einstein) of the Institute for Advanced Study in Princeton. But within two years Hitler's

annexation of Czechoslovakia's Sudetenland in November 1938 sparked in Meritt a desire to protest. While others advocated appeasement, Meritt, a veteran of World War I, resigned from the DAI and embraced a life of impassioned activism and engagement in contemporary politics along with his scholarly career.

Instead of looking on when the Nazis invaded France, Meritt fought back, mobilizing his vast academic network to bring refugee scholars to America with jobs. When the Italians attacked Greece in 1940, he marshaled AHEPA to barrage the State Department with protests against Italian aggression. He wrote not only his senator and congressman but also President Franklin Roosevelt and Secretary of State Cordell Hull, urging them all to stand behind Greece. With Lend Lease they did.

After the United States entered the war in 1941, the Office of Strategic Services recruited Meritt as their Greece expert in the Foreign Nationalities Branch (FNB), monitoring Greek-speaking refugees and immigrants in the United States to guide U.S. policy in the Balkans. Through his volunteer network of readers, Meritt gathered, digested, and supplied the State Department with intelligence on the political activities of Greek resident aliens and recent U.S. citizens and their perceptions of and involvement with movements in Greece itself. As chief of the Chancery Division of FNB, Meritt materially aided the early war effort. I demonstrate how Meritt helped encourage Washington's financial support and educated its highest echelons on Greek political concerns early in the war.

SESSION 5J
Archaeological Approaches to Fortifications

CHAIR: *Michael F. Lane*, University of Maryland, Baltimore County

New Research on a Greek Military Outpost in Eastern Sicily: The Fortress of Monte Turcisi (Catania)
Melanie Jonasch, Deutsches Archäologisches Institut

The history of Greek colonization in Sicily is filled with stories of conflict and conquest. Ancient written sources recount numerous colonial military operations against local inhabitants, fellow colonists, or global players from Athens and Carthage. Nevertheless, much remains unclear regarding the ways in which Greek colonies organized their armies, fought battles, and controlled their territory. Archaeological material, however, particularly military infrastructure and installations, allows a better understanding of the colonial logistics of territorial control and defense.

Current study of a nearly unexplored site with clear military function, situated on the edge of the alluvial plain of Catania some 30 km from the coastline, provides an example of the kind of information that can be gleaned from such material. On Monte Turcisi, a hill with a modest elevation of 303 m, lie the remains of a small fortress with no discernible connection to a larger settlement. The walls of the fortress and an additional outwork, some parts constructed of impressively large limestone ashlars, are still in very good condition. The German Archaeological

Institute, the Technical University of Berlin, the Superintendence of Catania, and the University of Catania carried out an intensive architectural survey of the fort in 2016.

In 2017 an excavation in selected points has allowed new insights concerning the period of utilization as well as the overall plan of the fortress and the building technique of individual structures. The fortress on Monte Turcisi is one of the rare purely military installations of the Greek colonies in Sicily. Its investigation will help us to understand the logistics of defense and the architectural implementation of colonial territorial control.

Abandonment and Assemblage: The Ptolemaic Fort at Bir Samut, Egypt
Jennifer Gates-Foster, University of North Carolina at Chapel Hill

The fortress at Bir Samut in Egypt's Eastern Desert presents a rare opportunity to observe the architecture and contents of a largely intact Hellenistic fortification abandoned in the latter decades of the third century B.C.E. Located on the route that connected the Nile Valley at Edfu with the desert mines and Red Sea coastal settlements of the Ptolemaic era, Bir Samut remains the largest known Ptolemaic fortification in Egypt. Excavated between 2012 and 2016 by the Mission Archéologique Française du Désert Oriental under the direction of Bérangère Redon, the fortress comprised more than 50 architecturally defined spaces, almost all of which included intact floors and deposits dating to the late third century B.C.E. In addition to these rooms and corridors, two expansive middens were excavated near the gates of the fort that included material spanning the entire period of the structure's use.

The remains recovered from these rooms were diverse and plentiful, yet the most common object type recovered from these deposits was ceramic vessels, many of which were intact and are being published by the author. This paper presents an overview of the assemblage of late third-century pottery recovered from the abandonment levels at Bir Samut and asks the larger and more important question of how such deposits should evaluated. The questions of date and activity areas are intuitive but are not the only vectors along which the analysis of such a group should be framed. Given the location and nature of the site, what processes might be in play as we consider the taphonomy of these artifact groups? How were these assemblages formed, and what factors influenced their recovered parameters? These are critical questions not only for our broader understanding of Bir Samut's history but also for broader methodological approaches to Hellenistic domestic and military contexts.

Fortress Macedon? A New Analysis of the Southern Macedonian Defense Network
Jacob Morton, University of Pennsylvania

This paper offers a new, comprehensive analysis of the Macedonian defensive network in the southern Olympus range between Macedon and Thessaly, based on autopsy of the archaeological remains and their surrounding landscape taken along with close readings of Livy, Polybius, and Plutarch.

This network comprised permanent forts, temporary field camps in predetermined locations, and fortified communication outposts. These individual components worked together to defend an area of roughly 1,600 km² along Macedon's southern border. This network's control of specific, key points in the landscape to prevent invasion from the south is consistent with Macedon's similar strategy on its other borders.

The permanent forts controlled the main route through the Vale of Tempe and along the southern Pierian coast. The temporary field camps controlled the two main passes through Perrhaebia and the central Pierian coastal bottlenecks. According to Livy, the camps in Perrhaebia held up to 12,000 men, who could be rapidly deployed when the need arose, while the camps in Pieria held upwards of 40,000 men.

While the large fortified sites such as Gonnoi have been extensively studied, the two smaller fortified communication outposts above the modern villages of Karya and Rapsani have been only cursorily examined and have not been properly incorporated into the larger defensive network. These similarly constructed outposts each had a 2m thick fortification wall built of local stone that faced only the direction of presumed attack, with traces of smaller buildings, presumably barracks, within.

While these outposts were only large enough to house a small garrison, each played the crucial roles of lookout and fire-signal station. Each outpost was strategically placed to have sightlines of anticipated enemy approaches, as well as of the larger components of the Macedonian fort system. Thus these two outposts served as the linchpins linking the various defensive structures and positions, and the communications between these components made the defensive network stronger than the sum of its individual parts.

This defensive network eventually failed during the Third Macedonian War when Perseus did not send large enough garrisons to hold the field camps at the key points at the passes through Perrhaebia but instead concentrated his huge army at the Elpeus. As a result, the Romans were able to get behind Perseus and compel him to retreat from his strongly entrenched position. Proper use of the already established defensive network might have allowed Perseus to avoid this fate.

SESSION 6A: Joint AIA/SCS Colloquium
Carthage and the Mediterranean

ORGANIZERS: *Michael J. Taylor*, University of California Berkeley, and *Laura E. Pfuntner*, Queens College Belfast

Colloquium Overview Statement

This panel examines Carthage's impact as an imperial state upon the broader Mediterranean world. Here, the Carthaginian state is framed as both a set of interlocking institutions (magistrates, assemblies, military forces, priesthoods, etc.) and an array of associated practices (taxation, conscription, diplomacy, public works, colonization, etc.).

Bringing together historians and archaeologists from North America and Europe, this panel seeks to integrate archaeological discoveries from the Punic World into the broader historical context of Carthaginian imperialism, and to situate Carthage's place in the broader history and material culture of the Mediterranean from 500-150 BC.

"Ground Truths: Reconsidering Carthaginian Domination" revisits the topic of Carthaginian imperialism, taking a detailed look at the Carthaginian colonial "footprint" on the ground in three places with different historical trajectories, Sardinia, Mallorca and Ibiza. The paper focuses particularly on rural contexts, the liminal sites of imperial interface and exploitation.

"Origin and development of Punic settlements in Sardinia until the age of Romanization" explores the archaeological evidence for the Carthaginian presence on Sardinia, focusing on the transition from Phoenician to Carthaginian phases of occupation, especially as seen at Monte Sirai. It argues for continuity rather than rupture between the Phoenician and Carthaginian phases in the sphere of burial practices and outlines characteristic features of Punic urbanism in Sardinia, pointing to parallels in urban planning and religious and domestic architecture between Monte Sirai and the cities of Punic Sicily and North Africa.

"Punic Sicily until the Roman conquest" addresses one of the most significant challenges to understanding the impact of Carthaginian imperialism in Sicily, namely, the complex and fragmentary evidence for Punic settlement on the island. It argues against attempting to single out "Punic" aspects of architecture and urban planning in favor of a "stratigraphic" approach to the island's Phoenician and Punic settlements that takes into account these sites' subsequent Roman occupation, thereby raising questions about the extent and significance of Roman Republican-era interventions in the Punic urban fabric.

"Carthaginian Manpower" examines Carthaginian military manpower recruitment during the First and Second Punic Wars. While Carthage largely maintained a mercenary force in the First War, the Barcids subsequently developed a new manpower strategy by conquering and directly administering conscription grounds. Nonetheless, Barcid conquests in Spain, Gaul and Italy followed traditional patterns of mercenary recruitment.

"The African Sufet" examines epigraphic evidence related to Carthage's chief magistrates, the sufets, arguing that the presence of local sufets in the epigraphic record in Sicily and Sardinia was the direct result of Carthaginian imperial expansion. The fact that the term remained in use well into the Roman period is a startling example of the afterlife of a Carthaginian state institution.

"From Zama to Apamea" explores how the Carthaginian state, disarmed but still economically potent, navigated its new position as a subordinate Roman ally. The paper sees Hannibal as the central figure in post-Zama politics, examining his consequential and controversial tenure as sufet, his exile, and Carthage's involvement in the Romano-Seleucid War, in which Hannibal served as a Seleucid admiral while Carthage itself fought as a Roman ally.

DISCUSSANT: *Josephine Quinn*, Oxford University

Ground Truths: Reconsidering Carthaginian Domination
Peter Van Dommelen, Brown University

Carthaginian imperialism' is the term that is widely used to describe the extent and impact of Carthaginian or more generally Punic influence and power; at the same time, however, it is also a notion that has rarely been scrutinized critically–with the notable exception of C.R. Whittaker's probing discussion back in 1978. For the most part, the use of imperial terminology and considerations of Carthaginian overseas power tend to be based on and framed by Diodorus Siculus' account of Carthaginian involvement in Sicily, in particular their political and military engagements with local Sicilians and Greek colonizers as captured by the notion of 'eparchia'. While the literary evidence has been pored over numerous times, there is surprisingly little hard evidence to elaborate on what Carthaginian 'hegemony' or imperialism might mean, let alone what it might have meant in real terms on the ground.

Thanks to a resurgence of interest in and an upsurge of archaeological fieldwork exploring Phoenician and Punic settlement and culture more generally, however, a wealth of evidence has literally been brought to light over the past two decades that enables a fresh and, especially, detailed look at what 'Carthaginian influence' might have looked like to people who found themselves at its receiving end – that is, in the overseas territories like Sardinia, where taxes were collected and resources exploited for the benefit of Carthage. Because there is broad agreement about the importance of rural produce and raw materials as motivating and underlying 'Carthaginian imperialism', I wish to draw attention to the rural contexts where tribute was both produced and exacted - in other words, where empire 'met' the colonized in the broadest sense of the terms. My argument is that these rural settings offer a privileged and perhaps unique perspective on what Carthaginian imperialism and hegemony meant in practice.

In this paper, I thus intend to examine the Carthaginian 'colonial footprint' on the ground in some detail by focusing on rural contexts. I will review a number of excavated Punic farms in Sardinia, and compare the composition and distribution of their remains to what has been recorded on two other islands in the West Mediterranean with close, if very different, Carthaginian ties, namely Ibiza and Mallorca. In doing so, I use the term 'colonial footprint' to gauge the intensity of Carthaginian impact and domination on the ground, as evident in the quantities and qualities of the material remains.

Origin and Development of Punic Settlements in Sardinia until the Age of Romanization
Chiara Fantauzzi, Georg-August-Universität Göttingen

This study presents new contributions about the Phoenician and Punic remains in Sardinia. The Phoenician and Punic phases were erased by restructuring measures in Roman times. In many cases no valuable evidence can be retrieved and documented anymore. With regard to the oldest phases of the Phoenician colonization, the most interesting data originates from Sant'Imbenia, which is located on the west coast near Alghero. Phoenician as well as indigenous materials have been

found in the layers of the settlement, which argues for a hybrid culture. Hence, this settlement provides the rare opportunity of analyzing the early steps of the colonization process. The archaeological data related to the first Phoenician phase is very scarce in Sardinia and limited to a few wall remains. There is no sign of urbanism nor any evidence of sacral, public or private buildings. The most consistent data for the Phoenician period originates from the funerary contexts of the seventh century B.C.E., mainly from Monte Sirai.

With regard to the Punic phase of Sardinia, many hypotheses regarding the Punic contexts should be reconsidered. Contrary to earlier views, the transition from the Phoenician to the Punic phase was not brought about by force. No clear breaks between the Phoenician and Carthaginian phase, which is dated by literary evidence from the late sixth century B.C.E. onwards, are visible within the surveyed settlements. Taking the data from the necropolises into consideration, particularly the newest insights from Monte Sirai, it is evident that there is indeed continuity and the burial custom of inhumation, which is seen as Carthaginian, can be traced back to the early sixth century B.C.E., while the Levantine custom of incomplete cremation was still in use in the fifth century B.C.E. In the course of the fifth century B.C.E. the ritual of inhumation in chamber tombs became predominant and remained stable in the fifth and fourth centuries B.C.E., in which inhumation was the most common burial form. The late Punic phase, which is dated to the fourth and third centuries B.C.E., is much better understood and indicated a deeply rooted presence of the Carthaginians in the settlements as well as in the surrounding territories. The stratigraphically dated fortifications, for example from Tharros, date from this period.

A key aspect of this study is the urban organization of Phoenician and Punic cities in Sardinia, which is subject to vivid discussions in the relevant literature as well. One of the most important settlements for analyzing Punic urbanism in Sardinia is Monte Sirai. The town planning shows private buildings aligned alongside the circulating, elongated fortification wall. They are also connected to the center by roads, where two long blocks of houses can be reconstructed. This urban organization is dated to the middle of the third century B.C.E. and wipes out the preceding Phoenician town plan. Contrary to common hypotheses, the completely irregular town plan of Monte Sirai, which is the only settlement where a pre-Roman urban organization can be indubitably determined, gives us reason to believe that the Punic settlements of Sardinia did not have orthogonal town plans. This becomes increasingly clear if comparisons to Mozia in Sicily or North African cities are considered. The case of Monte Sirai could be characteristic for Punic urbanism in Sardinia.

The few reconstructable temples, as well as the domestic architecture, show very homogeneous evidence, comparable to similar contexts in Carthage. Domestic building activity can be compared to well-documented, similar structures from the Punic Mediterranean, for example from Selinunte in Sicily. This is also the case for the tophet, which provides us with a clear link to North African cities in Punic times.

Punic Sicily until the Roman Conquest

Salvatore De Vincenzo, Freie Universität

The monumentalization of the Punic settlements of Sicily in the late period of the Roman Republic has greatly affected the preceding Phoenician and Punic levels. Almost all significant indications of the Phoenician and Punic phases of the island come from Motya and Selinus, which were not built over in the Roman era. These cities show an urban organization with buildings aligned to the settlement perimeter. Regarding religious architecture, with utmost probability, as has emerged from Motya, the so-called Pfeilertempel can be considered the prototype for the Phoenician temple on Sicily. The standard temple design of Punic Sicily, as particularly shown by Selinus, can be

recognized in the temple without peristasis of the oikos type, generally considered to be of Aegean origin. These temples, like other elements of the Punic settlements (such as houses, fortifications, or necropolises), evidence a significant degree of Hellenization particularly from the fourth century B.C.E. onwards, which in this phase can be considered as the result of a Mediterranean koine.

On a methodological level, studies of the Carthaginian territories and the analysis of the problems related to the Punic phase, as well as to the successive Roman phase, are generally carried out on two parallel tracks, one of which represents "Punic Archaeology," while the other "Classical Archaeology," with rare moments of attempted engagement. Every one of these fields of study has consequently given birth to an autonomous point of view regarding the development of the settlements in Carthaginian-controlled territories, distinguishing, as required, their Punic, Greek or Roman character, in accordance with the respective field. This tendency has been reinforced by the frequent lack of solid stratigraphic data.

This contribution tries to show the necessity of a "stratigraphic" approach to Western Sicily. For a long time, there has been a kind of interpretative fundamentalism among scholars, who are inclined to point out a settlement's "Punic" character based on manifestations of cults, architectural complexes or urbanistic structures in an apodictic way. However, a real reconstruction of these contexts in the Punic age cannot refrain from an initial analysis of the Roman phases, and of aspects connected with the process of Romanization in Western Sicily. One of the most important of these aspects is the urbanistic development of settlements. The archaeological evidence seems to suggest a radical reorganization of the urban structures of Western Sicilian cities and a contemporary monumentalization of their public areas in the late period of the Roman Republic. Some of the centers within the western sector of the island, like Palermo, Lilybaion and Soluntum, have been assumed to follow a Punic matrix, based solely on the calculation of the units of measurement that are supposed to underlie their urbanistic system. The study of buildings in sacred areas also shows a tendency towards biased interpretations that lead to a postulation of an oriental matrix in contexts which date from Roman times and are characterized as Punic in any sense. Thus, the existence of a Punic type of breadthwise-arranged temple in Sicily, the so-called "temple with three cellae," has long been argued. This supposed building type was discerned in Motya ("Cappiddazzu"), Selinus (Temples A and O), Monte Adranone, Monte Iato and Soluntum.

In the specific case of Western Sicily, the framework of the evidence concerning Phoenician and Punic frequentation should be significantly reconsidered in light of these analyses, thereby performing a sort of "unpunicization" with regard to many of its archaeological contexts. The interventions of Roman times have indeed greatly affected the preceding Punic levels of these settlements, permitting today only a guess as to their structures, except for Motya, which, since no consistent Roman phase exists, preserved its Punic character.

Carthaginian Manpower

Michael J. Taylor, University of California, Berkeley

This paper explores Carthaginian strategies for mobilizing military manpower during the First and Second Punic Wars. Ancient and modern commentators have usually viewed Roman manpower superiority as a decisive factor behind the Roman victory, yet Carthaginian manpower resources were substantial. Between 218-214 B.C.E., Carthage had more men under arms than Rome. Carthaginian manpower peaked at approximately 170,000 men in 215 B.C.E., a magnitude similar to the peak Roman mobilization of the war. Between 205-202 B.C.E., Carthage suffered enormous casualties--perhaps 100,000 dead or captured, a magnitude of loss similar to what Rome endured between 218-216 B.C.E. Like Rome, Carthage still continued to fight.

Most of these soldiers were either subject peoples, subaltern allies or mercenaries. Polybius emphasized Carthage's limited deployment of citizen contingents, and levels this fact as a criticism of the city's moral fiber. It is doubtful that Carthage ever deployed more than 10,000 citizen-soldiers between 480 and 202 B.C.E., and usually no more than a few thousand. This paper argues that the size of the Carthaginian citizen population (at least those capable of providing military manpower) was probably quite small. Indeed, there is reason to suspect that Carthage's population was similar to that of a large Classical Greek polis like Athens, Sparta, or Thebes, which were each capable of mobilizing 3,000-9,000 citizen troops.

While the Carthaginians eschewed the Roman solution of an expanded citizen body, they nonetheless developed strategies that allowed them to effectively maintain military deployments similar to Rome. During the First Punic War, Carthage had largely relied upon mercenary hires, especially Iberians, Gauls and Italians. The predominantly mercenary force failed to produce a victorious outcome. Furthermore, the mercenary mutiny at the end of the war nearly annihilated the city itself in the so-called "Truceless War" from 241-238 B.C.E.. Advancing a new imperial strategy, Hamilcar Barca set out in 236 B.C.E. to acquire a new territorial empire in Spain, which would be primarily exploited for conscripts. With the apogee of Carthaginian imperialism under Hannibal, territorial expansion mapped closely onto the previous patterns of mercenary recruitment in the First Punic War, as the Barcid empire at its peak controlled Spain, Gaul and much of Southern Italy.

The African Sufet

Nathan Pilkington, Columbia University

The sufet has a long history in Near Eastern politics as a designation for power. At its core, the term means nothing more than 'Judge'. At Carthage, the office appears in the epigraphic record in the mid-fifth century B.C.E. The title is used to designate the chief political officials, two of which were elected annually. From the fourth century B.C.E., a small number of cities in the western Mediterranean of Phoenician origin also record the office of sufet. The appearance of this office may indicate the establishment of Carthaginian imperial control over dependent cities, most notably in Sardinia, where one inscription is dated with reference to the local sufetes and the sufetes at Carthage.

Problematically, the title continued in use over the course of the next five centuries, as polities in North Africa, Sicily and Sardinia shifted from Carthaginian to Roman imperial power. Statistically, the vast majority of epigraphic records that include the title of sufet date to the Roman period. As a result, most scholars treat these records as artifacts of Roman imperialism. In this reconstruction, local populations are merely imitating a known title from the Carthaginian past as they progressively urbanized and developed civic institutions under the aegis of the Pax Romana. More importantly, these inscriptions cannot be used to understand the development of the earlier Carthaginian Empire.

By contrast, it is the contention of this presentation that the spread of the sufet is related to Carthaginian imperialism. I thus argue that these inscriptions represent vestigial remnants of Carthaginian power and its imperial political structure, finding a late expression due to the inculcation of the epigraphic habit in the Roman period. To better understand these records, this study will place the epigraphic record of North Africa in comparative context. First, I examine the epigraphic records of Sicily and Sardinia in the Carthaginian and Roman periods, particularly those areas previously subjected to Carthaginian imperialism. Next, I broaden the study to the Hellenistic Kingdoms, many of which inherited imperial forms from earlier empires and which were subsequently influenced by Roman power. I show that in the vast majority of cases the Romans chose to leave existing political institutions intact, particularly where it did not directly exert power through annexation (be it colonization, settlement, or promotion of local polities to city status).

Returning to North Africa, I apply the comparative evidence to argue that Carthaginian political institutions experienced an extended nachleben. In the vast majority of cases, therefore, we can use the epigraphic record of sufets as a proximate measure of Carthaginian imperial power at its height. Though we cannot ensure 100% accuracy in all cases, the vast majority of the polities that continued to express themselves in the language and political institutions of Carthage were Carthaginian in origin and testaments to the vast power it possessed before the First Punic War.

Carthage and Hannibal from Zama to Apamea
Eve MacDonald, Cardiff University

In the aftermath of the Battle of Zama (202 B.C.E.) the general Hannibal returned to his native city of Carthage after an absence of 36 years, at the age of 45. After so many years as an international political figure of heroic dimension, his domestic reception may actually have been more bruising than what he was used to abroad. At home, Hannibal was a deeply divisive figure both within the governing elite and, we can imagine, among the wider populace. Both Romans and Carthaginians were happy to lay all the blame for the disasters of the recent war squarely on Hannibal's shoulders. Cassius Dio wrote that 'Hannibal was accused by his own people of having refused to capture Rome when he was able to do so and of having appropriated the plunder from Italy' although Dio also notes that he was not 'convicted' of these charges (Cassius Dio 17, Zonaras 14-15, frag. 86). After Zama, however, the extant sources look away from Carthage and follow Rome's military focus eastwards towards the Antigonids and the Seleucids. Carthage after Zama was a peripheral power; although the Romans would always be wary of the city, what real influence it possessed is difficult to assess. When we do get the occasional light shone on events at Carthage during this period it is almost exclusively connected to the figure of Hannibal. Thus in this paper we will closely follow Hannibal's career in the post-Zama world to try to grasp a more nuanced understanding of the city of Carthage and its interstate relations in these final decades. This is one way to address key issues like Carthage's surprisingly quick recovery from the harsh peace imposed by the Romans. The journey that Hannibal made post Zama went from failed general, to ruling magistrate (sufet), to exile, and then dissident and warlord at the court of Antiochus III. This chapter of Hannibal's life can provide insight into the way Carthage was interacting within the wider Hellenistic Mediterranean. The city may have been banned from any military action outside of Africa but commercial activity and contact across the Mediterranean thrived and allowed Carthage to prosper. It would, of course, be this very prosperity that provoked a belligerent Rome to cause its downfall.

SESSION 6B
Monuments and Images for the Roman Emperors

CHAIR: *Francesco de Angelis*, Columbia University

Tensa or Triumphal Chariot? The Iconography of (Some) Empty Chariots on Roman Imperial Coins
Jacob A. Latham, University of Tennessee

From Augustus to Titus, Roman moneyers minted a series of coins with enigmatic images of empty chariots—typically quadrigae if the horse train was represented. Similar, though iconographically distinct, quadrigae appeared on denarii minted in 87 B.C.E. by Lucius Rubrius. Standard numismatic corpora, both print and digital, regularly describe these cars as triumphal quadrigae or, more

cautiously, slow (i.e., their horses appear to be walking), ornamented quadrigae. But who or what did these vehicles convey? And in what context? Were they, in fact, triumphal chariots or something else?

A careful and systematic comparison of these enigmatic vehicles with other quadrigae also qualified as triumphal—especially those that more clearly represent a triumph by the legend, a representation of the goddess Victory, or a "triumphal" chariot driver—yields some clear and distinct iconographical differences. Unlike other republic-era coin types with so-called "triumphal" quadrigae in which gods or *triumphatores* tower over chariots with low, swooping profiles, the Rubrius denarii depict vertically oriented, rectilinear chariots with inverted triangular tops, which stood well above their horse train. Similarly, imperial numismatic imagery distinguishes these enigmatic vehicles (tall, rectilinear, with a pediment and figural decoration) from other more clearly identifiable triumphal chariots—which are typically equal in height to or shorter than the horse train, curvilinear, and pediment-less with abstract ornament and often, but not always, a driver. In short, the iconography indicates different vehicles.

Moreover, other imperial imagery, a Julio-Claudian relief and a later Constantinian one, suggest that these tall, boxy, and pedimented cars were in fact *tensae*—chariots which drew *exuviae*, symbols or relics of the gods, in procession to circus. The iconography of these reliefs clearly resembles the coin types, but the extra space available to the sculptors of the reliefs allowed them to depict attendants next to the chariots—perhaps *pueri patrimi et matrimi* and/or *tensarii* who were known from textual evidence to accompany *tensae*. The evidence suggests, then, that these mysterious, empty chariots were in fact *tensae*, employed as a synecdoche for the *pompa circensis* and the circus games that followed.

In the end, perhaps the magnificence of the triumph has blinkered the assessment of these coins. Though the triumph was an immensely important and impressive ceremony, Rome witnessed a wide array of public spectacle and it should not surprise that such spectacles constituted part of the construction and representation of imperial authority.

The Archaeology of Apotheosis: Roman Coinage, Funerary Pyres, and Imperial Cult Sites

Steve Burges, Boston University

The aim of this paper is to explicate the critical role of Roman coinage depicting funerary pyres in the imperial cult of the second and third centuries C.E. Images of the ephemeral structures built for imperial cremations asserted dynastic stability and authority in moments of uncertainty and perpetuated the public ritual of divinization. In March of 44 B.C.E., mourners burned the body of Gaius Julius Caesar on an impromptu pyre in the Roman Forum. At the place of cremation, his *ustrinum*, city residents swiftly erected a column and altar at which they offered sacrifices and proclaimed oaths in the name of the deceased. Excavations at this same spot, where Octavian subsequently dedicated the temple of the divine Julius, have suggested that the irregular placement of its altar intentionally adhered to the initial cult site at the exact locus of Caesar's pyre. The funeral's topography continued to hold particular significance throughout the principate, since the

apotheosis or consecratio was thought to occur precisely at the moment of immolation. Bearing the inscription of consecratio, currency issued by the Roman mint portrayed different aspects of the mortuary rites and the consecration altars built to commemorate the location of a certain pyre's combustion. The ustrina monuments, which are partially extant, provided distinct sites for ritual, necessary for the establishment of new cults. The funerary pyres themselves eventually appeared in numismatic representations under Antoninus Pius. After struggling to secure senatorial recognition of Hadrian's posthumous divinity, he struck an unprecedented series of coins honoring his deceased wife, Faustina. The series exhibited a purposeful focus on the elaborate consecratio ceremonies, which were overseen directly by the imperial family and mediated by the crowds of soldiers and citizens who witnessed them. Her pyre, upon which she was reborn as a goddess, recalled her fictive fertility, which had ensured the regeneration of the regime, and emphasized the prestigious tradition of divine lineage. In the following century, currency was minted depicting the highly-embellished, multistory devices on which nearly every deified emperor and empress was cremated, and some types circulated to wide audiences across the empire. Rarer coins with the pyres of once-denounced rulers, such as Pertinax and Caracalla, also established fabricated filial ties through the symbol of the destructive ceremony of cremation. Reverses emblazoned with these temporary constructions ultimately commemorated the genesis of particular imperial devotion at the sites of ustrina and communicated familial piety essential to the propaganda of continuity.

Fashioning an Imperial Aetas: Nero's Portrait, the Depositio Barbae, and the Iuvenalia
Evan Jewell, Columbia University

Although Zanker's seminal work on Augustus has led to a burgeoning scholarship on the imperial image which combines a variety of media—literary, numismatic, sculptural, epigraphic and more—to arrive at a more holistic understanding of imperial messaging, this multidisciplinary approach has not yet been applied in depth to the study of age(ing) in Roman imperial history, nor to the portraiture of the Emperor Nero more specifically. Studies of Neronian portraiture have tended to focus on aspects other than his age, especially how Nero's image succumbed to *damnatio memoriae*. In this paper, I therefore adopt a multidisciplinary approach to the imperial image and its representation of age(ing) by examining a particular type in Nero's portrait series which appears to deliberately signal to viewers his physical maturity and, in so doing, allay political anxieties about the youthfulness of the princeps.

This portrait type (Hiesinger's coiffure type II, coin type IV), featuring an incipient beard, is dated to the period 59–64 C.E. on the basis of numismatic evidence. Tellingly, its inception coincides with Nero's Iuvenalia, celebrated in 59 C.E. to mark his *depositio barbae* at the temple of Jupiter, possibly associated with an *aedicula* to Iuventas (Tac. *Ann.* 14.15; Suet. *Nero* 11.1; Dio 62.19). As my reading will show, the literary accounts of this event deliberately frame the event in terms of an age-based spectacle. There were precedents, too, for using the cult of Iuventas for ideological ends: during the Second Punic War its prominence coincided with

manpower shortages and recruitment drives among the iuniores—a group which young men entered upon making a dedication to the goddess. Augustus, too, had established an imperial link to the cult of Iuventas (*CIL* 10.8375; Dio 54.19; RG 19). At the same time, epigraphic corpora from the early principate also attest to the presence of the *depositio barbae* as a coming-of-age rite practiced among the lower strata of Roman society, broadening the potential audience for Nero's image.

By bringing Nero's portrait type into a dialogue with the later literary sources and their stylization of the Iuvenalia as an age-based spectacle, together with the ideological history of Iuventas, and the broader attestation of the *depositio barbae* in epigraphic corpora, I will suggest that Nero's budding beard represents a carefully orchestrated instance of imperial self-fashioning that sought to mitigate the issue of Nero's youthfulness (Sen. *Clem.* 1.1) by deploying a physical and ritual sign of his maturing aetas.

Sabine Retrospective: Stylistic Archaism in Flavian Imperial Portraiture
Laura L. Garofalo, Loyola University Maryland

Since the monumental work of Daltrop, Housman, and Wegner, as well as more recent evaluations by Bergmann, Zanker, and Varner, Flavian imperial portraiture (69–96 CE) has been thought to draw primarily from Republican veristic styles of the first century B.C.E. The lined, sagging flesh, serious, frontal gaze, and slightly uneven proportions of Vespasian's Copenhagen portrait type have often been compared to images of Republican elder statesmen, unified by their appeal to a supposedly naturalistic, "warts and all" image and a presumed value-system of age, experience, and accordant gravitas. The Flavians' choice of a seemingly naturalistic, veristic-inspired style has usually been attributed to: Vespasian's advanced age at accession, marked stylistic contrast with Neronian portraiture, and general conservatism and pragmatism during the Flavian era. In this paper, I argue for an additional, overlooked component of the Flavian neo-veristic style: an appeal to the simplicity and traditionalism of the Flavians' Sabine heritage.

Several ancient sources comment on Vespasian's particularly simple and frugal habits, self-mocking sense of humor, and Sabine-inflected vowels (Tac. *Ann.* 3.55; Suet. *Vesp.* 12, 22). As Dench and Farney have noted, the Sabine identity was associated with particularly traditional, rustic virtues, and even a supposed origin in Spartan lineage promoted by Cato the Elder. In contrast with perceived Hellenistic excesses of the Neronian era, an appeal to Sabine heritage gave the Flavians another traditionalist aspect to add to their dynastic identity, suggesting trustworthy, stalwart origins in hilly Sabine territory, as well a long and storied link to early Rome.

As framed though Vespasian's two portrait types, as well as selected portraits of Titus and Domitian, I argue that the Flavian dynasts chose a portraiture style that looked back not only to Republican veristic styles but also to the rustic, Italian ideals of their Sabine heritage. In this way, Vespasian and his sons could appear both as dynasts looking to the ideals of the elite Republican past, as well as down-to-earth, Sabine men breaking from the Hellenizing excesses of the late Julio-Claudian dynasty. Accordingly, I argue that Flavian portraiture re-imagines stylistic verism in order to seek a new authenticity rooted in the virtues of the Sabine and Republican past.

New Observations on The Three Arches of Benevento
Gretel Rodríguez, University of Texas at Austin

A freestanding arch dedicated to the Emperor Trajan (r. 98–117 C.E.) greets visitors coming from the southeast to the city of Benevento, in central Italy. Generations of scholars have studied this monument, examining its elegant design, its complex program of reliefs glorifying the emperor, and the links between its construction and local civic concerns. Two other arches erected in the city, however, have received less attention. One, known as the Arco del Sacramento, and another of unknown name, stand at the southern edge of the ancient forum; both have traditionally been assigned to the Hadrianic period. This paper explores the three arches at Benevento as a group, to highlight possible chronological and thematic connections, as well as their situation within the urban matrix. Engaging in a close reading of the available archaeological evidence, I revise the dates scholars have proposed for some of the city's monuments, especially those of the three arches. I suggest that instead of an isolated case of imperial commemoration, the Arch of Trajan can be understood as a product of the intense period of construction experienced by the city of Benevento during the late first and early second centuries C.E. Ancient Beneventum was a crucial juncture in the road system that linked the Italian peninsula with the eastern provinces. In its mile-long layout, the city boasted large scale public monuments—forum, temples, baths, markets—as well as entertainment and commemorative structures. My goal is to widen the lens through which we see the Arch of Trajan, shifting the focus from its persuasive imagery, to the role it played in the urban development of the city.

In the Footsteps of Augustus: Hadrian and the Imperial Cult
Lillian B. Joyce, University of Alabama in Huntsville

Hadrian had a small bronze bust of Augustus among the Lares in his bedroom. A portrait of Augustus adorned his signet ring. Beyond keeping these images of Augustus close to his person, Hadrian sought to honor, emulate and even surpass the first emperor in a variety of his actions as princeps. In 121 C.E., Hadrian proclaimed a new Golden Age, which was celebrated on coins and with games and festivals. Around 123 C.E., Hadrian shortened his titular to Hadrianus Augustus. Hadrian also engaged in restorations of Augustan-period monuments in and out of Rome.

Promoting associations with Augustus evoked an era of power and peace. A significant element of these restorations was Hadrian's promotion of the imperial cult and the connection to a number of Augustan sites. Suetonius maintained that Augustus sanctioned his own worship as long as it was in conjunction with Roma, and permitted only provincials to worship. Augustus forbade such rites in Rome. Nonetheless, Augustus had more sanctuaries dedicated to his worship than any of his successors. However, Hadrian surpassed Augustus in the number of extant altars dedicated to him. Associations with imperial cult were part of Hadrian's consolidation and unification of the empire.

Hadrian erected, revived, or enhanced at least twelve temples and shrines connected to the imperial cult. To this I suggest adding the Temple of Venus and

Roma. Its Greek-style plan and choice of goddesses connected it to the legacy of Augustus. However, the selection of Greek and Roman elements was nuanced. The plan shared characteristics with Greek-style temples in the east and west such as the Olympeion in Athens and the Temple of Augustus in Tarraco, both of which Hadrian restored and were connected to the imperial cult. The porticoes of the new temple also shared much with the restored Pantheon, which also celebrated Augustus. The goddesses Venus and Roma functioned effectively as surrogates for the imperial cult, with Venus as the divine ancestress of Augustus' Julian clan and Roma as the traditional cult consort of Augustus in imperial cult. Their pairing on the east face of the Ara Pacis, also restored by Hadrian, further reinforced this connection. In its use of Augustan models with associations to imperial cult and the power of the living emperor, the temple revealed a sophisticated plan on the part of Hadrian to showcase his power through a connection to the Augustan legacy and concepts of eternal empire.

Sabina's "Plotina" Portrait Type

Fae Amiro, McMaster University

The sequence and dating of the Empress Sabina's portrait types has been debated for the past ninety years. There are five portrait types used on her coinage from 128–138 C.E. To establish a true chronology, I conducted a die study of the aurei which display her portrait.

On the coins analyzed, the portrait type often called the "Plotina" type was by far the most common, being represented on 52 percent of obverse dies. This contrasts with the evidence from portraits in the round, where there are only three examples of this type. Mattingly, Strack, Carandini, and Nicolai believe that this portrait type was meant to form a visual connection between Sabina and her predecessor, Plotina. However, there are a number of problems with this assessment. Sabina's first coin portrait type already exhibited dynastic continuity through its similarity with the images of Sabina's mother, Matidia. Also, it is unclear how potent this message would have been eight years after Plotina's death. Most importantly, comparison between the two shows that their similarities have been exaggerated and that they bear almost no resemblance in their details.

Die analysis can address the impetus for the creation of the type by properly contextualizing it. There are 23 obverse dies used. Their sequencing places the start of the "Plotina" type around the third year of minting, ca. 131 C.E., which corresponds with evidence from Egypt where the type debuts in the same year. At this time, Hadrian and Sabina were abroad, raising important questions about the mechanisms of portrait type creation during Hadrian's travels. Upon the introduction of the new hairstyle, the reverse types of the aurei change from Vesta to Concordia Augusta. Halfway through the use of the "Plotina" type, there is a change in obverse inscription with no alteration to the portrait or reverse types. The use of the "Plotina" portrait type extends to nearly the end of Sabina's lifetime, if not entirely to the end.

I argue that this portrait type was not meant to represent continuity with the previous dynasty, but rather is a departure from it, as seen in the change from the old "Matidia" portrait type to one which is stylistically distinct from those of the

previous dynasty. With its context properly established, I explore the motivations behind the new, distinctly Hadrianic style of the "Plotina" type.

A Tetrarchic Cult Complex with Painted Marble Reliefs from Ancient Nicomedia: A Preliminary Report
Tuna Şare Ağtürk, Çanakkale Onsekiz Mart University

Ancient Nicomedia, which emerged as the most important capital of the eastern Roman Empire during the Tetrarchy, now lies below the modern industrial city of İzmit in Turkey. This presentation includes the preliminary results of our TÜBİTAK granted archaeological project (115K242) on a new series of painted architectural reliefs and statues from a monumental terraced cult complex found in Çukurbağ District, at the heart of modern İzmit. These finds are very important not only because they provide us the most extensive archaeological evidence ever found in Nicomedia, but also as the only surviving examples of Roman state reliefs with preserved extensive ancient polychromy. Rescue excavations conducted by Kocaeli Archaeology Museum in 2001 and 2009 revealed more than thirty sculpted relief panels (average height 1.0 m, width 1.5 m) along with numerous sculpted fragments from reliefs and freestanding statues. Our archaeological project, started in 2015, scientifically analyzes these unique reliefs—for the first time together with other sculptural and architectural finds—in order to digitally reconstruct the complex to which they once belonged.

The reliefs depict: Roman military expeditions, imperial rulers and soldiers in battle with barbarians, imperial processions, religious ceremonies, as well as mythological narratives (possibly foundation myths), agonistic games (chariot races, boxers) and theatrical performances. The preliminary analysis has shown that the majority of them date from the time of Diocletian and Maximian's diarchy (286–293 C.E.) when Nicomedia became the administrative capital of the Eastern Roman Empire (286–324 C.E.). Thus, the reliefs illuminate multiple aspects of little known art of the period, including the color-coded costumes, changing styles, and motifs of the new imperial administration. The architectural complex, once adorned with the reliefs and statues, appears to have collapsed and become partially buried during the devastating earthquake of 358, thereby fortuitously preserving the extensive coloration on the reliefs.

Art Appropriation on the Coins of Fausta Flavia Maxima
Rosa Maria Motta, Christopher Newport University

The Arch of Constantine, built in Rome in 312 C.E. , has been studied within the modern concept of art appropriation for its use of spolia, i.e., reliefs from older monuments. The reused spolia, originally designed to celebrate the victories and virtues of Trajan, Hadrian, and Marcus Aurelius, have prompted scholars, starting with Hans Peter L'Orange (Der Spätantike Bildschmuck des Konstantinsbogens, 1939) to interpret the appropriation as Constantine's conscious attempt in claiming the legitimacy of his predecessors. By replacing their features with his own on those spolia, Constantine literally integrates himself into their world, appropriating the celebration of their deeds as his own.

While Constantine's Arch has been analyzed within the ideological context of art appropriation, his numismatic repertoire has never been examined within that same setting. This paper explores whether that same notion can be extended to the portraits of Fausta, Constantine's wife. Specifically, the study analyzes Fausta's spes-type coins minted in 326 C.E. (RIC VII: 178), which appear to reproduce the fecunditas-type coins of Faustina II, Marcus Aurelius' wife (RIC III: 675). When comparing the obverses of the two coins, one can clearly observe the similarities between the two honorific portraits. Fausta's clothes, her demeanor, and especially her hair, waved and coiled in a small bun at the lower back of the head, are the same as Faustina's. Additionally, Fausta's reverse iconography, depicting the empress holding her two infant children, echoes Faustina's coin reverse, where Fecunditas is depicted in the midst of four small children. Faustina's legend, FECVND(ITATI) AVGVSTAE points to the empress' fertility, whereas Fausta's legend, SPES REI PUBLICAE acknowledges that hope has manifested itself in the princess' ability to become a mother.

Roman imperial coin types drew from a highly developed visual language of imperial ideology and have been widely studied within that context. The study of Fausta's coins adds another layer of analysis, by presenting those coins within Constantine's deliberate attempt at evoking Rome's imperial past. The replication of Faustina's physiognomical style and coin type attempts to transfer Faustina's dignity, nobility, and worthiness to Fausta, the new AUGUSTA. Moreover, by circulating to far-flung places, Fausta's coins become an effective tool for spreading Constantine's promise of prosperity throughout the newly unified Roman empire. The young Faustina-look-alike empress and her children inspire confidence that the prosperity of the past will continue in the future.

SESSION 6C
Ancient Coins and Other Valuable Objects

CHAIR: To be announced

A Recent Find of Roman Republican Coinage
Lora L. Holland, University of North Carolina at Asheville

Excavations in 2015 at the site of Cetamura del Chianti (Italy) yielded a cache of silver coinage of the Roman Republic in a secure archaeological context. The coins were contained in a small ceramic vessel, whose broken spout was packed with earth (six of the coins and the vessel are now published in an exhibition catalogue at the Florence Archaeological Museum, N. de Grummond, ed. 2017). The vessel was found turned upside down with stones packed around it and nestled against a wall of bedrock. The deliberate nature of its burial suggests that it was ritually deposited into the ground. Completion of excavation in the area shows it to be an isolated find.

The coins, mostly denarii but with some quinarii, range in date from 137–32/29 B.C.E. Deposits of Roman Republican coinage are rare in northern Etruria, and this is the earliest known from the Chianti region. This paper presents an overview of

the entire cache, but focuses on the Late Republic. The Cetamura find shares with numerous other deposits in Italy a terminus post quem of ca. 32/29 B.C.E., that is, just before Octavian consolidated his power and was granted the designation "Augustus."

A significant group of the coins that date to the end of the Republic pertain to Antony and Cleopatra, Julian cult, and coinage of Octavian that signaled the coming regime change. This group, the latest coins in the find, leads us to hypothesize that a veteran of Octavian received, perhaps unusually, both a monetary payment and an individual land grant that included the artisanal/industrial/sacred area on the site itself and vineyards in the area of Cetamura. Roman baths, probably connected with a villa, appear on the site in two phases: the first early Augustan and the second during the first half of the first century C.E. The discovery of Julio-Claudian coins and other artifacts that evoke the early imperial cult, excavated from a deep well on the site (published in N. de Grummond, ed. 2017), suggests that those who continued living at Cetamura during the reign of Augustus and his successors remained loyal.

Sporadic coin finds at Cetamura over many decades highlight the unique nature of the 2015 find and its importance for understanding what was happening at the site in the aftermath of the Roman civil war that brought Octavian to power in the last decades of the first century B.C.E. Some evidence of conflict (lead bullets) at the site may suggest that this area was not spared from the general unrest of the time.

Why did Roman Moneyers Indicate their Ancestries on their Coinages?
John D. Morgan, University of Delaware

From the early second century B.C.E. until Augustus' principate, a Roman moneyer usually put on his coinage his abbreviated praenomen and either his nomen gentilicium or his cognomen, or both: e.g., C·MAIANI(us), P·SVLA (*RRC* 205), M·ATILI(us) SARAN(us) (*RRC* 214). In over 60 cases, they also indicated their father's praenomen (e.g., C·IVNI·C·F(ilius) (*RRC* 210)), and in 9 cases also their paternal grandfather's praenomen (e.g., TI·CLAVD·TI·F(ilius)·AP·N(epos) (*RRC* 383)).

The late Ernst Badian ("The House of the Servilii Gemini: A Study in the Misuse of Occam's Razor." *PBSR* (1984, 52: 49-71.) hypothesized that Roman moneyers placed on their coinages such indications of their ancestries to distinguish themselves from homonymous cousins with different ancestries. Badian used this hypothesis to reconstruct a stemma of the Servilii Gemini with many more otherwise unattested members than in the reconstructions by previous scholars, such as Friedrich Münzer in his articles on the Servilii in Pauly-Wissowa's *Realencyclopädie*.

In this talk I argue that the primary reason why Roman moneyers placed indications of their ancestries on their coinages was not to distinguish themselves from homonymous cousins, but rather to emphasize that they were *nobiles*, whose fathers and/or paternal grandfathers had held important elective offices, such as censor, consul, praetor, or aedile.

The clearest evidence is provided by the coinage issued by one of the triumvirs in 38 B.C.E. Clearly the reason why Marcus Antonius included his ancestry

"M·F·M·N" on his coinage (*RRC* 533), stamped M·ANTONIVS·M·F·M·N·AVGV R·IMP·TERT on the obverse and III·VIR·R·P·C·COS·DESIG·ITER·ET·TERT on the reverse, was not to distinguish himself from some nonexistent homonymous cousin. Rather, I contend, he included "M·F·M·N" to emphasize his descent from his homonymous grandfather, who had been a consul in 99 B.C.E. and a censor in 97 B.C.E., and to contrast his resulting nobilitas with the relative ignobilitas (Cicero, *Philippics* 3.15) of his rival Octavianus, none of whose patrilineal ancestors had held either of these offices, and whose disputable claim to nobilitas rested on his testamentary adoption by Julius Caesar, which he proclaimed by calling himself IMP·CAESAR·DIVI·IVLI·F on the coinage he issued this very same year (*RRC* 534/3).

In conclusion, I will present several other examples of moneyers who referred to their illustrious ancestors on their coinages, such as M'·AQVIL(lius) M'·F·M'·N (*RRC* 401), son and grandson of the homonymous consuls of 101 and 129 B.C.E., C·ANNIVS·T·F·T·N·PRO·COS (*RRC* 366), son and grandson of consuls in 128 and 153 B.C.E., and CN·EGNATIVS·CN·F CN·N MAXSVMVS (*RRC* 391), whose grandfather constructed the Via Egnatia when he governed the new province of Macedonia around 145 B.C.E.

Augustus' Role as a Founder and Roman "Provincial" Coinage
Victoria Gyori, King's College London

This paper examines the evolution of Roman "provincial" coinage in relation to the significance of Augustus' role as a founder. Augustus made clear his desire to be a new Romulus. In the same way that Romulus was by tradition known as the founder of Rome, Augustus wanted to establish himself as a second founder of Rome and as a founder and re-founder of numerous cities in the Roman provinces. The far-reaching evidence of "provincial" coinage exemplifies the pre-eminence of Augustus' position as a universal founder. The increase in the number of cities that began minting coins—and/or the chosen iconography and legends employed during the reign of Augustus—suggests that the expansion of "provincial" coin- age in the late first century B.C.E. and the early first century C.E. is inherently connected to Augustus' role as a founder, and that a numismatic typological cat- egory of "foundation" types was developed which later served as a template for post-Augustan "foundation" issues.

That Augustus adopted the role of a universal founder is particularly evident on the "provincial" coinage issued in the eastern and in the western provinces during his lifetime. In order to investigate this development, I ask the following three questions: Did a provincial city begin its minting of coins to first commemorate its foundation, re-foundation, or reorganization?; Did a provincial city issue coins to specifically commemorate its foundation, re-foundation, or reorganization?; What iconographic elements and legends were employed on the coins issued in relation to a foundation, re-foundation, or reorganization?

I show that the increase in Roman "provincial" coinage is directly proportion- al to Augustus' role as a founder. For example, the introduction of the obverse portrait of Augustus into the numismatic typology of any given eastern or west- ern provincial city is usually related to Augustus' foundation, re-foundation, or

reorganization of that city. These obverses are more often than not accompanied by a lituus. The use of the lituus lies in the augur's role as a founder. A "ploughing" reverse type (e.g., priest ploughing with oxen) represents the foundation of a city. A "military standard" reverse type (e.g., three battle standards) represents a veteran settlement. This paper not only analyses the introduction of "foundation" types into Augustan "provincial" coinage, but also the relationship between these numismatic images and the provincial cities which issued them. Thus, a numismatic investigation can contribute widely to our understanding of Augustus' empire-wide role as a founder.

"Now you see me, now you don't"—An Assessment of the Figural Representation of Foreign Peoples and Places on Roman Imperial Coins (14-68 C.E.)
Ellen M.H. MacDougall, University of St. Andrews

This paper focuses on the role played by figural representations of foreign peoples and places on Roman imperial coinage between the death of Augustus in 14 C.E. and the outbreak of civil war and the death of Nero in 68 C.E. This is a period that has not drawn any consideration in previous scholarship on the subject. This paper's closer examination of the period firstly reveals that there was in fact a sudden and dramatic decline in the appearance of figural representations of foreign peoples and places on Roman imperial coinage, with only three different extant image types featured at intermittent intervals across this period. This stands in stark contrast both with the previous varied and regular use of this imagery on late Republican and Augustan imperial coinage and with its subsequent widespread use on civil war coinage and Flavian imperial coinage. The identification of a significant decline in the use of these image types between the reign of Tiberius and the death of Nero demonstrates that there were in fact considerable peaks and troughs in the use of these image types on coinage of this period that have previously gone unnoticed. Secondly, this paper addresses the question of why there was a relative hiatus in the use of these images on Roman imperial coinage in this period. The decline in their use is explained in part by a particular focus on imperial coinage of past and present members of the imperial family and their virtues. This extends to imperial coinage that commemorated interactions with foreign peoples and places. In these cases, the emphasis is primarily upon the imperial individual involved, rather than upon portraying a figure representative of the foreign people or place. The more thorough investigation of this period presented in this paper provides a more nuanced picture of how foreign peoples and places featured on early imperial coinage.

Terracoinage: Clay Coin Copies across the Ancient World
Talia Prussin, University of California, Berkeley

This study focuses on the neglected phenomenon of bifaced clay objects bearing coin types. These artifacts, which I term clay monetiform objects, are found across the Mediterranean world from Emporion to Baktria. They span a vast period of time from the sixth century B.C.E. to the second century C.E. While past studies

of clay monetiform objects have covered the Greek and Italian material, no recent study has discussed the clay monetiform objects from the excavations at Seleucia on the Tigris. Considering these finds alongside those excavated at Metapontum produces patterns that are too subtle to discern in either set alone. A clay monetiform object from Seleucia can be die-linked to an extant silver coin. This connection confirms that clay monetiform objects were copies made from molds of real coins, rather than models made by hand in imitation of coin series. Other features of clay monetiform objects, such as reproductions of off-flan coins or ridges reflecting the original striking of the metal coin, confirm that these objects are copies.

This fact eliminates the hypotheses that center around the clay coin copies being hobby objects made by artisans. The indistinct types on the majority of the Seleucid material demonstrate that they were not a study collection for, e.g., seal makers as has been proposed. There has never been any real evidence for the ritual/sacred hypothesis, since only one clay coin copy was found in a sacred context. The only clay monetiform objects with archaeological contexts came out of the potters' quarter at Metapontum and a neighborhood block in Seleucia on the Tigris. I focus instead on possible economic uses for these objects.

There is little historical evidence for emergency or fiduciary clay coinages in the regions where coin copies have been found, so these objects were probably tokens. Drawing on Assyrian comparanda, I suggest that coin copies were used in accounting to represent the size and types of coins paid or owed. This would allow someone familiar with ancient coinage to identify the series and its denomination by sight. Finds of coin copies cluster in polyglot regions like classical southern Italy and hellenistic Mesopotamia. Tradesmen may not have been literate in the language of record, but coin copies would allow them to perform basic accounting tasks regardless. Clay coin copies offer valuable insight into how trade and literacy interacted in polyglot areas of the ancient world.

Currency, Jewel, Ritual Object: Multifarious Roles of Imitation Roman Coins in India.

Suresh Sethuraman, Indian National Trust for Art and Cultural Heritage, Chennai, India

The ancient kingdoms of Southern India traded with the Roman Republic and later, with the Roman Empire and its successor empires. These contacts started around 200 B.C.E. and continued up to about the fifth century C.E. Rome imported spices, textiles, ivory, beryl, and peacocks from India. In return, India procured gold, silver, copper, antimony, wine, and coral from Rome. In recent decades, there have been several studies on the history of this commerce.

Most of the metal imports from Rome to India were in the form of coins. Thus, Roman coins have been found in many parts of South India. In addition, South India has also revealed ancient copies or imitations of these Roman coins. These imitations are in gold, silver, copper, and lead. Some of them portray incorrect or garbled legends. Based on museum and field researches in India and Europe, the present paper, for the first time, analyzes the multiple "roles" or "uses" of these imitation Roman coins in India.

In terms of weight, metallic composition, and style, the imitation Roman coins found in India are totally different from those reported from other places, particularly Europe. These imitation coins found in India were produced to offset the deficit in the supply of the genuine Roman coins in specific regions of India. Many of these copies equal, not only in weight but also in metallic-purity, the real Roman coins. Thus, it appears that these imitations were produced with legal sanction and without any objective of criminal fraudulence.

The following factors collectively reveal that the imitation Roman coins in India enjoyed the same status and were used for the same purposes as the genuine Roman coins. These purposes include local currency, jewelry, and ritualistic offerings at Buddhist and Hindu shrines:

1. Similarities, in the coin-types and the chronology, between the genuine and the imitation Roman coins found in India.
2. Presence of slash-marks and countermarks on both the real and the imitation Roman coins.
3. Finds of imitation Roman coins in association with genuine Roman coins in hoards and in archaeologically stratified contexts.
4. Finds of early Indian coins in association with genuine and imitation Roman coins in hoards, archaeological digs and Buddhist reliquaries.
5. High incidence of worn genuine and imitation Roman coins in the various finds, especially those from archaeological excavations.
6. Specific references to real and imitation Roman coins in Indian epigraphs and literature.

Glyptic Finds in Context: Engraved Gems from the "Pompeii Archaeological Research Project, Porta Stabia"

Laure Marest-Caffey, Museum of Fine Arts, Boston

In the course of the eight seasons of excavations (2005–2012) undertaken by the "Pompeii Archaeological Research Project, Porta Stabia" (University of Cincinnati), 15 engraved gems were excavated and 3 more, discovered in the 19th century, have been associated with insulae VIII.7 and I.1 through archival research. The collection forms a rather homogeneous group of intaglios in terms of material and quality with the exception of two remarkable finds of unusual material and origin. As a whole, it offers a rare opportunity to study the glyptic finds in their archaeological context and against the socio-economic background of an urban center such as Pompeii.

One can hardly overstate the importance of such discoveries for the field of Roman glyptic. Although tens of thousand of gems are known today, the great majority of them have no archaeological provenience, and few and far between are the studies that emphasize such records. Consequently, much work remains to be done to place on a more solid footing the typology and stylistic dating elaborated progressively in the 19th and 20th centuries.

By using close examination and context-conscious analysis, this paper addresses questions of typology, chronology, and the problematic use of "period style" to date engraved gems. It discusses the different kinds of information that can be teased out of finds discovered in primary versus secondary/tertiary contexts.

While the former give us access to the "biography" of artifacts, the latter cut across the anecdotic to get at the cultural and socio-economic value of this class of material.

Ivory Carving at the End of Antiquity: From Grado to al-Humayma
Anthony Cutler, Pennsylvania State University

Peter Brown once remarked that "Late Antiquity is later than you think." His point is borne out by two clusters of ivories: the first, traditionally associated with the so-called Grado throne, two of which were radiocarbon-dated in 2003 to a range between 630 and 820 B.C.E.; the second, a large group of shards found at al-Humayma in Jordan, some of them more recently "consolidated" as veneer panels and assigned to the first half of the 8th century. The importance of these finds transcends their (still problematical) chronological significance. Quite different in size (in all cases the ivories in Jordan are less than two-thirds the area and one-third the thickness of the Grado plaques), iconography (military and court officials in contrast to saints, angels, and citizens), and the physical disposition of the figures, the two groups have yet been related and declared to be "remarkably similar in use." Wrong-headed as this judgment may be, the survival of the two clusters provides significant data: first, methodologically, for the utility of clusters in determining methods of ivory working, and, secondly, for the availability of, and demand for, ivory in the eastern Mediterranean at the end of antiquity.

SESSION 6D
Natural Resources Management: Archaeological Perspectives

CHAIR: To be announced

Resource Competition and Settlement Distribution in Bronze Age Greece
Christopher S. Jazwa, University of Nevada, Reno, and *Kyle A. Jazwa*, Duke University

In this paper, we examine patterns of settlement expansion and contraction in mainland Greece during the Bronze Age (ca. 3000–1050 B.C.E.) using the Ideal Free (IFD) and Ideal Despotic Distribution (IDD) models. We ranked potential settlement locations on the landscape using environmental and cultural variables, including a proxy for fresh water availability, net primary productivity, distance to a viable harbor, and distance to tholos tombs and sites of cultural or political importance. The models predict that the highest ranked habitats will be settled first with an expansion to progressively lower ranked habitats as population density increases. In the IFD, people are free to settle anywhere; in the IDD, people are excluded from some locations. The IFD and IDD have been applied successfully at a variety of geographic scales to both hunter-gatherers and more complex societies, including in California, Alaska, Belize, the Pacific Islands, Spain, and Greece. This paper is an expansion of our previous study in which these models were

applied to Bronze Age Messenia in the western Peloponnese and an application to a broader scale in the prehistoric Aegean.

In our previous study, we demonstrated that despite the relatively complex social structure in Mycenaean Messenia, settlement was consistent with the predictions of an IFD rather than the expected IDD. We hypothesized that because of the political primacy of the Palace of Nestor, leaders did not interfere with an IFD distribution throughout the region to allow maximization of agricultural returns and tribute. In this study, we compare our previous results to other regions of mainland Greece where conflict between adjacent political centers results in resource competition and exclusion, which is consistent with an IDD model. This includes the Argolid, Boeotia, Corinthia, and Laconia. This will allow us to contextualize the results of Messenia and determine if the IFD distribution there is anomalous. For instance, the application of the model to EH Lerna, a site demonstrating greater centralization than any settlement in Messenia during the Corridor House period, yields productive results about socio-political administration in the region. Additionally, our application to other palatial regions demonstrates variability in strategies in resource acquisition and exclusion from palatial institutions. This study has implications for understanding the development of complex social organization in the context of different environmental conditions within similar cultural systems.

The Forest Wardens of Thessaly: Evidence for the State Administration of Communal Natural Resources

Morgan T. Condell, University of Pennsylvania

This paper discusses the existence of a state-administered system of forest management in Thessaly, overseen by a designated magistrate who would have been tasked with the maintenance of communal forestland, ensuring that it could be economically exploited by the citizens without endangering the longevity of its valuable resources.

A formal system of forest administration is poorly attested in the Greek world apart from the royally controlled forests of Macedon. Such a system is suggested by a passage in Aristotle's *Politics* (1321b 30), where he includes the hyloroi (forest wardens) among his essential magistrates. Importantly, two inscriptions from Thessaly attest to the actual existence of officials with similar titles—the hyloreontos of Thetonium (*IG* IX² 257, fifth century B.C.E.), and the twelve hyloureisantes of Pherae (*SEG* 34:564, second century B.C.E.).

While Thessaly is primarily thought of as a large agricultural plain, its landscape—and consequently its land use—is more varied, as its borders extended into the foothills of the Pindus, Olympus, Pelion, and Othrys mountain ranges. These lands would have been considered marginal for the purposes of cultivation, but still had great economic potential.

Sacred laws from Paros (*LSCG* 111), Kos (*LSCG* 150 A&B), Crete (*LSCG* 148) and Attica (*IG* II² 1362) point out the kinds of forest products that were commonly exploited in this period. Furthermore, ethnographic studies conducted in Greece during the 20th century in the Pindus and the Peloponnese demonstrate how communities depended on marginal, wooded areas for essential resources such as firewood and fodder. Communal forestland had the potential to be a valuable

renewable resource, however unchecked exploitation would lead to its destruction within a short period. By establishing the office of forest warden, the state ensured that oversight was applied to these common lands, guaranteeing the perpetuation of their resources for its citizens.

The inscriptions from Thetonium and Pherae thus elucidate the nature of the Thessalian landscape in antiquity, pointing to a system of communal land use likely unrelated to the intensive cultivation of cereals usually associated with Thessaly, and highlighting the presence of other natural resources that were valuable enough to warrant management by the state apparatus.

Stepwells of Gujarat
Sharmishtha Agarwal, Neeraj Manchanda Architects, New Delhi, India

Stepwells are examples of the subterranean edifices, a type of storage and irrigation tanks, that were developed in north and western India, essentially to cater to the seasonal fluctuations in water availability. Born of necessity in a capricious climate zone, bone-dry for much of the year, followed by torrential monsoon rains for many weeks, they helped sustain life and enabled crops to flourish.

Over the centuries, stepwell construction evolved so that by the 11th century they were astoundingly complex feats of engineering, architecture, and art. By the 19th-century, several thousand stepwells in varying degrees of grandeur also proliferated along crucial, remote trade routes where travelers and pilgrims could park their animals and take shelter in covered arcades. They were the ultimate public monuments, available to both genders, every religion, seemingly anyone at all but for the lowest-caste Hindu. The paper studies in detail two of India's best-known stepwells with most elaborate backdrop for worship, the Rani ki vav (Queen's Well) in Patan and Adalaj, named Ruda vav, in Gandhinagar.

Considering that in India, fetching water was (and is still) assigned to women, women played a major role in the construction and patronage of many of these stepwells. Said to be celebrating the feminine principle, these wells acted as indicators of women's changing social and economic status and challenge the stereotypes of the passivity of women. The stepwells provided a reprieve and gathering down in the village stepwell (commonly called vav or baoli) was surely an important social activity. Inherently considered a female space, the paper also aims to analyze the relationship between women, water, architecture, and religion.

At the time of India's burgeoning water crisis, the relevance of this category of architecture can be re-evaluated for its ability to collect and store water, with its use gradually slipping off history's grid. But for most remaining structures, the prevailing condition is simply deplorable due to a host of reasons. The growing urgency for water conservation has spearheaded a few recent efforts to de-silt and "reactivate" a few wells in Delhi and Gujarat in the hopes that they might once again collect and store water, though it may seem grim at the moment.

The Coastal Landscape of a Western Greek City: The Case of Selinus
Alba Mazza, The University of Sydney

The Greek coastal cities of the Mediterranean are known to be critical nodes of commercial and cultural networks. The coastal landscape of these Greek cities is understood not only as a physical place where the sea meets the land, but also as a social and metaphysical place. It is on the shore that people depart and arrive, meet and interact, and identities are shaped. Investigating the landscape of Greek coastal cities is important for enhancing our understanding of the Greeks overseas. Within this framework, the results of the investigation of the coastal landscape of one of the most famous Western Greek cities, Selinus, will be presented.

Through an interdisciplinary approach, it has been possible to study the coastal landscape of Selinus as never before. The analysis of new sources, including unpublished archaeological evidence, ancient and modern literature, historical cartography, geological information from archaeoseismological studies and sedimentological data from acoustic surveys and corings, has enabled the development of a more solid foundation from which to examine the coastal landscape. As a result, new elements of the palaeolandscape have been discovered.

For example, thanks to the results of corings and geoacoustic studies, it can be suggested that prior to the arrival of the Greeks, there was a lagoon at the mouth of the Cottone River. The existence of a palaeolagoon, never analyzed in detail before this study, sheds light on the natural setting on which the waterfront of the city was shaped, and the challenges and strategies the Greeks adopted in order to create an efficient water management system. Also, thanks to the comparative analysis of historical cartography and satellite imagery, it can be now suggested that the shape of the Acropolis was once different than it is today. It was most likely more protruding toward the south; as a result protected water spaces were available and, as suggested by historical sources but never actually proved, it was possible to moor safely.

Moreover, thanks to the results of this study, previously known archaeological contexts, such as sanctuaries and fortifications, can be framed more cogently. As a result, it is now possible to shed light on the role of the sea and the shore in the lives of the Selinuntinians.

Fishing and Fish Processing in Ancient Sinope
Antonia M. Santangelo, City University of New York

A region of contrasting landscapes connected by a sea of approximately two hundred species of fishes, the Black Sea is a fascinating case study with regard to the transmission of local maritime knowledge and practices throughout time. In terms of the analysis of archaeological fish remains, however, there has been a lack of stratigraphically excavated material identified and published to date for this region, especially for the periods of prehistory. The results of three seasons of icthyoarchaeological investigations in Sinop, Turkey, have provided new data with which to address this subject. The Sinop Kale Excavations Project has now compiled intriguing new preliminary data for the precolonial and early colonial phases of the ancient port of Sinope, including the discovery of evidence pertaining to

fishing and fish processing throughout different occupational phases of the site. This paper presents a systematic analysis of the fish and mollusk remains from stratigraphic contexts ranging from the late Bronze through Classical periods, including the unique discovery of preserved anchovy remains in multiple strata. The study of these anchovy elements and other retrieved seafood remains is not only vital for understanding local subsistence patterns and seasonal use of the site, but also significant for outlining the early mobile fishing practices of the region.

Marmora Asiatica, A Survey of Marble Quarries in Turkey: Results of the 2014–2016 Campaigns

Dagmara Wielgosz, University of Warsaw, *Marcin Bojanowski*, Institute of Geological Sciences, Polish Academy of Sciences, *Demir Erkanol*, Üniversiteler Mah, *Marcin Gładki*, PAST Research and Analysis of Heritage, *Agnieszka Jarmek*, PAST Research and Analysis of Heritage, *Mehmet Cemal Göncüoğlu*, Middle East Technical University, and *Leah Long*, Virginia Commonwealth University in Qatar

The Institute of Archaeology of the University of Warsaw recently launched the interdisciplinary project, "Marmora Asiatica, towards Archaeopetrology in Poland," financed by the National Science Centre of the Republic of Poland and supported by the Ministry of Culture of the Republic of Turkey and by the MTA. The main goal is to document the archaeology, geology, and topography of the largest and most important marble quarries of antiquity in Asia Minor. Another objective is to develop an extensive database of petrographic and geochemical properties of white and grey marbles. This database, along with digital maps, will be accessible to scholars in a GIS-based internet application. The five-year program of research is an international collaboration between classical archaeologists, geologists, and material scientists from Poland, Turkey, Italy, and the United States. The joint mission has carried out three research seasons of field reconnaissance: the first (2014) focused on the quarries of Isçehisar (ancient Dokimeion) and Göktepe, near Muğla, the second (2015) was conducted in the quarries of Altintaş and Aphrodisias, and the third (2016) surveyed on Marmara Island (ancient Prokonnesos).

The goal of the survey is to locate and record as many quarries as possible as well as collect marble samples to provide mineralogical, petrographic, and geochemical characteristics for the database. To identify quarries, we used published research and satellite imagery. Mapping was carried out with a total station and GPS-equipment, although the most important and useful tool here was a three-dimensional scanner, which allowed for estimates of the volume of stone extracted and precise models of the best-preserved quarries.

This paper presents a brief overview of the 2014–2016 field campaigns, highlighting new archaeological discoveries. Marmora Asiatica has added significant findings to previously conducted studies. At Dokimeion, the mission uncovered ten new marble quarries in addition to those classified by Röder; it was determined they remained in use until the 11th century C.E. At Prokonnesos, over 61 ancient quarries were documented, widely extending the plans of Asgari and Attanasio. We prepared a detailed map of the distribution of artifacts within the investigated area, which were both previously inventoried by Asgari and discovered by our team. Graffiti constituted another category of evidence. On a quarry

wall at Göktepe, ancient workers may have drawn an image of an Aphrodite. At Prokonnesos, a graffito of two boats may represent harbored ships. The shape of the anchors and sails suggest a date between the first century B.C.E. and seventh century C.E.

Dendroarchaeological Study as Key for Social and Economic Reconstruction in Urban Archaeology: A Case Study of Early Roman Jerusalem
Helena Roth, Tel Aviv University

Wood was an essential material in the ancient world, crucial for heating, food preparation, building, crafting, and pyrotechnical industries. Local cultural practices undoubtedly played a central role in wood selection, however very little is known regarding the economic and social factors that shaped wood exploitation in the southern Levant during the Early Roman period.

This paper will present a study of the wood economy of first century C.E. Jerusalem, during which the city revolved economically, politically, and socially around the Temple. The international pilgrimage to the Temple in Jerusalem, which reached its zenith in the first century C.E., brought much wealth to the city, as was shown by previous scholars. Although the city was, and continues to be, intensively excavated, very few dendroarchaeological studies have been conducted in Early Roman Jerusalem. Yet, examples of a multidisciplinary approach investigating the use of trees and their wood as well as the cultural choices applied during the process can be found in studies of the Western Roman Empire. It is on this background that different dendroarchaeological assemblages were explored.

The results relied in identification of the species of seven hundred and thirty-four charred remains from four excavations in the "Lower City" of Jerusalem, based on their anatomical structure, and on the investigation of contemporaneous written sources. The results show that:

1. Twenty species of wood, both local and foreign to the city's environment, were detected.
2. Different species were selected for specific functions (e.g., olive wood for fuel and pine wood for construction).
3. Wood usage was shaped by economic, social, and also symbolic factors.
4. These distinctions can be used in future studies to determine the nature of archaeological contexts (e.g., refuse or destroyed houses).
5. Anatomical determination of wood may be applied to reconstruct social status.
6. The study shows that dendroarchaeological investigations should be taken further than simply acquiring the botanical determination and indeed can effectively be used to address cultural, economic, and social questions.

SESSION 6E
Domestic Spaces and Household Industry

CHAIR: *Fotini Kondyli*, University of Virginia

Domestic Property in Karanis, Egypt: A Study of Private Houses and Shared Courtyards
Bethany Simpson, UCLA

The ancient town of Karanis (modern Kom Aushim), in the Fayum region of Egypt, is familiar to many discussions of the Greco-Roman world, thanks to the beautifully-preserved structures excavated by the University of Michigan (1924–1935). Over time, a handful of the more photogenic Karanidian structures have been used repeatedly as exemplars of domestic architecture for the site, region, and greater ancient Mediterranean and Near East; Karanis houses have cropped up in many publications as comparanda to such far-ranging sites as Pompeii, Herculaneum, Ostia, and Delos, to name only a few. However, these well-published houses only represent a small fraction of the site's known domestic structures, and are far from representative; in fact, they were chosen for publication specifically because they were atypically spacious, decorated, and/or well-preserved.

In contrast, my work on Karanis includes more than one thousand houses uncovered during the site's long excavation history, representing various types of domestic structures and spanning nearly 800 years of the town's occupation. By contextualizing these houses within the larger urban fabric of the settlement, I use space syntax theory in order to quantify relative values of accessibility and privacy created by the ancient architecture. In addition, my examination reveals a wide range of social and legal measures utilized by property owners, in order to secure their rights over such properties, balanced with the importance of not alienating those in neighboring properties. The complex social and economic relationships of Karanis neighborhoods can be traced in the architecture; while the houses themselves were undoubtedly designed to protect the privacy of the occupants, the outdoor areas of most domestic properties were designed to be more accessible to outsiders, with installations like ovens and mills shared with friends and neighbors. Thus the contextual study of Karanis houses highlights the essentially interconnected nature of life within such a settlement, and especially the desire of inhabitants to balance their own needs for privacy with their obligations to the broader social order.

Working for the "Palace": Households and Neighborhood in Late Third Millennium B.C.E. Eshnunna (Tell Asmar, Iraq)
Lise Truex, University of Chicago

To explore the value of the concepts of neighborhood and community in archaeological practice in early historic Mesopotamia, this paper examines an urban Mesopotamian residential area at Tell Asmar (ancient Eshnunna), Iraq. Tell Asmar became one of several major urban settlements in the Diyala River region, with

occupation of the site extending back into late prehistory. The research dataset comprises a limited subset of archaeological evidence recovered from the Tell Asmar Northern Palace Area and the Private Houses Area by the 1930s Oriental Institute (University of Chicago) Diyala Expedition excavations, and it concentrates on late third millennium B.C.E. occupation levels, architecture, and artifacts, as well as on ancient texts. Using methods of household archaeology to reconstruct urban household wealth and status, this paper investigates small household artifacts, determines artifact findspots within houses, and makes subsequent inferences about household activities and the dual roles of household heads in their official and private capacities. A detailed analysis of several houses compares one household with a life cycle that spanned the late third millennium with late Akkadian period houses and households that appeared alongside the architectural reorganization of the "Northern Palace." By reconstructing particular households in the context of the material culture of urban landscapes of the late Early Dynastic city-states and the Akkadian state, this paper seeks not only to analyze their activities within the residential area, but also to show that the Private Houses Area and the "Northern Palace" Building continually evolved as one neighborhood—because residents were constantly negotiating and maintaining interconnected private and official relationships—and as one community—they shared in all the growth, decline, and resurgence that connected them to broader socioeconomic and political developments.

The Olynthos Project: Report on Fieldwork Campaigns Conducted in 2017

Lisa Nevett, University of Michigan, *Bettina Tsigarida*, Greek Archaeological Service, *Zosia Archibald*, University of Liverpool, *David Stone*, University of Michigan, *Bradley Ault*, SUNY Buffalo, and *Apostolos Sarris*, Foundation for Research and Technology, Hellas

Since 2014 the Olynthos Project has been undertaking fieldwork at the Classical city of Olynthos (Chalkidiki, Greece) as a Synergasia between the Greek Archaeological Service and the British School at Athens, by permission of the Greek Ministry of Culture. This paper reports the results of excavation, field survey, and geophysical survey carried out during two fieldwork campaigns in 2017. The objectives were to gather evidence for the extent and layout of the city as a whole; to study the organisation, character and chronology of the settlement on the South Hill; and to reveal further evidence of a house on the North Hill (where excavation was begun in 2015).

On the North Hill, continued excavation in house B ix 6 provided more evidence for its construction, occupation, modification, and destruction. At the same time, scientific analysis of samples from that house has begun to provide detailed information about the domestic economy and about the range and organization of domestic acitivities. On the South Hill, excavation showed that the structures of the last phase of occupation were built using somewhat different techniques from those on the North Hill, and that well-preserved destruction deposits survive from that phase in this location. Surface collections within the city showed distinct chronological patterns in different locations. Field survey of 3 km² in its immediate hinterland has documented an increase in activities to the south and

east beginning in the Classical period, while less evidence has been discovered to the north. Evidence for cemeteries was located to the west. At the same time, four different geophysical techniques used in combination showed that less densely occupied neighborhoods existed on the North Hill and in parts of the Lower City. On the South Hill they showed that the street grid extended over almost the entire hill. They also provided an indication of the depth of the earliest phases of that grid in some areas. This combination of multiple investigative techniques is enabling a new picture of the city to be constructed at different scales.

Reconstructing Domestic Ritual at Olynthos Through Portable Altars and Vase Paintings

Sophia Taborski, Cornell University

With over 100 houses, the site of Olynthos has the potential to shed light on Greek domestic religion and everyday religious experience. However, given the multi-functionality of Greek domestic space and the absence of clear category distinctions between "sacred" and "profane" in Greek religion, how might we unlock this potential? Recent scholarship on Greek domestic cult argues that inhabitants temporarily created sacred space around hearths, braziers, or altars through ritual performances, such as singing, dancing, washing, perfuming, and chanting. However, these reconstructions of domestic ritual rely primarily on Athenian textual evidence that may not fully or accurately represent religious experience at Olynthos. Much recent research on Greek domestic religion also follows this literary evidence in focusing on periodic life cycle rituals, rather than the sacrifices and offerings that were likely more regular features of everyday experience.

This study addresses both of these issues through an examination of portable altars, which represent one of the primary tools for domestic sacrifices and offerings. First, I reconsider received definitions of "altars" to provide a clearer definition that incorporates both formal and functional elements. I then examine the iconography of vase paintings from Olynthos as evidence for locally-specific associations of altars. A corpus of vases produced and used in Olynthos depicts generic figures of both genders making offerings of distinctive, but previously unidentified, objects at altars. Based on parallels from terracotta figurines at other sites, I identify these objects as votive gifts of bread. This identification suggests a larger role than previously suspected for such quotidian offerings in the religious imagination at Olynthos. Finally, I employ contextual analysis of specific assemblages at Olynthos in order to investigate emic conceptions of domestic altars at different points along the *chaîne opératoire* of their production and use. Selected case studies present altars in contexts of production (the courts of Houses A 5 and A 10), commerce (House A vii 9), storage (the Villa of Good Fortune, the House of the Tiled Prothyron, and the House of Many Colors), and even in situ ritual use (House A iv 9). The results of this investigation provide more archaeologically grounded and locally specific evidence for reconstructing domestic ritual at Olynthos.

Of Loomweights and Labor: A Reassessment of the Textile Tools from Bau Z in the Athenian Kerameikos

Katherine B. Harrington, Florida State University

Although domestic production of textiles was common in Classical Greece, excavations have also documented establishments which likely produced textiles on a larger scale for the market. Bau Z in the inner Kerameikos of Athens is one of the most well-documented of these potential weaving workshops. The first three phases of the building (fifth-fourth century B.C.E.) contain substantial evidence for large-scale textile production, including abundant loomweights, spindle whorls, and ample provision for water, but most scholars have instead focused on an early interpretation of the third phase of the building as a brothel. The brothel interpretation rests, in part, on a controversial reading of iconographic and epigraphic sources which connect weaving to prostitution, and in such narratives, textile production is usually seen as of secondary economic importance to sex work for the residents of the building. Yet, confirming or refuting the presence of a brothel has been difficult, and the material record of the first three phases of the building suggests that the inhabitants engaged in a wide variety of economic activities. Setting aside the brothel issue, this paper focuses instead on what can be learned about the textile industry of classical Athens from the weaving tools of Bau Z.

The author weighed and measured more than 250 loomweights and spindle whorls from the building at the Kerameikos Archaeological Museum and DAI storerooms in April-May 2017. This paper presents the results of that study and argues that Bau Z was producing a wide range of textile products, but may have specialized particularly in a heavier weight cloth during the third phase of the building. Recent experimental work with standing looms has shown that looms become distorted if the loomweights used are too heavy for the thread, or vice versa. Thus, the weight and size of loomweights can provide a rough indication of the thickness of the cloth produced with them. Similarly, the thickness of thread which results from spinning is related to the circumference and weight of the spindle whorl. Textile production was extremely time-consuming and should be interpreted as economically important in its own right, not just as an occasional supplement to other economic activities which may have occurred in the building. More broadly, the paper asserts that acknowledging the economic importance of labor in the textile industry can enhance our understanding of the nature of ancient economy and women's roles within it.

Nourishing Infants: The Function of Ancient Greek Feeding Bottles

Debby Sneed, UCLA

Feeding bottles are variously identified as alternatives to breastfeeding, aids for weaning, or a means for administering medicinal concoctions to adults. I argue, however, based on a combination of context analysis, residue analyses, and textual and iconographical evidence, that feeding bottles are best understood as specialized vessels for feeding infants and small children, and rarely adults, who were so weak or sick or who presented such severe orofacial deformities that they were unable to obtain nourishment by any other means. These feeding bottles represent

active investment undertaken on a community level to assist its youngest members who required extraordinary efforts in order to survive.

A variety of vessels as early as the Late Neolithic period in Greece are labeled as "feeding bottles" or "feeders," but the ones under consideration here date from the Late Bronze Age or Early Iron Age through the Hellenistic period. Feeding bottles are characterized by their squat, rounded shape with a handle set at 90 degrees from a long, narrow spout that leaves the body of the vessel at a slight upward angle. These vessels are found almost exclusively in burials of infants and small children, rarely with adults, and almost never in domestic or other use contexts. Residue analyses performed on examples from several periods demonstrate that these vessels most typically contained milk, whether human or animal, and a variety of physical and iconographical evidence demonstrates that the vessels were, indeed, used before they were placed inside the grave. The relative rarity of these vessels suggests that we should consider these not as general-use cups, but instead as vessels produced for a specific and uncommon purpose, one that primarily affects infants and small children who were at an unusually high risk of death. This interpretation is bolstered by the presence of a feeding bottle in a second century B.C.E. well in the Athenian Agora that contained the remains of 449 infants, the majority of whom can be assumed to have died of natural causes before, at, or slightly after birth. The long-lived production and consumption of these vessels suggests that the health and wellness of infants and small children was not limited to the family sphere, but was a matter of concern for entire communities.

Karanis "Rag Dolls": A New Interpretation
Shannon Ness, University of Michigan

The University of Michigan's Kelsey Museum of Archaeology currently displays a variety of toys from Karanis, a Greco-Roman agricultural town located in the Fayum. Playthings such as a rattle, a horse-shaped pull-toy, and a wooden sword readily recall modern toys and allow visitors to envision a childhood in antiquity. Included among these objects are several "rag dolls." These small textile artifacts consist of one or more pieces of cloth bound together to form a knot with the remaining fabric hanging loosely below. A few examples have additional features interpreted as anthropomorphic details: one object has a braid of hair attached to the knot, while another has decoration that resembles a pair of eyes. These features, however, are not shared by all of the rag dolls, and of the 16 examples held by the Kelsey Museum, only one object features more than one anthropomorphic detail. Thus these rag dolls are strikingly different in scale and form from play-dolls known from Egypt and the wider Roman Empire.

The Kelsey rag dolls lack the articulated limbs and detailed anatomical features that are characteristic of cloth dolls, Coptic bone dolls, or jointed dolls. The Kelsey examples range from 3–10 cm in height and are therefore consistently smaller than other known play-dolls dating to the Roman Imperial Period. Furthermore, it is difficult to reconcile these textile objects with modern theories on toy-play that suggest playtime with toys allows children to be socialized into their society. A child with a toy horse and a wooden sword may pretend to be a soldier without the real world consequences of warfare. Similarly, dolls allow young children to

act out motherhood or domestic situations in meaningful ways that prepare them for their future lives. The Kelsey rag dolls are inconsistent with current theories on dolls and should no longer be identified as such.

Instead, working with cross-cultural practices in infant care, I offer a new interpretation for these artifacts as soothers, objects intended to comfort infants and younger children. In scale and form, these objects closely resemble ragbags, scraps of cloth tied around foodstuffs or other objects, which were given to children to suck. Such cloth soothers were widely used in agricultural communities until the introduction of the modern dummy nipple or pacifier. Such an interpretation can allow for a more detailed image of infancy in Roman Egypt.

SESSION 6F: Colloquium
Sinope Citadel Excavations: A Precolonial and Early Colonial Nexus of Black Sea Communications

ORGANIZER: *Owen P. Doonan IV*, California State University, Northridge

Colloquium Overview Statement

The Sinop Kale (citadel) Excavations, initiated during the summer of 2015 with the support of the National Geographic Society and the National Endowment for the Humanities, have provided important new evidence about the precolonial and early colonial phases of settlement and communication in the Black Sea region. These results place the earliest phases of the pioneering Milesian colonial port of Sinope in the cultural context of the Sinop promontory and that of the Black Sea and Anatolia from the late third to first millennia B.C.E. A remarkably diverse assemblage of Bronze Age, Iron Age, and Archaic-Hellenistic ceramics demonstrate remarkably diverse links around the Black Sea, in western and central Anatolia, and the broader Greek world. Furthermore, our excavations have clarified the complex history and stratigraphy of one of the defining monuments of ancient Sinope: the fortification wall that established the landward edge of the city from the Archaic period to the end of the Ottoman Empire.

The proposed colloquium synthesizes results of three seasons of excavation at Sinop Kale in seven papers, including an overview of project goals and context, a discussion of the stratigraphy, and papers on a series of key topics by core team members. Coauthored presentations will be offered on precolonial finds, archaic and classical ceramics, the construction and subsequent transformation of the Hellenistic wall, a previously unknown Middle Byzantine wall and an overview of floral and faunal finds. Each of these topics is breaking new ground in our understanding of Black Sea history. The precolonial results have suggested a pattern of mobile fishing in the region from the late third to the early first millennia B.C.E. The remarkable diversity of the archaic and classical ceramics provides insight into the unique nexus of connections for the first Anatolian Milesian colony and its own network of Black Sea colonies. The history of the Sinop fortification wall provides significant archaeological evidence relevant to the emergence of the Pontic Kingdom as a maritime power, while the history of the Middle Byzantine wall sheds light on one of the least known periods in the region and the naval networks

that formed the foundation of the Genoese and later maritime systems in the Black Sea.

"Sinope Citadel Excavations" offers the first detailed presentation of results from the excavations of this key site in one of the most critical but understudied regions of the greater Mediterranean and Eurasian world.

Walls and the City: The Fortification of Sinope in the Byzantine Period

Paolo Maranzana, University of Michigan, and *Krzysztof Domzalski*, Institute of Archaeology and Ethnology, Polish Academy of Sciences

The city of Sinop, situated on the southern coast of the Black Sea, represents a unique case to address questions on the long-term urban development of ancient cities. Sinop was continuously occupied since the Bronze Age and grew remarkably through the following centuries, while interacting with regional and supraregional powers of the time. During this period, the city developed typical urban features, which can now be studied in greater detail.

In this paper, I will consider a fundamental element of the urban fabric of this important site: its defensive system and its development in the Byzantine period. The city had been protected by imposing walls since the Hellenistic period, and their extent and impressiveness are often remarked upon in the ancient literature. The structure was often manipulated, renovated, and enlarged until the Ottoman Period, hindering the possibility of studying its different phases without more extensive fieldwork. The archaeological project, directed by Prof. Doonan, inaugurated in 2015 a series of explorations in the western part of the city, uncovering new key evidence for the chronology, design, and building technique of the Byzantine city wall. Preliminary results from the 2015–2016 seasons revealed a structure constructed about 5–6 m southwest of the Hellenistic wall, which consists of mortared rubble placed in a narrow foundation trench. This new addition to the defensive system of Sinop occurred most likely in the ninth century C.E., when the Byzantine State had started a large program of investment in urban fortification. This trend, which is now visible at Sinop, was part of a general socioeconomic and political reorganization directed to resist the threats brought by the Arabs.

Archaic and Classical Pottery from the Sinop Kale Excavations, 2015–2017

Ulrike Krotscheck, The Evergreen State College, and *Jane Rempel*, Sheffield University

In the Greek colonies of the Black Sea, newly arrived settlers invariably remained connected to existing trade networks, not only to their founding cities, but also to other commercial centers in the Mediterranean. The archaeological evidence from Olbia, Histria, and others shows that the immigrants not only brought much of their material culture with them, but also continued to import it. Extant contemporary narratives for the this period in the Black Sea are sparse, so archaeological excavations become more important in assessing the extent to which this happened. The Greek colonial foundations on the south coast of the Black Sea have been much less well investigated archaeologically, and the stratigraphic

excavations conducted by Sinop Kale Excavations provide the opportunity to investigate the issue of continuity in importation and exchange with new data.

Excavation results in the Greek colonies in other parts of the Black Sea show different habits in the imports of ceramics from the Aegean and the Ionian Greek cities, which, we argue, reflect varied connections to regional exchange networks. This paper presents the early imported Greek pottery from Sinop Kale Excavations and compares the assemblage with other well-documented sites. Our preliminary results allow, for the first time, the positioning of southern Black Sea communities in these trade networks.

Exploring an Urban Liminal Zone in Ancient Sinope
Andrew Goldman, Gonzaga University

The ancient city was a dynamic entity: a multifunctional urban construct which served as a nexus of complex commercial, administrative, social and religious interaction. The archaeological investigation of ancient urban landscape continues to generate important insights into how such centers developed and functioned over time, as their physical geography transformed and adapted to changing conditions, such as the arrival of new populations, threats to internal and external security, and increased political significance (perhaps leading to an acceleration towards monumentality). In Anatolia and the Black Sea region, the study of such urban entities has traditionally centered upon an exploration of either primary internal zones of habitation, commercial or religious activity, often within or near the core of the city, or neighboring external zones populated by related suburban settlement or designated for use as cemeteries. Far less attention has been paid to liminal zones, peripheral areas which lay on the edges of the city and at the intersection between polis and necropolis, demarcating their boundaries and controlling passage between them.

The initial three field seasons (2015–17) of the Sinop Kale Excavations have focused on investigating the city's primary liminal zone, a thin strip of land which cuts across both the highest and narrowest portion of the Sinop peninsula. Preliminary fieldwork has revealed that the area of current excavation underwent profound a transformation in function and appearance between the Late Bronze Age or Early Iron Age and the Byzantine period, as it was repurposed from a habitation zone into an increasingly fortified barrier, one which firmly controlled the primary landward access to the city, acropolis, and harbor. This paper will examine the stratigraphic phasing revealed during the past three seasons, offering a reconstructive, diachronic framework for urban development in this dynamic liminal zone of ancient Sinope.

Floral and Faunal Finds from the Sinop Kale Excavations
Evangelina Pişkin, Middle East Technical University, *Emine Sökmen*, Hittite University, and *Antonia M. Santangelo*, Graduate Center, City University of New York

Research on animal and plant remains at Sinop Kale Excavations aims to reconstruct the ancient agriculture and animal husbandry as well as the exploitation

of the environment. No doubt, the central question in this investigation is the application of animal husbandry and agriculture by precolonial inhabitants and colonists: in an environment with a very different terrain, vegetation, and climate from the founding lands; the ways they adapted to it; and the influence they may have received or exercised from and to local populations.

At present our research is still at an early stage, and it is premature to draw clear inferences, nevertheless it has allowed us a first glimpse of a large subject. Fish bones and related remains are observed in assemblages from precolonial contexts. Concerning the animal husbandry at the colony of Sinope, most numerous are the bones of cattle, followed by pig, and then ovicaprids. This finding is rather in contrast with the usual pattern of most Anatolian sites where ovicaprids make up the bulk of bone assemblages. Nevertheless, there are definitely exceptions to this rule. For example, cattle outnumbered any other find in a small bone assemblage from Filyos, another colony in the region, examined by the lead author. Pig abundance is very interesting in that its exploitation shows a lot of variation across periods and across Anatolia. It is more abundant in Classical and Roman times, even sometimes connected with these populations. In this case, though, it will be difficult to argue for the introduction of a new dietary element because pig and wild boar are abundant in Bronze Age Ikiztepe, 100 km to the east. Amongst the wild animals, boar and fallow deer have been identified: both indicators of a thinly forested environment with good water sources.

Floral evidence recovered thus far suggests the cultivation of grapes, wheat, and peas. The few fragmentary wheat remains are of glumed wheat species, a rather archaic and less productive form of wheat compared to the free-threshing wheats. In many regions of Anatolia this type of wheat had been abandoned long before the Classical period. Nevertheless, glumed wheats are very suitable for the climatic conditions of the Southern Black Sea and are cultivated here even today. The question deserves thorough investigation as it has significant implications for local productivity and economic potential for wheat farming, as well as the level of population that can be sustained on such crops.

The Hellenistic Fortifications of Ancient Sinope: Construction, Chronology, and Reconstruction

Jane Rempel, University of Sheffield, and *Owen P. Doonan IV*, California State University, Northridge

The ancient fortification wall of Sinop Kale represents the best surviving Hellenistic fortification in northern Asia Minor and the Black Sea region. Despite this, the chronology and physical layout is not well understood and the Sinop Kale Excavations represent the first systematic attempt to investigate these fortifications archaeologically.

Textual references attest to a fortification wall overlooking the harbor of Sinope at least as early as the early fourth century B.C.E. (Polyaenus, *Stratagems* 7.21). Traces of a stone and mud-brick structure parallel to and several meters west of the Hellenistic wall may offer evidence of this early wall. Strabo, around the beginning of the common era, called Sinope a "beautifully walled city" (12.3.11). The Hellenistic wall that he was describing ran as a curtain wall northwest to southeast

across the neck of the Boztepe peninsula. The best surviving section of the original Hellenistic wall is located at the northwest end, in the area recently investigated by the Sinop Kale Excavations.

The extant wall is from the Hellenistic period and has been traditionally associated, through historical sources, with one of two kings of Pontus: Pharnakes I or Mithridates VI. Until now, however, this chronology has not been investigated archaeologically and the design of this fortification wall is unique, defying traditional typological categorization and reconstruction of the original layout. Since 2015, Sinop Kale Excavations have undertaken a systematic analysis of the Hellenistic fortification wall, including: stratigraphic excavations of the foundation trench, providing a close understanding of its construction process and date; recording of the remains of the wall using 3D modelling; and targeted geophysical survey along the line of the Hellenistic curtain wall. This paper will present the results of this analysis and the latest chronological and architectural reconstruction of the Hellenistic fortification wall of ancient Sinope.

Sinop Kale Excavations in the Context of the Sinop Regional Archaeological Project and Black Sea history

Owen P. Doonan IV, California State University, Northridge, *Alexander A. Bauer*, Queens College, City University of New York, *Andrew Goldman*, Gonzaga University, and *Emine Sokmen*, Hittite University

The Sinop Kale (citadel) Excavations, initiated during the summer of 2015 with the support of the National Geographic Society and the National Endowment for the Humanities, have provided important new evidence about the precolonial and early colonial phases of settlement and communication in the Black Sea region. The excavation has developed within the framework of the Sinop Regional Archaeological Project (SRAP), which has completed eight full seasons of investigations in suburban, rural, coastal, and highland areas of the Sinop Promontory. The project was initially conceived as a cross-disciplinary investigation of the organization of ancient trade that included studies of the hinterland and productive territory of Sinope coastal industrial and port installations, and underwater evidence for trade routes and other maritime economic activities. SRAP results to date have been published in more than 40 scholarly papers and abstracts and one volume: O. Doonan, *Sinop Landscapes: Exploring Connection in a Black Sea Hinterland*.

The 2015–2017 research plan addresses the following basic questions.

1. Establish evidence for the participation of pre-Greek colonial coastal settlements in fishing activities and also making use of terrestrial resources that provide links for interactions in later horizons;
2. Refine the chronological typologies of local prehistoric, Greek, Roman, and post-antique ceramics and develop the program of ceramic ware technology studies to include these later periods;
3. Establish a sequence of vernacular and monumental architectural evidence for the origins and development of the colonial port city; and
4. Obtain ceramic, lithic, organic and other finds with secure provenience that clarify the articulation between local and regional networks in which the port of Sinope played a central role.

These results place the earliest phases of the pioneering Milesian colonial port of Sinope in the cultural context of the Sinop promontory and that of the Black Sea and Anatolia from the late third to first millennia B.C.E. A remarkably diverse assemblage of Bronze Age, Iron Age, and Archaic-Hellenistic finds demonstrate remarkably widespread links around the Black Sea, in western and central Anatolia, and the broader Greek world. Furthermore, our excavations have clarified the complex history and stratigraphy of one of the defining monuments of ancient Sinope: the fortification wall that established the landward edge of the city from the Archaic period to the end of the Ottoman Empire. The Sinope Kale Excavations offer the first detailed results from the excavations of a key site in one of the most critical but understudied regions of the greater Mediterranean and Eurasian world.

The Handmade, Precolonial Ceramics from the Citadel of Sinop, Turkey: Some Preliminary Observations

Alexander A. Bauer, Queens College, City University of New York, and *E. Susan Sherratt*, University of Sheffield

This paper presents an overview of the handmade, pre- (and possibly para-) Colonial ceramics uncovered through the first three seasons of excavations at the Kale (citadel) of Sinop, Turkey. Although the date of these ceramics is yet to be firmly established, the majority of this material comes from the western edge of the site and is associated with several walls reminiscent of semi-subterranean houses excavated by the Sinop Regional Archaeological Project in other parts of the site and known elsewhere in the later Bronze and Iron Age Black Sea. The ceramics are generally dark-faced and burnished, in forms that appear at first sight typical of Early Bronze Age ceramics known from elsewhere in the region. The most remarkable feature of this material, however, is the wide variety of horizontal rope-like bands, sometimes incised and sometimes in relief, decoration that has parallels in pottery from sites across the north Pontic region, and may represent the site's links to diverse Black Sea traditions. Analysis of the forms and wares, along with Portable X-Ray Fluorescence (pXRF) spectroscopy, helps bring clarity to the question of this material's origins and production, and suggests that in its earliest phases, the Sinop Kale site may have acted as a waypoint or node in an informal long-distance maritime network.

SESSION 6G: Colloquium
New Approaches to Caves and Worship in the Ancient Mediterranean

ORGANIZERS: *Alexander Nagel*, National Museum of Natural History, Smithsonian Institution, and *Stella Katsarou*, Hellenic Ministry of Culture, Ephoreia of Palaeoanthropology-Speleology

Colloquium Overview Statement

Caves constitute familiar geological and cultural locales in Greece and in the wider Mediterranean. As dark subterranean interiors or carved rock shelters, caves have hosted communities who confront an otherworldly, chthonic domain. Humans, in response to the metaphysical cosmos evoked by a cave-scape, have developed a broad range of religious and cultic idiosyncrasies. Systematic investigations conducted in recent years by research units of the Ephorate of Palaeoanthropology-Speleology of the Ministry of Culture of Greece, their counterparts in Italy, and researchers around the world have produced new data that offer clearer insight into ritual activities within local and regional Mediterranean cave sites and their environments. The proposed session aims to reassess the growing body of data and explore new research agendas in the field.

"Caves and Consumption: Evidence from the Polis 'Cave' on Ithaca" introduces results of an investigation which compares previously unstudied materials such as amphorae, cooking, and kitchen wares from a cave site with find assemblages from contemporary settlements on the island of Ithaca. "Caves as Sites of Sensory and Cognitive Enhancement" explores new ways of thinking about cave-scapes by discussing space, accessibility, and the aesthetic experience experienced at a cave site excavated on the island of Crete. "Cave Sanctuaries in the Cyclades in the Light of New Finds from Irakleia" discusses the find assemblage from a previously unknown cave site in the Cyclades. Three presentations explore possibilities to identify aspects of cult, gender, and community performance from assemblages excavated recently in cave sites in southern Italy and western Greece ("Grottoes and the Construction of Cult in Southern Italy," "The Drakaina Cave on Kephallonia: Exploring Western Greek Cave Cult," and "A River Ran Through It: Circulating Materials and Technologies by the Acheloos in Akarnania"). "Terracotta Figurines in Greek Sacred Caves" offers results from an investigation addressing questions related to the display, longevity and role of coroplastic materials in Eastern Mediterranean cave contexts. In summary, the session highlights recent advances in the study of caves and cult in the Greek Mediterranean and thus underscores the value of cave studies as an autonomous field within classical archaeology that significantly enriches our understanding of the practice of ancient religion.

Caves and Consumption: Evidence from the Polis "Cave" on Ithaca
Catherine Morgan, All Souls College, Oxford

The Polis cave, on the northeast coast of Ithaca, commonly characterized as a hero shrine to Odysseus, has been interpreted as a primarily maritime destination

frequented by passing sailors. This partial view, which emphasizes votive objects rather than collective events, rests on the small proportion of evidence so far published from the excavations of the British School at Athens in 1928–30. Attention has focused on the Early Iron Age to early Archaic record, while Classical to Middle Roman evidence remains little known. Study of this material, together with a new geological survey of the site, has been undertaken as part of a program to revisit the BSA's inter-war work in northern Ithaca.

The approximately 3,500 objects recovered from the rock-shelter in the Polis bay allow us to reconstruct long term trends in consumption as an important aspect of worship at the site throughout its history, noting the changing local needs served by the shrine. Particular attention is paid to a substantial collection of Classical-Middle Roman amphorae, cooking and kitchen wares, which are compared with evidence from earlier periods at the site as well as contemporary domestic assemblages from the main Ithakesian settlements at Aetos and Agios Athanasios. Discussion encompasses the scale and organization of consumption events, the nature and capacity of vessels, and the place of dining within ritual activity. Analysis of coarse and cookware fabrics in the BSA's Fitch Laboratory helps to place evidence from the Polis in the context of wider trade networks. Attention is paid to diachronic changes in site context.

Caves as Sites of Sensory and Cognitive Enhancement
Nassos Papalexandrou, The University of Texas at Austin

This paper explores the idea of caves as sites of sensory and cognitive enhancement. Taking my cue from a combination of Nick Fisher's aesthetics of rare experiences with Foucault's notion of heterotopias, I focus on caves as liminal spaces in which the familiar yields to the unfamiliar and the known colludes with the marvelous to create extraordinary dimensions of sacredness and ritual action. These dimensions have recently been revisited by scholars involved in the discovery and subsequent exploration of the Upper Palaeolithic cave at Chauvet, France, which has yielded the earliest archaeologically documented instance of ritual action within a cave. Herzog's meditative interpretation of Chauvet as a portal to a spiritual world and Clottes' explanation of Palaeolithic images in caves as media for shamanistic practices may be fascinating but controversial. However, these approaches have generated an understanding about caves as physical spaces of sensory enhancement and, consequently, of religious experiences. With these considerations in mind, I argue that attention to the experience of the physical and cultural materiality of caves may offer itself as a promising methodological inroad towards our understanding of caves as religious spaces. My study case is the famous Idaean Cave of Crete. The physical spatiality of the cave itself (orientation, geology, dimensions, hidden or inaccessible spaces, vistas, flora and fauna, mineralogy) may be a productive phenomenological field. This field enables new approaches towards a rich assemblage of sumptuous objects deposited in the cave between the ninth and seventh centuries B.C.E. We need to ask about the quality and significance of experiences this materiality afforded to those who were allowed to make physical and cognitive contact with it either within or around the cave. How, for example, is one to explain the effect and affect of the large bronze

shields with protomes in the form of monsters surrounded by oriental(izing) narratives wrought in repoussé? Their aggressive visuality points to rare sensory experiences, the analysis of which may yield new insights on how the materiality and physicality of the cave constituted its sacred aura. In this case, there is enough evidence for tentatively arguing that the Idaean Cave was like an otherworldly and exclusive "Wunderkammer." The consideration of a cave as a "Wunderkammer" might have rich implications on how we understand the active role of space and material culture to the generation of experiences of sacredness.

Grottoes and the Construction of Cult in Southern Italy
Rebecca Miller Ammerman, Colgate University

Humans have frequented caves, rock shelters, and grottoes from the earliest of times. In the archaic and classical Greek world, such geomorphological phenomena provided an exceptionally suggestive setting for the practice of cult. The same holds true for the indigenous populations that inhabited southern Italy prior to and alongside the many Greek settlements that were founded on the Ionian coast beginning in the eighth century B.C.E. While Greek literary and epigraphic sources offer intriguing insights into the performance of mystery cults, rites of initiation, and oracular consultations in caves, far less is known about the rituals that took place in the caves of southern Italy. A survey of half-a-dozen cave sites in Puglia and Lucania where ritual actions by the local indigenous communities are archaeologically documented reviews briefly the topography, architectural structures, pottery, terracotta figurines, other artifacts, and environmental data recovered for each site. Similarities and distinctions between the different sites reveal patterns that shed light on ritual practices and beliefs of the non-Greek inhabitants of southern Italy. Attention then shifts to sanctuaries within the territory of two Greek poleis, Grotto Caruso at Locri Epizephyrii and Pantanello at Metapontion, where the setting of a rocky grotto is artificially enhanced or strongly evoked by the imagery of the votive objects that worshipers dedicated at each shrine. The keen importance of the culturally constructed concept of a cave or grotto as the locale where certain rites based on a larger system of beliefs are enacted is considered for both sanctuaries. The Italiote Greek vernacular that emerges from this study is compared to the indigenous expressions of cults that were practiced at cave sites. Links to cults practiced across the Ionian Sea in western Greece are likewise noted.

The Drakaina Cave on Kephallonia: Western Greek Cave Cult and the Significance of Votives
Aggie Karadima, Birkbeck College, London

Numerous caves from the coast of western Greece and the Ionian Islands exhibit consistent and standardized dedicatory practices that span from the seventh to the second century B.C.E. Find assemblages allow us to characterize performances related to rituals and practices such as hunting, dancing, masking, sacrificing, and feasting. In this contribution, I focus on find assemblages excavated in a cave on

the island of Kephallonia. I attempt to interpret the offerings through the prism of a conscious choice, socially meaningful for the dedicators. I connect the meaning invested to objects to very specific earthly concerns and aim to reconstruct its significance for the lives of the communities that maintained the cult. To produce a meaningful interpretation, I consider most of the artifacts as bearers of socially constructed ideas that assisted people in making sense of their world. The popular belief among ancient Greeks that caves were in some way "meeting places" with the world of the dead and the world of the gods, where access was prohibited to mortals, turned these cave-spaces into typical places of a cult that exhibited uncertainty, anxiety, and fear and at the same time facilitated change. My primary aim is to put forward one of the main aspects of the cult: its connection with life crisis events such as marriage, pregnancy, childbirth, rearing of children that concerns mainly women, and coming of age for both men and women. My hypothesis is that the analysis of the iconography and technical characteristics of the objects, along with practical aspects of the cult, correlate with the religious ideas, emotions and motives of the dedicators. Consequently, I try to outline through the materials the social function of the divine recipients of Drakaina cave. Finally, I focus on the interrelated stories that result from a carefully constructed narrative, which was repeated at the cult site and created a bond between deities, among the users of the cave sites and the lands they inhabited.

Cave Sanctuaries in the Cyclades in the Light of New Finds from Irakleia

Antonis Kotsonas, University of Cincinnati, *Fanis Mavridis*, Ministry of Culture and Sports of Greece, Ephorate of Palaeoanthropology and Speleology, and *Žarko Tankosić*, Norwegian Institute at Athens

Caves were commonly used as sanctuaries in numerous Aegean regions in the first millennium B.C.E., but the Cyclades was not one of these regions. The cave of Antiparos, with its inadequately known finds, was the only Cycladic cave sanctuary that was widely known until recently. The Irakleia Cave Exploration Project is currently investigating a second cave sanctuary in this region, on Irakleia, south of Naxos. Located on a small island that is hardly mentioned in the ancient sources and has attracted minimal archaeological investigation, the cave sanctuary of Irakleia presents particular interpretative challenges. Our paper discusses the topography of the cave complex that encompasses the sanctuary, describes the methodology of its investigation by the Ephorate of Palaeoanthropology-Speleology and the Norwegian Institute at Athens, and summarizes the shifting uses of this complex from the Neolithic to the Roman period. Emphasis is placed on developments of the first millennium B.C.E. It is argued that the use of the cave complex as a sanctuary emerged in the Geometric period and persisted thereafter with considerable fluctuations in patterns of material consumption. The range of finds recovered (largely pottery and figurines) and the chronological patterning of the material are: assessed against the literary and material record from the island of Irakleia; compared to the evidence from the Antiparos cave; and set within the context of the archaeology of the Cyclades.

A River Ran Through It: Circulating Materials and Technologies by the Acheloos in Akarnania
Stella Katsarou, Ephorate of Palaeoanthropology-Speleology, Ministry of Greece, and *Alexander Nagel*, National Museum of Natural History, Smithsonian Institution

Akarnania is noteworthy for offering the largest resource of water on the western Greek mainland, a fact which has structured most archaeological research conducted in the region in recent years. It has become clear that during the Archaic and Classical periods, sites such as Stratos and Oiniadai along the majestic Acheloos river were home to cults and festivals which highlighted the importance and dependence on water resources by issuing coin types and creating sculpture and other artifacts related to Acheloos and the Nymphs. In this paper, we present an assemblage of materials excavated in the cave site of Mastro near the ancient city of Oiniadai in 2016. We demonstrate the role of local craftsmen and populations in creating a visual imagery related to Acheloos and the nymphs which requires us to rethink traditional approaches to cult and ritual performance on the western Greek mainland. Through an analysis of coroplastic materials and pottery excavated on a number of sites, we argue that the mobility of craftsmen enabled the exchange of coroplastic and ceramic technologies between different sites along the river. A preliminary survey of the find assemblage from Mastro and other sites along the Acheloos conducted in 2016 and 2017 suggests that the assemblages find parallels in materials published from excavations on the agora and the cemeteries of Oiniadai, but also with sites further north along the Acheloos river.

Terracotta Figurines in Greek Sacred Caves
Katja Sporn, German Archaeological Institute, Athens, Greece

Terracotta figurines are among the finds in caves which—if found in a considerable number—might indicate the cultic use of the cave. This paper will first discuss instances of finds of terracotta figurines in Greek caves and matters of chronology. It will then discuss the types of figurines found in caves. Based on that, a number of questions will be addressed. Are some types specific for cults or even for caves? Are there preferences according to regional/local fashion, or use in private or official rituals? Or were they even involved in rituals for certain gods? Where have they been found and what can be said about their use in the cult and the deposition in or in front of the cave? Were they displayed in a specific way, or were they connected with rituals of washing, coloring and dressing as marble statues were? How long were they on display? Do they have any trace of deliberate firing or deliberate destruction? Were they brought alone or in groups or sets? Were they combined with certain other goods such as metals, ceramics, or bones? Were they common in the same phases or were they substituted in some phases by other votives—or did they themselves replace other votives? Why would this happen? It will be shown that votive figurines were a more important group of votives in cave contexts than in other sanctuary types due to different ritual behaviors and participants in the cult. An emphasis will be made for caves in Attica, where this

feature was specifically common, but the results will be compared to other parts of Greece, especially the western Greek islands and Crete.

SESSION 6H: Workshop
New Approaches to Ancient Wall Painting in the Mediterranean

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

Workshop Overview Statement

From the Bronze Age Aegean to the late Roman Empire, images on walls and panels mediated the experiences and interactions of the individuals who lived, worked, and worshipped in those spaces, transforming a range of settings into places for religious or other social experience. New methodologies, technical studies, and recent discoveries are bringing into sharper focus the techniques and uses of ancient painting and what it can tell us about ancient artists and patrons throughout antiquity.

This interdisciplinary panel seeks to explore new sites, research, and approaches to ancient wall decoration and religious subject matter from the fields of archaeology, art history, and conservation science. It brings together a broad set of presentations with a chronological and geographical range covering Minoan Crete, the Hellenistic Levant, Roman Egypt and the Bay of Naples. With the aim of presenting examples of our current state of knowledge, as well as possibilities for future research, we include papers that consider status and ritual practice, the articulation of space via design and imagery, and the ways that technical studies help us understand materials and techniques in the context of ancient lives and processes.

This session builds on the successful series of annual workshops and colloquia at AIA/SCS annual meetings sponsored by the Ancient Painting Studies Interest Group (APSIG) since 2012. This workshop session remains an important forum for sharing ideas, research approaches and results, and will continue to foster dialogue among scholars working across disciplines, including art history, classical studies, archaeology, conservation, material science, anthropology, and museum studies. This year, we are very pleased to co-sponsor the session with curators from the the J. Paul Getty Museum.

PANELISTS: *Elaine Gazda*, University of Michigan, *Elizabeth Johnstone*, University of Leicester, *Jocelyn Penny Small*, Rutgers University, *Hilary Becker*, Binghamton University, *Kate Smith*, Straus Center for Conservation and Technical Studies, Harvard Art Museums, *Leslie Rainer*, Getty Conservation Institute, *Benton Kidd*, Museum of Art and Archaeology, University of Missouri, *Bethany Simpson*, UCLA, *Elizabeth Shank*, INSTAP Study Center for East Crete

SESSION 6I: Workshop
Debating the Boston Throne: Dating, Function, & Meaning

MODERATOR: *Clemente Marconi*, Institute of Fine Arts, NYU

Workshop Overview Statement

Since its unveiling to the public in 1909, the marble relief at the Museum of Fine Arts known as "Boston Throne" has been the subject of much disagreement among scholars. Under discussion have been the dating, function, and meaning of the sculpture, making the "Boston Throne" one of the most controversial works of Greek art.

The lack of precise information concerning its findspot; the stylistic differences with its counterpart, the "Ludovisi Throne;" and the difficulties in interpreting the main scene have prompted the suggestion that the "Boston Throne" would be a late 19th century forgery produced in Rome in association with the "Ludovisi Throne" and catering to the same market.

That the "Boston Throne" would be a modern forgery represents a minority point of view within scholarship. Yet, in the camp of those supporting the authenticity of the work there is far from consensus about basic aspects such as chronology, function, and meaning. Thus, proposals for the dating of the relief range from the Early Classical to the Early Imperial period. As for its function and provenance, while there is agreement that the relief is not a throne, the sculpture has been variously identified with either the parapet of an altar or a bothros, or the crowning of a naiskos, with suggestions for its place of origin covering a wide geographical spectrum, including Thasos, South Italy, and Rome. Last but not least, the meaning of the scene on the main side has proved very contentious, including the identification of the naked, winged boy weighing two souls, and the identity of the two women seated at either side. If stylistic and iconographic analyses have not led to any definitive conclusion about the "Boston Throne," scientific examinations have proved equally controversial, with the notable exception of the provenance of the marble, from Thasos.

The latest discussion of the "Boston Throne" by a group of scholars took place in Venice in 1996. The AIA meeting in Boston appears an ideal venue for proposing a new dialogue about this work, taking into account the new evidence that has accumulated in the past twenty years concerning, on the one hand, Late Archaic and Early Classical sculpture, and on the other, the late 19th century market of Greek and Roman antiquities between Italy and the United States. In preparation for this workshop, a new scientific examination of the relief will be performed, mainly in search for possible traces of original polychromy. There is no set agenda for this workshop. Its goal is to offer a new discussion of the relief, exploring the most contentious issues in the light of old and new evidence. A curious feature of scholarship on the "Boston Throne" is that all too often arguments about the authenticity and style of the relief have been made without autopsy of the sculpture, but only relying on casts or photographs. In response to such poor methodology that has affected the study of sculpture, particularly in the second half of the twentieth century, the workshop will be held in front of the work and the plexiglass bonnet

covering the "Throne" will be removed so as to allow for a close examination of the carvings.

PANELISTS: *Christine Kondoleon*, Museum of Fine Arts, Boston, *John Hermann*, Museum of Fine Arts, Boston, *Richard Newman*, Museum of Fine Arts, Boston, *Olga Palagia*, National and Kapodistrian University of Athens, *Ann Kuttner*, University of Pennsylvania, *Brian Rose*, University of Pennsylvania Museum of Archaeology and Anthropology, and *Kenneth Lapatin*, J. Paul Getty Museum

SESSION 6J: Colloquium
Archaeology of Landscape in Southwestern Anatolia

ORGANIZERS: *Elizabeth Baughan*, University of Richmond, *Rachel Starry*, Bryn Mawr College

Colloquium Overview Statement

This organized colloquium session investigates the relationships between different social, geographical, and cultural landscapes in southwestern Anatolia. Scholars working on Lycia, Pisidia, and neighboring areas will present on topics ranging temporally from the Iron Age through the Roman period, in addition to diachronic studies. These geographical regions, although culturally and topographically distinct in many ways, share numerous commonalities in terms of material culture, trade networks, and imperial histories, with the result that research in one zone is often strikingly relevant to the others. Together, these papers open a dialogue about the ways in which current research in this part of modern Turkey has been shaped by landscape approaches in archaeology, as well as the direction future research in these regions might take given the insights generated by such approaches.

While all of the contributions to this session investigate landscape in some way, several major trends link the papers more closely, particularly the comparison of highland and lowland zones of occupation and the use of a specific category of archaeological data to analyze larger regional connections. One paper explores the relationships between lowland communities and marginalized mountain regions using archaeological survey data from Pisidia. Others investigate similar relationships between the highland zones of the Kibyratis/Kabalia and neighboring regions, including Lycia, through analyses of tomb architecture and urban development. As one paper considers how the distribution of Southwestern Anatolian ware speaks to regional cultural interaction in the Iron Age, another performs a similar analysis on funerary iconography during the period of Achaemenid control. The highland zones of Pisidia and Lycia are also considered in a paper on votive reliefs and shared ritual practices across a regional landscape. Finally, the challenges of working in zones of conflict or landscapes altered by postindustrial crisis are considered, with respect especially to landscape methodologies in use today in Turkey.

The diversity of approaches to landscape represented in this selection of papers, from ceramic and spatial analysis on large scales to detailed studies of funerary iconography, highlights the utility and flexibility offered by landscape archaeology perspectives. The primary contribution of this session to the Annual Meeting is therefore its combination of previously unrelated topics under the umbrella of landscape archaeology, opening new avenues for the fruitful discussion of these issues within southwestern Anatolia and beyond.

Highland vs. Lowlands: Comparing Archaeological Survey Data from the Burdur Plain with the Dereköy Highlands in Pisidia, Southwest Turkey

Ralf Vandam, University of Leuven, *Patrick Willett*, Univeristy at Buffalo - State University of New York at Buffalo, and *Jeroen Poblome*, University of Leuven

Previous archaeological survey research in Pisidia mainly focused on the larger fertile intermountain plain areas (e.g., the Burdur Plain). This research revealed numerous farming settlements from the Neolithic (6500 B.C.E.) onwards and highlighted distinct periods of continuity and collapse in human occupation in these areas. Little is known, however, about sites in other landscape zones such as remote, high altitude locations, which in contrast to plain areas, are traditionally considered to be "marginal," as these are not particularly favorable for permanent habitation. In 2016, the Sagalassos Archaeological Research Project started a new archaeological survey program in the western part of the Taurus Mountains near the villages of Dereköy and Hisar. These new surveys aim to address this knowledge gap by documenting all human activity in these so-called marginal landscapes.

This paper compares the survey outcomes from different landscape zones that make up ancient Pisidia: highlands and lowlands. Based on archaeological survey case studies from the Burdur Plain and the Dereköy highlands, we assess how attested settlement patterns in the highlands compare to those of the lowland communities and to the regional nodes of interaction, such as the ancient town of Sagalassos and its successor settlement at Ağlasun. The comparison of distinctive archaeological datasets from both low- and highland zones allows us to paint a more comprehensive picture of the cultural landscape in southwestern Anatolia.

Art and Landscapes of Empire in Achaemenid Anatolia: Cases from Lycia

Catherine M. Draycott, Durham University

During the period of Persian rule in Anatolia (ca. 550–330 B.C.E.), Empire-style practices (especially in drinking, travelling, and dress, and to some extent administrative record-keeping) appear in different regions to varying degrees; but the impact of the Achaemenid Empire did not include the spread of highly visible urban packaging that one sees with, for example, the Roman Empire. There was, however, an impact on settlement, which has not been as well-investigated as other aspects of the Empire; landscape surveys in Turkey have shown intriguing changes in occupational patterns, with proliferation of tombs in some areas, for example Lydia, while other areas, such as the Phrygian Highlands and the mountain

highlands north of Lycia show apparent denucleation and fewer, although still occurring monumental tombs. Other places, especially along the coast, such as at Xanthos in Lycia, show increases in urbanism. Explanations of these changes include shifts in agricultural land use to pastoralism in the case of rural highland regions, and military strategy in the case of the coastal urban points. The process of linking these observations to broader changes in economy, trade, and connectivity while moving toward a different kind of understanding of Achaemenid impact on social landscapes is only in its nascence.

Within these social landscapes, the distributions and dispositions of tomb monuments are important for understanding social structures, while the expense of construction itself begs important questions about sources of income. The art adorning the inside and outside of these monuments has traditionally been analyzed in relation to the display context, often funerary, or in relation to historical context, often conceived of as narrowly political, but interpretations have not generally integrated landscape and economic histories. This paper emphasizes that "art" and iconography are vital evidence for the orientations, interests and connections of the builders of monuments, and are therefore crucial for any social landscape analysis. More than that, iconographic investigation can raise questions about context that influence further investigations, for instance of contemporary environmental conditions. Beginning with a reflection on a case from further north, this paper focuses on examples of tomb iconography from Lycia, particularly with respect to painted tombs in the highlands and stone built tombs from the coastal towns, demonstrating how attention to iconography is an integral part of grasping different regional dynamics in these two areas and understanding changes to those dynamics over time.

Shifting Landscapes of Influence: Sepulchral Connection and Disconnection of the Kabalis in its Regional Context

Oliver Hülden, Austrian Archaeological Institute, Vienna

The so-called Kabalis of the Archaic and Classical periods, which later became more or less congruent with the region known as the Kibyratis, is a highland area wedged between the more prominent ancient regions of Caria, Lydia, Phrygia, Lycia, and Pisidia. Thus the Kabalis can be seen as an "in-between" region, forming at once an interface and a zone of overlap. During the last decade, Thomas Corsten and I undertook a survey project in this area of southwestern Turkey to investigate its material culture and the external influences of varying intensity that these bordering regions held on the Kabalis at different points in time.

Tombs, particularly their architecture and their contents, are one of the cultural elements of the Kabalis in which these influences are most visible, permitting an analysis of their historical development within a regional landscape context. This paper explores the development of and the foreign impact on the tomb culture of the Kabalis, tracking how changes in the regional sepulchral landscape reflected connection and disconnection to the neighboring regions. During the Archaic period, the Kabalis seems to have been a kind of border province on the southern periphery of the Lydian Empire, although parts of the region probably came under Lycian control in the first half of the fourth century B.C.E. The tombs of the Kabalis

reflect this change in political control: from the seventh to the fifth century B.C.E., the tumulus in its "Lydian" form was the most prominent and most visible tomb type in the Kabalian landscape, with its use not limited to the wealthiest elite. In this period, rock-cut tombs with carved façades were an isolated phenomenon. After the Persian conquest of the Lydian Empire and the Kabalis, there seems to have been continuity in the use of tumuli as regional markers of identity. But in the Late Classical period, there was a remarkable increase in the number of rock-cut façade tombs of "Lycian" type spread all over the Kabalis as obvious reflections of the foreign control. Analysis of the changes in burial practice in the Kabalis during the fourth century B.C.E. demonstrates how sepulchral landscapes can reveal shifting cultural and political connections (and disconnection), especially in zones that are geographically and culturally transitional.

From Mountains to the Sea: Urban Landscape Formation in Lycia and the Kibyratis under Roman Rule
Rachel Starry, Bryn Mawr College

Landscape archaeology provides both a lens through which to consider the broader regional contexts of urban development and a set of theoretical tools for the analysis of urban landscapes over time. As our knowledge about cities in southwestern Anatolia continues to develop through both excavation and survey archaeology, the ability of a landscape perspective to contextualize processes of urban development at a single site within larger regional and supra-regional patterns becomes especially important. This paper, presenting material from my dissertation research, takes two cities as case studies for the diversity of these patterns during the significant period of urban growth that occurred under the Roman Empire: Oinoanda, a highland city located in the mountainous region of the Kibyratis, and Patara, the port city of the Xanthos river valley in western Lycia. The rich body of evidence provided by these two sites permits a comparative analysis of the development of public space and the role of monuments in the urban landscape for these two geographically distinct regions in southwestern Anatolia.

One of the key concepts utilized in landscape archaeology is connectivity. In this paper I use this concept to investigate how the structural elements of the Roman cities in Lycia and the Kibyratis—for example, theaters, temples, arches, or streets—are topographically related and spatially interconnected. I also examine how these structures and spaces agglomerated over time into different urban zones, and because Roman cities were vibrant, inhabited places, I question how, phenomenologically, movement over the pathways connecting these zones inscribed those routes and spaces with meaning. I define an urban zone as a spatial unit (like a neighborhood) comprised not only of individual buildings, complexes, and monuments but also of the ever-changing urban fabric within which these units were situated. This approach allows me to analyze, among other things, where specific types of buildings and spaces appear within the urban landscapes of Oinoanda and Patara as well as how visible and accessible they were in relation to the surrounding urban zones. I argue that this type of comparative spatial analysis reveals a more nuanced picture of urban development for each of these sites than a typical study of the urban plan might suggest. More generally, the

systematic study of local variations in the formation of these Roman cityscapes highlights the importance of a regional landscape focus when exploring questions of urbanism in the culturally diverse regions of southwestern Anatolia.

Landscape of Gods: Rock-Cut Votives in Southwest Anatolia
Tyler Jo Smith, University of Virginia

The identification and study of Hellenistic and Roman rock-cut votive reliefs from southwest Anatolia, most notably the highland regions of Lycia and Pisidia, have long interested scholars and explorers (e.g., George Bean and Louis Robert). Field surveys conducted in these regions beginning in the mid-1980s, including the Balboura Survey (by J.J. Coulton) and the Pisidian Survey (by S. Mitchell), led to a renewed interest in these sculpted representations of gods, goddesses, and heroes, with regard to their cults, iconography, and inscriptions, as well as in terms of their context and distribution. Some of the immortal figures depicted are familiar from the Greco-Roman pantheon, such as the Dioskouroi, Herakles, and Hermes, while others, such as Kakasbos and Artemis "Lagbene," are confined to the area.

Regardless of deity or hero, a distinctive feature of the rock-cut votives is their relation to the landscape. Despite being difficult to reach today, these reliefs, cut directly into bedrock, have always been "on display." Their permanency in the landscape places them in an unusual position archaeologically, especially when considered in relation to nearby natural and manmade features. Not only do these ancient sculptures commemorate the divine cults being worshipped, and celebrate their dedicants (whose names are sometimes inscribed), their general appearance changed very little over an extraordinarily long period of time.

This paper presents the rock-cut votive reliefs of these regions by type and distribution, with particular attention to their positon in the landscape and their function as devotional objects. Although some slight local variations in artistic style can be noted, it is clear that their specific locations were purposefully chosen. For example, many occur near natural water sources; cluster at or around particular man-made features (e.g., tomb, necropolis); and/or face in a uniform cardinal direction (i.e., south). Permanent rock-carvings such as these should never be viewed as belonging to a single place in past time. The cultic functions and ritual practices associated with their ancient (pagan) audiences inevitably evolved, and would have been interpreted in different ways by different people at different times, and indeed over time. Issues such as their visibility, associations, and meanings to post-antique audiences (Christian, Muslim) have not been considered in detail. But, as in other places across the Mediterranean there exists the possibility of the integration of polytheistic and monotheistic cult or, at the very least, the persistence of Greek and Roman symbols and images.

Precarious Landscapes: Politics of Ecology and Archaeological Field Practice
Peri Johnson, University of Illinois at Chicago, and *Ömür Harmanşah*, University of Illinois at Chicago

Landscape archaeologists have long investigated long-term structural changes in settlement landscapes, especially through their collaborations with

geomorphologists and paleoenvironmental scientists. In the last several decades, landscape projects around the world have gradually built a comprehensive record of human-environment relationships in the Holocene, from the beginnings of agriculture and settled life. In the 1990s, landscape archaeology in Turkey became more prevalent when survey projects aligned with the production of cultural heritage inventories. Now, however, survey archaeologists increasingly find themselves working in the ruins of postindustrial landscapes, salvage operations that are dictated by development projects, sites of mining and incommensurable extraction, and on the edges of military conflict. These are the landscapes of the Anthropocene, which tear apart the traditionally idealized and pristine landscapes of the Holocene. What are the challenges to the practice of landscape archaeology brought about by the onset of the Anthropocene, climate change, and environmental crisis? Equally, how should survey archaeologists relate to the political ecology of local communities in such precarious landscapes, when these communities are characterized not by resilience but have become disposable under global capitalism?

Yalburt Yaylası Archaeological Landscape Research Project in west central Turkey has been investigating the politics of settlement in the southern borderlands of the Hittite Empire. Following an ecological perspective, we implemented new field methodologies to address not only the questions of ancient geopolitics but also the challenges of contemporary landscapes. Combining extensive and intensive methods in archaeological survey, critical geomorphology, and environmental research, the Yalburt Project investigates diachronically the dynamics of settlement and ecology in the borderlands. More significantly, the project calls into question the methodological tendencies in survey archaeology to avoid degraded post-industrial landscapes of the Anthropocene, and to romanticize Holocene landscapes as heritage landscapes. The project aims to contribute to the debates on environmental crises and climate change in the humanities and the social sciences through an ecologically comparative perspective on the landscapes of the Holocene (Bronze Age) and the Anthropocene (modernity). As Anna Tsing writes, we are responsible to explore "the knots and pulses of patchiness" in the fragmentary archaeological landscapes, "unencumbered by the simplifications of progress narratives."

SESSION 6K: Colloquium
Life and Death at Ancient Eleon: Reports from the Eastern Boeotia Archaeological Project

ORGANIZERS: *Brendan Burke*, University of Victoria, and *Bryan E. Burns*, Wellesley College

Colloquium Overview Statement

The synergasia of the Eastern Boeotia Archaeological Project (EBAP), between the Canadian Institute in Greece and the Ephorate of Antiquities of Boeotia, began in 2007 with a systematic surface collection survey of fields immediately below a natural outcrop of limestone in the village of Arma about 14 km east of Thebes.

This is the archaeological site we identify as ancient Eleon. It is located at the center of the agricultural plain that extends east from Thebes to the harbor site of Aulis on the Euboean Gulf, and in 2011 we began the first excavations on the low acropolis.

The survey and excavation material suggested significant activity throughout the Late Bronze Age, in the Archaic and Classical periods, and in the medieval periods. Ten years on, we now know much more about ancient Eleon, which is only obliquely referenced by ancient authors (Homer, Pausanias, Strabo, Plutarch). This colloquium will present new research by EBAP team members to offer a representative sample of our results thus far. The site's early Mycenaean period is best characterized by the funerary evidence of the Blue Stone Structure, a rectangular monument which preserves group burials drawn from the community. In settlement levels dating from the Mycenaean Palatial age (LH III A-B), we understand Eleon to be a secondary center within the administrative network centered at Thebes. Activity at the site is strong in the post-palatial period (LH IIIC Early and Middle) as well, with evidence suggesting a shift in network ties to sites along the Euboean Gulf. Our ceramics tell us that there was a period of relative abandonment at the site until the Archaic period, when the site is reused and refashioned with a monumental polygonal wall. It is from this period and the succeeding Classical period that the majority of our evidence for cult activity takes place, including a large number of terracotta figurines.

Our colloquium will present original material from team members working in collaboration with archaeological scientists. We demonstrate that this hitherto unexplored site offers vital evidence for the complexity of eastern Boeotia and an interesting diachronic perspective on life and death in a volatile community.

Emerging Elites at Early Mycenaean Eleon

Brendan Burke, University of Victoria, and *Nicholas Herrmann*, Texas State University

In 2017, the Greek-Canadian Eastern Boeotia Archaeological Project (EBAP) continued its excavation at ancient Eleon in central Greece focused on an unusual funerary enclosure that we call the Blue Stone Structure (BSS). Excavations since 2011 at Eleon have uncovered extensive remains of a Late Helladic III settlement, a late Archaic cult deposit, and traces of a Frankish-period occupation. In the midst of these later remains, the funerary complex of the Shaft Grave period stands remarkably well preserved beneath an artificial clay tumulus.

The Blue Stone Structure (BSS) physically separated select burials from a larger cemetery that likely began in the Middle Helladic period. Although the full perimeter is not yet revealed, the exposed walls are consistently capped with pieces of polished blue limestone that give the building its name. This architecture is currently best seen on the east side, where the building's 17-meter length is marked by large orthostates at each corner. Within this structure isolated walls and cobbled surfaces, preserved at several elevations, seem to serve as markers of the individual tomb shafts below. To date, we have excavated five tombs in the southern area of the BSS. Although the bone preservation is relatively poor, the tombs were used for multiple interments.

The various tombs contained within the BSS provide a range of artifactual and ostoeological evidence. The tomb walls are built of large orthostates and covered by large capstones. Within, commingled skeletal remains have been found, some concentrated in different sections of the tomb, occasionally with well-preserved grave goods. Preliminary analysis suggests both male and female individuals are present with an approximate minimum number of individuals of ten, ranging in age from late adolescents to older adults, and the various ceramics primarily date to the early Late Helladic period. The latest burials are the articulated remains of the final interments. Two tombs, at least, are marked by large vertical stones (stelai/orthostates), which are later incorporated into the north-south wall that served as part of the structural support for the clay-brick tumulus above.

Although there are parallels for communal burials during this period, including other rectangular structures in central Greece, several features distinguish the BSS. The construction was coordinated for individual tombs, as suggested by the shared walls. The preservation of the tumulus through later periods demonstrated respect through the palatial and post-palatial Mycenaean eras, and (probably) in the Archaic period as well.

Locally Stylish: The Terracottas of Eleon
Haley Bertram, University of Cincinnati

The terracotta figurines and protomai from Eleon are one of the most ample bodies of evidence for activity on the acropolis during the Archaic and Classical periods. In the 56 kg assemblage of female terracottas, which range from handmade 6th century types to elaborately coiffed late fifth century types, the Early Classical figurines of the seated type, which exhibit features of the Severe style, predominate. The presence of the seated type is amplified by morphologically comparable standing types and protomai in the assemblage, in both local and occasionally non-local fabrics. The seated type occurs ubiquitously in Boeotia and surrounding regions, but in smaller numbers, and within more varied assemblages. The high frequency of the Severe style across several types at Eleon is therefore indicative of a marked, localized preference within a complex regional pattern of terracotta production and consumption. More generally, the prevalence of early Classical types at Eleon suggests the growth of the Boeotian coroplastic industry before the development of the mold-made "Boeotian idiom" figurines of the mid-5th century. Thus, the terracotta figurines from Eleon provide valuable insights into underrepresented aspects of regional craft production in the early Classical period.

Post-Palatial Faunal Assemblages from Eleon
Matthew Bullock, University of Victoria, and *Yin Lam*, University of Victoria

The excavations at Eleon have produced a rich archaeological faunal assemblage spanning the Neolithic to the Byzantine periods. Initial analysis focused on a Bronze Age faunal sample from an apparent refuse heap in the southwest quadrant of the site. In examining the relative representation of domesticated and wild taxa, the study identified patterns of interest that warrant further investigation. Sheep

and goat dominated this relatively small sample, but the representation of deer was somewhat higher than at contemporaneous sites in this region. Lower utility elements such as metapodials were better represented than meatier portions of the skeleton. A sample of sheep and goat mandible from across the site was used to determine mortality profiles for these two species. The profiles illustrated distinct management strategies for each species, with a high proportion of very young and juvenile goats in contrast to a relative abundance of mature sheep. Overall, the faunal remains from this deposit suggested a varied economy in the post-palatial period, exploiting a wide range of species for both primary and secondary animal products. Analysis is being conducted on faunal remains from other areas of the site in order to place these initial findings in a larger context.

A Smashing Good Time: Two Communal Drinking Deposits from Ancient Eleon
Trevor Van Damme, UCLA

This paper examines two ceramic deposits from Ancient Eleon excavated in the Southwest Sector from 2011–2016. I argue that the ceramic repertoires of both deposits represent drinking assemblages. Far from indicating continuity of practice from the Late Bronze Age through Archaic period, they suggest two functionally similar assemblages employed in different manners.

The first is an LH IIIC Middle deposit consisting of burnt and fragmented drinking equipment, as well as specialized ceramic shapes such as wheelmade bull figures, ring vases, and a composite vase. This deposit was found in a thick stratum that seems to have accumulated gradually over time from repeated acts of deposition. This deposit seems to have been spread largely over exterior spaces, although some links suggest a relationship with the poorly preserved Structure C. The repetitive nature of the material and the appearance of rare shapes associated with cult activities elsewhere, suggests this deposit is ritual in character.

The second deposit consists of a large dump or pit of the sixth century B.C.E. This deposit is largely composed of local Boeotian products, although Attic and Corinthian imports help establish a more precise dating. The homogeneity of this material suggests that it was deposited relatively quickly, perhaps the remains of a single event. In contrast to the earlier LH IIIC Middle material, this deposit may be associated with communal acts of dining of a civic or domestic nature. A contrast is drawn between this deposit and roughly contemporary ceramics deposited in the ramp area at Eleon. While those deposits consist mainly of Boeotian style kylikes and lekanes mixed with terracotta figurines, protomes, and miniature kotyles, the drinking deposit discussed here is of monochrome or incised decorated finewares including a large spouted krater, skyphoi, and kantharoi.

Digital Eleon: Recording the Excavations and Recreating the Experience
Bryan E. Burns, Wellesley College, and *Jordan Tynes*, Wellesley College

Our "Digital Eleon" project has explored methods for 3D modeling of artifacts, landscapes, and the progress of excavations at ancient Eleon. In recent seasons, the excavations—focused on a group of Early Mycenaean tombs (ca. 1600

B.C.E.)—were recorded with aerial drone imagery that enabled the creation of photogrammetric models using Pix4D software. This daily record traced the progress of excavation, enabling analysis of the built environment as recovered at various points of work. Separately, we have used an Artec Spider handheld scanner to create high quality scale models that are easily manipulated and distributed, to enable viewers' consideration of fine details and variable condition. A Virtual Reality environment built in the Unity platform allows viewers to experience the excavation area as a physical space of individual tombs within a larger architectural complex. Within this environment, users can also manipulate 3D models of artifacts set in the place of their discovery.

Investigating the Function of Mycenaean Pottery at Eleon
Bartłomiej Lis, Polish Academy of Science, and *Hans Barnard*, UCLA

The function of particular types of Mycenaean pottery is one of the most understudied aspects of pottery of the Late Bronze Age on the Greek mainland, despite advances in methods like residue analysis. Discussion of function is still dominated by anachronistic views projecting what we know about the function of classical Greek pottery onto the more distant past. Alternatively, function is discussed only in very general terms (drinking, eating, storage, and transport).

The site of Eleon, with its rich ceramic assemblage and a number of well-preserved contexts, provides ideal circumstances for a more in-depth study of function. This paper presents preliminary results of research on the Late Bronze Age pottery since 2012, and combines several methods of study including use-wear and organic residue analyses as well as a careful examination of each vessels' associations in particular contexts and stratigraphic deposits.

An Archaic/Classical Cultic Assemblage Found on the Ramped Entryway into the Site of Eleon in Boeotia
Susan Lupack, Macquarie University

The Eastern Boeotia Archaeological Project has been conducting an excavation at the site of Eleon in Boeotia from 2011 to the present as a synergasia currently directed by Brendan Burke, Bryan Burns, and Alexandra Charami under the auspices of the Canadian Institute in Greece and the Ephorate of Prehistoric and Classical Antiquities of Thebes.

Eleon has long been known for the Archaic polygonal masonry wall that runs along the site's eastern edge. Excavation has revealed a ramped entryway that passes through this wall and up into the site. The material found on its surface dates from the sixth to the fourth century B.C.E. The remarkable thing about this assemblage is that much of it derives from an as-yet unidentified cultic context. Approximately 550 figurines were found, including Archaic plank and later mold-made types. A terracotta plaque bearing a Gorgon's head and a bronze phiale were also revealed. Complementing these artifacts are several different types of ceramic religious vessels including phiales, an inscribed kantharos, Corinthian miniatures, Boeotian kylix wares, and a special object—a model polos decorated with red-painted seeds.

The most common vessels in the assemblage are the Corinthian miniatures. Several loci contained 0.50–1.00 kg of fragments. The shapes represented are a jug, an exaleiptron, kalathiskoi, kantharoi, a phiale, and, most commonly, kotyles decorated in Late Archaic style. Boeotian kylix ware bowls were also abundant. One sealed deposit contained several examples of Ure's Class I (550–530 B.C.E.) with their distinguishing bands of triangles at their bases. Above this deposit were vessels belonging to Ure's Class II (530–500 B.C.E.), which display colorful horizontal and wavy bands on a white slip. One such bowl had a curved cutting in its rim—perhaps for pouring libations. The Boeotian kylix vessels were likely used as local counterparts to the Corinthian miniatures. The decorative scheme of the model polos is the same as that used for the Class II Boeotian vessels, and therefore it can also be dated to the Late Archaic period. Its presence at Eleon correlates well with the idea that it was a female deity to whom the figurines were dedicated.

The majority of the votive vessels date to the Late Archaic period, which contrasts with the figurines, most of which date to the mid-fifth century. Thus, the type of offering favored by the worshippers appears to have changed. How this material came to be on the ramp is also considered.

SESSION 7A: Joint AIA/SCS Colloquium
Coins and Trade: The Evidence of Long-Distance Exchange

ORGANIZER: *Irene Soto*, University of Basel, Switzerland

Colloquium Overview Statement
This panel explores the role of ancient coinage within trade networks in the eastern Mediterranean and related areas between the sixth century B.C.E. to the seventh century C.E. While often assumed to play an important role in long distance trade, the role of coinage in these networks is not always clear. Nor it is always clear what the find of coins far from "home" represent. Do these finds necessarily represent trade connections or other (non-?) economic links? Imperial powers, for example, might have shifted coinage to various parts of the empire through the mechanism of taxation and state payments, while traders themselves might have avoided using large volumes of coins in long distance trade to avoid the dangers of loss. This panel therefore seeks to explore a number of interrelated questions. To what extent does the frequency of coin finds in "foreign" territories shed light on larger issues of economic integration between separate regions? While studies on the circulation patterns of particular issues are well known in numismatic scholarship, to what extent are they indicative of commercial transactions? How can historians adequately use coins as proxies of trade? To what extent can coins elucidate ancient trade routes?

The relationship between coinage and trade was popularized in the field of Roman economy when Keith Hopkins introduced a theoretical model that views the relationship between coinage and trade through the lens of taxation. Hopkins concluded that the requisition of taxation in money acted as additional incentive for trade and lead to higher economic integration within the Roman Empire (Hopkins 1980). Since then although long-distance exchange has been at the heart

of scholarship on the nature of the ancient economy (Horden and Purcell 2000; McCormick 2002), numismatic analysis has played a small role in these seminal historical works.

This panel also seeks to connect different disciplines with numismatics in order to investigate more thoroughly the role of coins in trade. The papers thus look beyond the numismatic data to include evidence from papyrological and epigraphic texts, weights, and archaeological materials such as ceramics. This large contextualization of the numismatic evidence allows greater nuancing of the coins finds. Price data, for example, helps to shed light on the scale and frequency of transactions that may point to the quantity of coinage being employed. Relative price integration may be considered as well pointing to increased monetization and homogeneity of coinage over wider regions.

The subject matters in the papers in this panel have a wide chronological and methodological span. The first paper deals with the influence of the Sicilian silver standard in the development of trade in the Tyrrhenian Sea during the sixth century B.C.E.. The role of religious institutions and their influence on trade and the diffusion of coinage is highlighted in Paper #2 on Indo-Roman trade during the Imperial period (first to third centuries CE) and in Paper #3 on Panhellenic sanctuaries in third-century B.C.E. Greece. Paper #4 analyzes the movement of Roman Imperial Coinage from East to West in his case studies of analyzed coin finds in Britain and the Germanic provinces. Finally, Papers #5 and #6 analyze the large numismatic evidence of small-value bronze currency in Late Antique Syria and Egypt (fourth to seventh centuries CE), respectively. As evidenced by the papers and their breadth, this panel aims at exploring the advantages and challenges of using coinage to elucidate long-distance trade within the Graeco-Roman world and beyond.

DISCUSSANTS: *Lucia Carbone*, American Numismatic Society, and *Gilles Bransbourg*, American Numismatic Society

Small Change from a Big Island: The Spread of the Sicilian Silver Litra Standard and its Implications for the Tyrrhenian Trade
Giuseppe Castellano, The University of Texas at Austin

The Iron Age indigeni of Sicily used bronze objects as currency, weighed against a pound that the Greeks called the litra. With the introduction of Greek-style coinage in 550 B.C.E., the litra took on new significance as a small silver coin equivalent to the native bronze measure. Though the first litrai were minted at Greek cities, indigenous Sicilians were minting their own by the mid-fifth century. Initially bound to the native bronze standard, as at Himera, the litra was soon assimilated into the Attic standard at Syracuse as one-fifth of a drachm. These coins allowed for conversion between native bronze and imported silver, suggesting significant contact and trade between native Italic peoples, Greeks, and hybrid populations.

Though it is often said that small coinage did not travel, this is untrue of the silver litra. A Syracusan litra of the mid-fifth century BC was found at Morgantina, and another bears a countermark of a selinon leaf, suggesting that it traveled to

Selinus and was accepted as good currency. Two mid-fifth century hoards, at Agrigentum and Messina, contained almost exclusively small silver from all over Sicily, including litrai. That such small coins traveled the breadth of the island, from Eryx to Syracuse, suggests widespread acceptance of the silver litra. By the late fifth century the litra had become the preferred standard, supplanting traditional Greek fractions like the obol.

Though the litrai themselves did not travel beyond Sicily, the standard did. The earliest Etruscan coinage (475–400 B.C.E.) of Populonia and Vulci was on the same Chalcidian standard used in several Sicilian cities, including Himera. Populonia, however, soon switched to the Attic-Syracusan standard, despite the absence of Sicilian litrai in Etruria, and despite the circulation of Greek coins on the Attic standard (as seen in the Pyrgi hoard). The coins of the Populonian "First Metus" issue of 450–400 B.C.E. were on the Attic-Syracusan standard, all with marks of value in litrai. Though these coins enjoyed limited circulation, a notable exception is the 10-litra silver Populonian "Gorgoneion" from a 450–425 B.C.E. context at Prestino, in Lombardy. This site, in the far northern province of Como, was at the fringe of Etruscan influence and was a possible consumer of Populonian metalwork. This find provides rare archaeological evidence for early coin circulation in non-Greek Italy, perhaps related to the metal trade.

Some scholars have hypothesized that these first Etruscan coins were minted by resident Greeks, or perhaps with Greeks in mind. Whatever the case may be, the Etruscan adoption of the Sicilian litra standard—possibly in the aftermath of their defeat by the Greeks at Cumae in 474 B.C.E.—may shed light on the nature of Greco-Italic relations. Perhaps the Greeks pushed the litra standard as an "international" currency in the Tyrrhenian Sea, possibly in recognition of the native preference for a currency based on the native standard. It may also speak to Etruscan agency and the influence of indigenous tradition. In any case, such an "international" currency would have greatly facilitated the Tyrrhenian trade.

Panhellenic Sanctuaries and Monetary Reform: The Spread of the Reduced Aiginetan Standard Reconsidered

Ruben Post, University of Pennsylvania

One of the most important monetary systems of Classical Greece was so-called Aiginetan standard silver coinage, struck by numerous states, especially in central and southern Greece, on a unique weight system. By the early second century B.C.E. however, in the same regions in which Aiginetan coinage had predominated we find in use almost exclusively silver denominations that are similar in type but about 20% lighter. This paper addresses the role of Panhellenic sanctuaries, in particular Olympia and Epidauros, in the transition from full-weight Aiginetan coinage to this new reduced-weight standard, referred to as the reduced Aiginetan standard. While the topic of the nature and spread of the reduced Aiginetan standard has been addressed in scholarship, no work has systematically analyzed this monetary change in order to understand how or why it occurred.

In my paper I first carry out a metrological analysis of the silver coinages of central and southern Greece in the third century B.C.E., concluding that the earliest mints to produce reduced Aiginetan coinage were those of Elis and Epidauros

around 250 B.C.E. These cities also happened to control some of the most prominent sanctuaries in the Greek world (the sanctuary of Zeus at Olympia and that of Asklepios at Epidauros, respectively), which attracted visitors from all over the Greek world. Like all such large Greek religious centres, Olympia and Epidauros were major foci of economic activity for pilgrims and merchants travelling from far and wide. As such, these Panhellenic sanctuaries could exert considerable monetary influence beyond their bounds, a fact demonstrated clearly by two pieces of epigraphical evidence from Delphi. Firstly, a dossier relating to the introduction of so-called Amphiktionic coinage in 337/6-336/5 B.C.E. shows a deliberate effort to modify the older Aiginetan weight standard that ultimately proved short lived. Secondly, an inscription of the late second century B.C.E. relates that the Delphic Amphiktiony attempted to fix exchange rates between different monetary standards throughout Greece. Both of these episodes illustrate attempts by a Panhellenic sanctuary to utilize its authority to manipulate the values of currencies across the Greek world.

I argue that, in light of this evidence, Elis and Epidauros recognized ca. 250 B.C.E. the profit that could be gained from forcing visitors to exchange their heavier foreign currency for lighter local coinage at a 1:1 exchange rate. In the decades that followed, the Achaian and Boiotian Leagues themselves adopted this new standard, making it by ca. 200 B.C.E. one of the most important currency systems in the Aegean. Thus, these sanctuaries were on the cutting edge of numismatic developments, and were likely looked to by neighboring states when deciding their own numismatic policy. Epidaurian and Elean coins are rarely found far from Elis or Epidauros, however, indicating that such mechanisms of monetary influence might not necessarily be noticeable in circulation patterns. This study highlights the importance of studying metrology in addition to circulation patterns in order to understand the interplay between different currency systems in relation to nodes of economic activity like major sanctuaries.

Funds, Fashion, and Faith: the Many Lives of Roman Coins in Indo-Roman Trade
Jeremy Simmons, Columbia University

Could one ancient currency become an integral feature in other monetary systems through trade, or have roles in regions that do not recognize it as money? This paper investigates the functions—both monetary and otherwise—of Roman imperial coinage once traded in the Indian subcontinent in the early centuries C.E. The use of Roman coins, specifically silver and gold denominations, in the trade with India is well-attested in various literary sources (e.g. the Periplus Maris Erythraei) and the thousands of Roman coins uncovered throughout the subcontinent. In fact, these finds have long been cited as evidence for the ebb-and-flow of transoceanic commerce, if not a Roman trade deficit with India. We are quite familiar with the Roman viewpoint of the export of their coinage beyond the boundaries of empire, which is defined in financial terms (e.g. Pliny the Elder Nat. Hist. 6.26.101, 12.41.84; Tacitus Ann. 3.53), but there is little consideration in Roman sources of how these coins function beyond the boundaries of empire.

With the Roman world left behind, Roman coinage would hypothetically lose the administrative apparatus and the market necessary to support its use as

money. The Indian subcontinent certainly had its own coinage traditions, whose denominational schemes differed from the tri-metallic Roman system; this is not to mention that large portions of the subcontinent were only partially-monetized, such as in the Tamil chiefdoms of the south. And yet, the high concentration of coins finds in less-monetized regions of southern India speak to their pervasive use there in different capacities from money. While the debates on the fungible nature of money vis-à-vis coinage go beyond the scope of this panel, the fundamental (but not revolutionary) result of these considerations is quite relevant—while Roman coinage could serve as a form of money in the Roman world, it was not always necessarily money beyond it.

It is precisely the qualities that marked precious metal coinage as a particularly effective form of money in the Mediterranean world—its precious metal content and formal design, enabling a non-perishable and transportable store of wealth—that could have enabled non-monetary usage of Roman coins once in India: as prestige objects, forms of personal adornment, and votive offerings. In these capacities, Roman coinage is equated to other commodities in terms of value or function and is reserved for specific social conventions, such as gift-exchange and religious dedication. Often, the physical manipulation of these objects marks or even enables their newfound functions, such as piercing or adding loops to coins for necklaces, while imitative production of similar products in India with these adaptations speak to the demand for Roman coins for these purposes. And yet, since the lifespan of a precious metal coin is far longer than that of other commodities, it can change function as it moves between different individuals and regions of the subcontinent, as indicated by attempts to reverse certain manipulations (e.g. filling the holes of pierced coins). Roman coins could also operate alongside indigenous currencies in certain monetized regions, but once more, they seem to be limited to specific subsets of the economy (e.g. for deposit with bankers, endowments at religious sites, etc.). The multivalence of these coins—as both a form of money and an object—at various stages of their long lives in India and the limitations to their use there should accordingly inform how we discuss the larger patterns of Indo-Roman trade.

Roman Coins and Long-Distance Movement. East to West
Benjamin Hellings, Yale University Art Gallery

The production of Roman Imperial Coinage at a number of mints throughout the Empire provides an excellent opportunity to investigate the extent to which coinage might have moved across the Empire. Roman Provincial Coinage, local coinage that was primarily restricted to Eastern mints and users, also provides a useful lens to assess long-distance connections between remote areas of the Empire and beyond (Howgego 1994). The similarity and differences of coin find profiles between various provinces have been used to make cases arguing for an integrated or regionalized economic system of the Empire (Duncan-Jones 1994; Hopkins 1980; Howgego 1992).

This paper presents several case studies where Roman coins struck in the East travelled across the Roman Empire to the Roman northwest—to Britain and the Germanic provinces as well as to barbaricum (e.g. Howgego 1996; Duncan-Jones

2001; Hellings 2016). Economic and non-economic explanations for the connections between East and West, as demonstrated through coin finds, are sought and explored in the paper. Each case study points towards a different facet of long-distance movement of coins and the various ways that coins stuck in the Eastern half of the Empire can and cannot elucidate long-distance exchange networks.

The economic explanations put forward argue that non-archaeological evidence, such as services and manpower, formed part of this long-distance exchange network and is an important feature often ignored. It will tentatively be argued that, during particular periods in time, ancient cultural considerations and attitudes may also have affected the movement of coins, thereby placing limits the ability of numismatic evidence to answer some of the questions addressed by the panel.

Inter-Provincial Trade in Late Antique Syria from Excavation Coins
Jane Sancinito, University of Pennsylvania

The publication of coin finds from Syria has provided an opportunity to investigate the economic world of the province in the late antique and early medieval periods. However, the field is divided into extremes with works such as Wickham's Framing the Early Middle Ages providing a synthetic view of the economy, drawing from a large number of diverse sources, while numismatic works offer nuanced detail about minting and circulation at local and provincial levels, and often limiting themselves to the interpretation of single finds. The two sides of scholarly inquiry have rarely been put into productive dialogue, with coinage frequently relegated to the sidelines in treatments of the ancient economy as a whole.

In this paper, using the tools developed by the FLAME project (Framing the Late Antique and Early Medieval Economy), I examine more than twenty well-published excavations in order to provide an in-depth analysis of coin circulation in Syria during the late Roman and early Byzantine periods. The finds range from the large cities of Antioch, Nessana, and Tiberias, to the Memorial of Moses on Mt. Nebo and the villages of Dehes and Capernaum, and include the finds of the Limes Arabicus Project, which combined both survey and excavation over a large area in the Transjordan region.

The data consists of more than 10,000, primarily bronze, coins, struck between the reign of Constantine and the Islamic conquest. In this paper, I look particularly at coins found within the province struck at non-Syrian mints to examine inter-provincial coin circulation as a potential proxy for long-distance trade. Since bronze coins are primarily small change, they provide a unique opportunity to trace objects that traditionally have only a small circulation radius. Because it has been assumed that they would be left at home, they can be used as a means to test interconnectedness in the monetary economy. Preliminary analysis of the data shows strong ties between Constantinople and Syria throughout the period, highlights that monetary production was highly irregular across the centuries under consideration, and shows that there was substantial variation in circulation patterns within the borders of the province, with southern sites showing greater ties to Egypt than to Asia Minor.

I will argue that, even with these preliminary findings, it will be possible to harmonize large-scale interpretations of the economy with the small-scale data of

individual coin finds. Through the addition of data from hoards and stray finds, as well as comparison with the findings of others in the FLAME project, each treating a different region, it will be possible to reconstruct the monetary economy of the late antique world with tools that can analyze every scale, micro to macro, and integrate the evidence of numismatics into our synthetic conceptions of the economy of the late antique Mediterranean.

Trade and Economic Integration in Fourth Century C.E. Egypt: The Evidence from Coins and Ceramics

Irene Soto, University of Basel, Switzerland

This paper analyses the hoard evidence from fourth century C.E. Egypt in order to asses the degree of economic integration between the province and other territories within and beyond the Roman Empire. This analysis also aims to highlight the role of the city of Alexandria in long-distance exchange. Alexandria not only housed the only official mint in Egypt, but it also acted as one of the major redistributive centers for goods being traded within Egypt and between the Roman Empire, India and the East, and Sub-Saharan Africa. Therefore the context of the city of Alexandria in Egypt is a strong case study for the analysis of the role of coins in ancient trade.

Graeco-Roman Egyptian monetary history is traditionally framed by two major events: the first is the official introduction of currency into Egypt by Ptolemy I, son of Lagos in 323 B.C.E. The second is the currency reform instituted by Diocletian throughout the Empire in 296 C.E., which likely began in Egypt in 297/298 C.E. Diocletian's reform ended the Egyptian closed currency system, under which it had functioned for the previous 600 years, and unified the Empire monetarily under one set of coinages. Previous to this monetary reform, the only official coinage allowed to circulate were coins struck in the mint at Alexandria, the sole official mint of the Egyptian province. Therefore the fourth century C.E. is the first time in Egypt's monetary history in which coins minted outside of the province circulated freely and legally.

The numismatic evidence will also be paired with imported ceramics, in order to further nuance the connections between territories that are highlighted by the mints represented in the hoard evidence from Egypt. Therefore the mints represented in hoards found in Egypt speak not only of the communication and commercial transactions with other regions, but of the activity of the mint of Alexandria in relation to other mints. Preliminary analyses have shown, for example, a significant percentage of bronze coins from Antioch present alongside Alexandrian coinage (roughly 25% of identified mints). The proximity of the two cities is undoubtedly a factor but one must wonder the commercial avenues through which these small-value bronze currencies travel such lengths, and alongside which products are the coins traveling. This type of integrative analysis is particularly illuminating for the development of trade networks in the ancient world. The archaeological and numismatic evidence of Egypt, always paired with papyrological evidence when available, has the potential to show the complexity and strength of Egyptian trading economy during the fourth century C.E.

SESSION 7B: Colloquium
Archaeology from a Distance: Dura-Europos in the New Millennium

ORGANIZER: *Jennifer A. Baird*, Birkbeck College, University of London, and *Lisa Brody*, Yale University Art Gallery

Colloquium Overview Statement

Identified almost a century ago on the Syrian Euphrates, Dura-Europos is one of the most extensively excavated urban sites of the Arsacid and Roman Near East. While the site has been heavily looted during the current conflict in Syria, there remains tremendous potential for new research and analysis of the site and its archaeology, including that which builds on the archives and objects from Dura held in the collections of the Yale University Art Gallery.

This session will bring together international scholars working on the multi-cultural heritage of Dura-Europos and addresses a range of questions including: What is the status of Dura in the 21st century? How might Dura inform our understanding of the Roman Empire and its interaction with eastern cultures? How can the Dura archives and collection at Yale facilitate reinterpretation of existing theories and assumptions regarding culture in the Roman East? What are the potentials and pitfalls of working with 'legacy' data, especially when the site is no longer accessible to Western scholars?

Within the framework of this session, papers reference a range of evidence in seeking answers those questions. A reconsideration of deposits in Dura's famed synagogue opens new avenues for the exploration of Jewish life in Roman Syria. Religious space is also considered in relation to the Roman military occupation of the site in the third century, highlighting the complex interactions between soldiers and civilians at Dura. Another presentation looks at a previously unstudied group at Dura: the 'extended military community'. Our understanding of military and religious life at the site continues to be enhanced by new studies of the Mithraeum. Other papers bring together legacy data and recent excavations at the site to examine the Roman military base and the Roman marketplace in the agora. These projects consider various forms of data, from new excavation and survey to study of archival data, from analysis of works of art and artifacts to assessments of parchments and papyri discovered at the site.

Opening Doors to Jewish Life in Syrian Dura Europos
Karen Stern, Brooklyn College CUNY

Rome's position in Syrian Dura Europos dominates many analyses of its archaeological remains. Reasons for this appear justifiable. Widespread discoveries of Roman arms, weapons, and coinage, and of domestic quarters converted into military barracks, demonstrate some of the many ways that the Roman military had pervaded and transformed local life in the years before the Sassanians destroyed it (c. 255/237 C.E.). Scholars interested in Jewish, as well as non-Jewish populations in Dura, often equally defer to Rome's local prominence. Recent studies of the

Dura synagogue, among other structures from the town, correspondingly emphasize links between its constituents, the Roman military apparatus (Rosenfeld and Potchebutzky 2009), and degrees to which the building's construction and decoration reflect life at the eastern limes of the Roman Empire (Fine 2010).

This paper differently situates the archaeological remains of the Dura synagogue in the world of the Mesopotamian and Persian West in order to gain greater insights into the cultural horizons of those who built, used, and visited the building. It argues that by examining some lesser-noted features of the synagogue and drawing greater attention their local, Syrian, Mesopotamian, and Parthian antecedents, scholars might gain a clearer and fuller picture of Dura's culture and of Jews' places within it. Instead of emphasizing the synagogue's monumental architecture, painted decoration, and dedicatory inscriptions, which have historically garnered the most attention, this paper considers distinct vestiges of the building's use—here manifested in the forms of graffiti, dipinti, and burials of objects. Attention to the location and contents of associated writings, drawings, and deposits, I suggest, yields significant information about how visitors moved through and responded to space in the building, and manipulated and reshaped its walls, doorways, and floors. Local comparisons for these activities reveal dynamic and otherwise unidentified information about devotional behaviors once conducted by local Jews, Christians, and pagans. Working outward from the synagogue evidence, this paper ultimately suggests that many Durenes—including Jews as well as their neighbors— conducted daily devotional acts, in common ways, which fully embodied and responded to their local, Mesopotamian, and Persian political, economic, social, and cultic orbits.

Behind the Wall: A City That Prays Together

Joe Bonni, University of Chicago

After Roman soldiers began establishing a permanent presence in Europos during the latter half of the second century, they eventually walled off and claimed the northern quarter of the city as a military camp, a small fortified village within the city internally walled off from the rest of the town. Several historians have contributed to an over-arching narrative that the military quarter in Europos was strongly segregated from the city at large, even going so far as to compare the military camp at Europos to sociologist, Erving Goffman's notion of a "Total Institution," a term Goffman used to describe certain health or penal institutions and the various qualities that resulted in a "barrier to social intercourse with the outside that is often built right into the physical plant: locked doors, high walls, barbed wire, cliffs and water, open terrain, and so forth."

This paper questions that narrative through an examination of the use of religious spaces "behind the wall". Via a reexamination of unpublished maps and papers at Yale's archives, an engagement with recent research on Mithras and Iupiter Dolichenus as well as incorporating modern archaeological excavations (The MFSED, Baird, James, Bossard-Couronne) and new interpretations of Yale's excavations by historians (Edwell), evidence will be presented showing that the use of temples within the military quarter was hardly exclusively military even after the Roman army finished their walling off of the quarter in the second decade

of the third century. Additionally evidence will be presented showing that even some of the civic buildings claimed to be exclusively military in their use by previous researchers (e.g The Palace of the Dux Ripae) fail to hold up to such claims under more rigorous examination of the architecture, dating and inscriptions in these various buildings showing definitively that interaction between civilians and soldiers behind the military camp's wall was far more complex than earlier interpretations have suggested.

The Roman Military at Dura-Europos: Garrison of Soldiers or 'Extended Military Community'?

Simon James, University of Leicester

Until recently the Roman military was thought of solely in terms of the soldiers themselves, except for occasional reference to 'sutlers and prostitutes' following them on campaign, and presumed to live outside camp ramparts. Now we are aware that contingents of soldiers need to be considered together with apparently routine accompaniments of dependants, both male and female, servile and free, from infants to the elderly. These took their living and identities from bonds with the soldiers, together with whom they constituted what we may call 'extended military communities' or 'garrison communities'.

Soldiers' dependants are to be glimpsed in Roman histories and law codes, in papyri from Egypt, on military tombstones from the frontiers, and in women's and children's shoes in barrack blocks at Vindolanda near Hadrian's wall. But at many sites, while such dependants likely created much of the military archaeological record, they can be hard to distinguish directly. Recent research on this area has mostly been conducted on metropolitan sources and Northern European archaeological sites. However, one of our best windows on Roman military life is in the East, at the city of Dura-Europos, overlooking the Syrian Euphrates.

Here a third-century garrison occupied a literal quarter of this Greco-Syrian city—a rare excavated example of an urban Roman military base. What was the demographic composition of the imperial military presence? The excavators considered it primarily to comprise soldiers, incidentally accompanied by 'the usual influx of hucksters and hangers-on of both sexes, selling food, crockery, uniform equipment of all sorts and every kind of entertainment,' albeit with some soldiers' families and settlement of military veterans (Welles 1951, 271)—a motley additional crowd of incomers, of indeterminate size, mostly loosely associated with the soldiers.

In the light of recent scholarship, it is time to review the evidence, to consider whether Dura's soldiers formed the core of a more integrated 'extended military community' of the kind now thought common at garrison stations elsewhere in the empire. Recent work on the converted civil housing and 'shanty barracks' of the base area, and on the portable material culture from the site, offers important new clues to add to direct glimpses of soldiers' dependants in Dura's famous corpus of texts and iconography. Together, these suggest that Welles and his colleagues failed to recognise a significant component of the already-complex cultural make-up of this modest but remarkable ancient city.

Reassessing Old Excavations: the 'Roman Market' in Dura-Europos' Agora
Gaelle Coqueugniot, Université Paris-Nanterre

Following its discovery in 1920, Dura-Europos became one of the best known and most widely excavated sites of the Graeco-Roman Near-East. While access to the site is now impossible, the excavations' archives at Yale University Art Gallery and at the Ecole normale supérieure in Paris give us potential for continuing research on the site.

This paper focuses on the building identified as a 'Roman market' during its excavations in 1931. This building occupied the northern half of block G6, in the center of the city. It consisted of a large open courtyard lined up with colonnades on the northern and eastern sides, with shops opening on three sides. The courtyard could be accessed through four gated entrances, two larger gates on the eastern side, offering a direct access from one of Dura's most important roads, Street F, and two smaller ones on the western side, opening on Streets 2 and E. The construction of this complex belongs to the Roman occupation of the site and may be seen as part of the same program as the implementation of colonnades along "Market Street" and Street H in the agora, which has been considered as a clear mark of the site's Romanization in the early third century C.E.

Despite its distinctive features, the building was largely neglected in the agora preliminary reports of excavations and its exploration was left incomplete, with parts of the courtyard staying untouched, as well as the southern half of block G6. Preliminary fieldwork was carried out in 2009 in the Roman market's courtyard and in front of one of its eastern entrances, but it was left incomplete when the expedition was adjourned. Despite the interruption of fieldwork, it is still possible to use data collected in the 1930s and in the 2000s and preserved in New Haven and in Paris — notebooks, drawings and photos — and confront them to new discoveries on market buildings around the Roman empire. This allows us to propose a new interpretation on the architectural development of this building, its possible functions, and its importance in the life of Roman Dura-Europos.

Extreme Survivors. Papyrological and Textual Problems in the Latin Papyri from Dura Europos
Giulio Iovine, Università di Napoli Federico II

The Latin documentary papyri housed in the Beinecke Library at Yale University are a sore spot for scholarship. One the one hand, they constitute a unique finding, inasmuch as they all come from the archive of a Roman cohors (the XX Palmyrenorum) stationing at Dura Europos, on the banks of the Euphrates, between 200 and 260 C.E. There is nothing of the sort in extant documents from Roman army; nothing so abundant (more than 90 papyri) and so cohesive in origin and purpose. On the other hand, most of them are conspicuously fragmentary, ridden with holes and spots, and shriveled—not easily allowing the researcher into their real meaning. Three subsequent editors (Gilliam, Fink, and Marichal) have fought against these difficulties; they have produced sometimes very different texts; attempted at replacing and re-joining many tiny scraps, invariably altering the record numbers of the fragments (fr. a becoming h, fr. k becoming c+g and the

like) and sometimes puzzling the reader. The last overall edition dates back to 1976 and was done on photographs; a further survey made at the library in the Nineties re-framed all papyri, had several fragments resurface from the stacks, and once again changed many record numbers, adding to the confusion.

This paper originates within the framework of ERC project PLATINUM, devoted to Latin texts on papyri. It will offer some preliminary result of an ongoing personal inspection, reassessment and re-edition of the Latin military papyri from Dura Europos. It will argue for a total make-over of fragments such as P.Dura 60, 61 or 68, whose text must be re-written; it will deal with issues concerning newly found fragments (P.Dura 62), which are in need of a brand new edition; it will inquire into wormholes and damages which could help re-joining or replacing fragments such as P.Dura 66 yy and aaa, 76, 77. These textual reassessments will be the basis for providing new insights and new perspectives in the history of everyday military life in this Roman outpost on the Eastern border of the Empire.

The Gendered use of Sacred Space in Dura-Europos
Sanne Klaver, University of Amsterdam

In the proposed paper I will address how the temples of Dura-Europos were used to negotiate social relationships, in particular with regard to gender relations. Space and gender are important themes in women's studies, although often these studies focus on the private and domestic spheres. As it turns out, religious space can also be studied to understand how power, social mobility, and religious roles were negotiated (Gilchrist 1994). In Dura-Europos, three so-called salles aux gradins with engraved women's names on the seats are found in temples dedicated to the female deities Artemis, Atargatis and Azzanathkona. These stepped structures for seating were built up against the short walls of the rooms and flank a small open space. These salles aux gradins with engraved female names are the only known cases in Syria. In Dura-Europos we find two more salles aux gradins: one with no names inscribed on the seats, and the other, a sanctuary unit dedicated to Atargatis in the temple of Adonis, inscribed with male names.

The inscriptions in the salles aux gradins provide us with a unique opportunity to study the religious participation of women at Dura-Europos. In addition, by studying their names and family affiliations we can reconstruct their social mobility and relations, as it turns out, elite families often married amongst each other or even within the family. Furthermore, women from elite families more often held Semitic names, whereas men held Graeco-Macedonian names such as Seleukos from which we may conclude that 'Greekness' was especially important for men. Finally, comparing the inscriptions from the temples of Artemis, Atargatis and Azzanathkona with the inscriptions from the salle aux gradins in the temple of Adonis will allow us to understand gender roles in the sacred space of Dura-Europos in a new way. This in turn will allow for a better understanding of the social and religious life at Dura-Europos, and make a valuable methodological contribution to women's studies in the Graeco-Roman world.

The Mithraeum of Dura-Europos: Glocalizing a Roman Cult
Lucinda Dirven, University of Amsterdam, and *Matthew McCarty*, University of British Columbia

Upon its discovery, the mithraeum at Dura-Europos was hailed as a potential link between Persian cult and the form of Mithras-worship practiced across the Roman Empire. Yet as preliminary analysis began, its excavators and their collaborators felt the disappointment of discovering that the architecture, iconography, and assemblage from the mithraeum was instead remarkably similar to examples from the Rhine-Danube region. In conjunction with a project led by the authors that is re-analyzing the archived material and newly-restored mithraeum paintings in order to prepare the final excavation report of the mithraeum, this paper will revisit the ways in which the cult community at Dura was situated within its micro-context (Dura) and within the empire more broadly.

Indeed, questions of how to situate the "local" against the "global" have come to dominate Roman provincial studies more broadly, and the Dura mithraeum provides a useful case study of how widespread cult practices and knowledge circulated and were transformed to suit smaller groups around the empire. The site remains one of the most complete assemblages of iconography and archaeological evidence from a Roman mithraeum, and allows us to combine a close study of ritual practice—attested especially in a set of previously undiscussed ritual deposits—with detailed examination of how the wall paintings and reliefs reframe the Mithras-myth and central tenets of the cult with particularly local inflections. We will argue that the mithraeum at Dura-Europos represents a clear case of "glocalization," the explicit transformation of a global product into something that is more attractive for consumption in a particular market. In this case, while the inaugural deposits of the sanctuary speak explicitly to a shared network of ritual craft-knowledge that stretches from Syria to Dacia to Britain, the paintings and cult reliefs demonstrate how that knowledge might—in the negotiation between artisans and commissioners—be cast in terms familiar and appropriate to a local social organization: in this case, a group dominated by auxiliary soldiers.

SESSION 7C: Colloquium
Banal Objects with Divine Power? Tokens, Deities, and Cult in the Ancient Mediterranean

ORGANIZERS: *Clare Rowan*, University of Warwick, and *Antonino Crisà* , University of Warwick

Colloquium Overview Statement

Amongst the last objects excavated from the Syrian city of Palmyra before the rise of ISIS were Palmyrene 'tesserae', clay tokens that functioned as entrance tickets to temple banquets in the city. These latest finds (including 125 tokens of the same type within a single jar in the temple of Arsu) reveal the powerful role played by these unassuming objects: they controlled access to cultic space at particular moments in time, formed part of the materiality of religious festivals, and

contributed to the formation of different group identities within the city through the imagery they carried.

While the Palmyrene tokens are relatively well known, the tokens of other regions (made of differing materials) found across the ancient Mediterranean have received relatively little attention. No supra-regional study of these objects has ever been performed, but such research is key to better understanding the material. Indeed, the initial results of such a study suggest that the representation of deities and religious instruments is a common feature on tokens throughout the ancient Mediterranean world, providing important context for the Palmyrene banqueting 'tesserae'. This colloquium session identifies this phenomenon and explores why deities might frequently appear on ancient tokens, the possible role of tokens in cultic practice, and how divine imagery contributed to the formation of communities at different levels. In doing so the session will provide new interpretations of old finds, and will begin developing a disciplinary approach to the interpretation of this category of object.

'Demetrius Poliorcetes' Tokens in Athens' traces the shift from the well-known civic function (and imagery) of tokens in classical Athens to the cultic imagery that becomes characteristic of Athenian tokens in the Hellenistic period, exploring the role of these objects in the rise of ruler cult. The other four case studies (Palmyra, Tyndaris in Sicily, Roman Egypt, the city of Rome) utilize data coming from excavations to explore the possible uses of these objects and their divine imagery. All papers consider how these objects shaped identity both through their use (which creates a sense of being 'included' or 'excluded' from a particular group) and their imagery. Everyday objects, often used unconsciously, are frequently the most powerful forces in shaping individual identities, and the session demonstrates the potential of this overlooked material in studies of cult, religion and identity in antiquity.

The *Symbola* of Demetrius Poliorcetes
Mairi Gkikaki, University of Warwick

Tokens found in the ancient Agora of Athens have long been recognised as having connections to the Council, the Assembly and the Courts, but the exact use of each of specimen is nevertheless almost impossible to determine. Tokens, called symbola in Athens, invited their holders to participate in the dialectic of inclusion and seclusion. Providers, users and end-recipients of tokens played well-defined roles with specific duties. In Classical Athens the highly sophisticated political institutions of the city employed a broad range of equipment that bore official state stamps for the purposes of ratification and authentication. These included symbola. This clear picture is disturbed by the 'iconographic pluralism' of tokens that emerges in the Hellenistic period.

A set of clay tokens found in the vicinity of the Tholos in Athens is remarkable for its devices and the accompanying inscriptions and forms the focus of this paper. It is highly probable that these images and inscriptions can be connected to the democratic regime established by Demetrius Poliorcetes at two different moments in time in the later part of the fourth and the early third century BC. My analysis of these tokens will also explore the significance of the find spot and the implications

of the choice of material for manufacture. Close analysis of these objects challenges our perception of the ways Athenians viewed themselves and their state institutions in the constantly changing and challenging circumstances that transformed the world of the Greek city states into the Hellenistic Kingdoms in the eastern part of the Mediterranean.

The Sacred Twins on Tokens: The Role of Dioskuroi at the Ancient Tyndaris (Messina—Sicily)

Antonino Crisà, University of Warwick

In 396 BCE Dionysius I, tyrant of Syracuse, founded a new colony in northern Sicily to halt the Carthaginian advance towards the east. He chose the area of Abakainon, a native Sicel centre in what is today Messina. Later a small group of 600 Messenian mercenaries left this city and founded a new colony. The founders decided to name the settlement in honor of the Tyndaridae, Castor and Pollux, and Tyndareus, the mythical king of Sparta and stepfather of the Sacred Twins. The settlers thus imported into northern Sicily a set of religious cults from their homeland. Today numismatics and archaeology demonstrate that a long-standing veneration for the Dioskuroi had an impact on the local community of Tyndaris from the early 4th century BC to the early Imperial age.

Thanks to recent research at the Antiquarium of Tindari, we now know that local production of terracotta tokens took place at Tyndaris during the Hellenistic and Roman periods. These tokens, which have been completely neglected within modern scholarship, show the caps of Dioskuroi and two stars symbolizing the daily rebirth of the twins. This paper seeks to understand the role of these tokens, contextualizing their role within the local community of Tyndaris and demonstrating their close connection with tradition and religious cult.

First, I will assess the archaeological context of these tokens using archival records to determine their find spots and dates. I will then analyze the iconography of the tokens, showing their similarity to the coin types of Tyndaris and a mosaic that is still in situ at the archaeological site of Tindari. This comparative material demonstrates that these newly rediscovered tokens carry a set of 'visual' elements taken from local heritage. Finally, I will place Tyndaris' tokens in the wider contemporary context of Sicily as a province, making targeted comparisons with other terracotta discs found on the island. Such data can shed new light on future finds, as well as contribute to a better knowledge of token production in Sicily and its connection with local cults.

Rituals and Religious Complexity in Palmyra: the Case of the Banqueting Tesserae

Rubina Raja, Aarhus University

The so-called banqueting tesserae from Palmyra of which more than 1,100 types are known have in the later years received renewed attention as part of the Palmyra Portrait Project. These small, most often clay tokens, carry detailed iconography, which tells us about the religious life of Palmyra on the one hand, but also about iconographic traditions in the city in general. The small tesserae,

which were produced in series (of at least up to 125), served as entrance tickets to religious banquets in Palmyra in the Roman period. These banquets were hosted by individual Palmyrene priests or by groups of priests belonging to a certain cult or religious group. Religious agency in the ancient city in general has from an archaeological point of view often been examined through the supposed functions of built structures based on their layout and potential functions. While such an approach has offered ideas i.e. on the importance of movement and sequences of sight-lines and specific functions, often the multi-functionality of space and therefore the dynamics of religious agency has been overlooked. Research undertaken on material from the oasis city of Palmyra in the Syrian Desert relating to the activities taking place in the various main sanctuaries of the city, has led to a more nuanced understanding of various aspects of religious life in this city. Through analysis of material evidence on an object level, the organization of religious life in a city that on the one hand was based on tribal societal patterns and on the other hand was part of the Roman Empire, administratively firmly embedded into the imperial organisation, give new insight into the dynamics of instantiated religion. Specifically the religious dining tickets from Palmyra provide an important case study, which has forced us to review religious agency and the dynamics of instantiated religion in a different light. In this paper the tesserae will be addressed, as will their implications for the structure of religious life in Palmyra.

Divine Self-Definition: Deities and Local Communities on Tokens in Rome from the First to Second Centuries C.E.
Clare Rowan, University of Warwick

Amongst the objects brought to light during the nineteenth century renovation works along the banks of the Tiber were several thousand lead tokens, traditionally identified as tesserae. Although listed in Rostovtzeff's larger corpus, *Tesserarum Urbis Romae et Suburbi Plumbearum Sylloge* (1902), these objects have featured rarely in scholarly discussion since.

And yet the designs of these tokens reveal a world in which the Roman language of images was creatively used to communicate different events and identities within the city. Close examination of these tokens reveals that they carry mention of monetary amounts, festivals, games, emperors, corporations, as well as private and familial names. This variety is suggestive of the different users and contexts these everyday objects may have had in the city. What is also striking is the frequent use of divine and imperial imagery on these objects. Whether divine imagery was connected to a particular festival, or whether it granted prestige to an otherwise banal object, the representations of divinities on Roman tokens offer us an insight into local identities at particular moments in time within the city. Just as the provincial coinage of the provinces has proven a useful source for reconstructing local civic identity, so too the tokens of Rome can aid us in uncovering imagery associated with festivals and specific groups within the imperial capital. This paper considers Roman tokens in this context for the first time, examining the images on these tokens and the known find spots of these objects from archival records.

The imagery of tokens in Rome reveals how group identities were formed and reinforced through divine imagery at particular moments in time (festival tokens,

for example, are likely to be single use objects). In particular I will examine the repeated use of Roma and other deities on tokens that name the population of the city and were probably used during festivals (*Genius Populi Romani* or GPR, occasionally accompanied by F or *feliciter),* as well as the imagery chosen to accompany tokens that name *sodales* and individuals or gens. Banal objects, used unconsciously, have repeatedly been demonstrated to be one of the most powerful objects in maintaining identity; the tokens of Rome are thus a powerful source for uncovering the different identities negotiated within Roman daily life.

Token Identities: The Role of Deities on Lead Tokens in the Formation of Communities in Greco-Roman Egypt
Denise Wilding, University of Warwick

The leaden tokens of Roman Egypt have been little studied in the past century, especially in terms of the role that they played in the everyday lives and identities of past communities. Milne's work in the early 1900s categorised them as a low denomination currency, while a more recent study by Mitchiner (1984) analysed a sub group of tokens and presented the view that they are a form of tax receipt. No previous study, however, has attempted to consider these lead tokens as a corpus in light of their iconography (which depicts deities of Greek, Egyptian and Roman origin) in order to establish their purpose and perception by those who used them.

Therefore, this paper will examine the divine iconography on Egyptian leaden tokens in order to ascertain how the depicted deities related to the communities that came into contact with them. The fusion of Greek, Roman and Egyptian styles and divinities demonstrates a melting pot of religions and cultures. This will be considered as an indication of peaceful syncretism before demonstrating how this imagery is also a means by which different communities exhibited themes important to them through semi-official channels. Furthermore, analysis of the iconography shall be used as an indicator of variation within the corpus in order to demonstrate differences in utilization.

This shall be integrated into an analysis of findspots to establish how the distribution of the tokens across a variety of different contexts (temples, houses, rubbish dumps) demonstrates an embeddedness in everyday life, and to show how the divine imagery of the tokens relates to these contexts. Additionally, consideration will be given to the correlations between their wider distribution across Egypt and their imagery.

Through the analysis of divine iconography this paper will demonstrate that the depiction of deities on tokens played an important role in the formation of communities in Greco-Roman Egypt.

SESSION 7D: Colloquium
Venetians Abroad: The Archaeology of Venice in the Medieval Eastern Mediterranean

ORGANIZERS: *Grant Schrama*, Queen's University, and *Deborah E. Brown Stewart*, University of Pennsylvania

Colloquium Overview Statement

After the Fourth Crusade, Venetian activity in the Mediterranean expanded, and the resulting cross-cultural interactions shaped the material culture, architecture, and topography of the eastern Mediterranean during the thirteenth through eighteenth centuries. Engaging with issues of identity, cultural authority, hybridity, and empire building, this colloquium examines the dynamic cross-cultural exchange that took place between Venetian actors and local populations. Using new archaeological data, architectural remains, and archival documents, the papers contribute to our understanding of the period by refining ceramic chronologies and re-examining the uses of fortresses and other structures, while they also question traditional historical narratives about Venetian strategies of imperial control and cultural hybridity. This colloquium explores the intricacies of Venice's social and economic place within the region and provides a more nuanced and comprehensive perspective of Venetian political and cultural importance during the period.

The "Venetian factor": The Distribution and Social Meaning of Venetian Ceramics in Frankish Thebes
Fotini Kondyli, University of Virginia

The Late Medieval Mediterranean (13th-15th centuries) was a sea of interconnected locals, characterized by economic and commercial integration which allowed people, goods and ideas to move along great distances fast and efficiently. The Venetians were at the center of these activities and have been credited with being key nodes in long-distance trade networks and cultural brokers between different political social and religious groups across the Mediterranean and beyond.

In this paper I examine the Venetians' role in Mediterranean trade and the diffusion of ceramic products in the Aegean and in Frankish Greece in particular. I present new finds from the recent excavations at the Ismenion Hill at Thebes that included several Venetian and other Italian ceramic imports. Through these discoveries, I investigate the overlapping local, regional and inter-regional commercial networks that allowed Italian imports to arrive at Thebes, taking into consideration the diffusion of imports from coastal to inland cities, and from cities to their rural hinterland. My aim in tracing the movement of goods is threefold: First, to better understand processes of ceramic diffusion in the Frankish Greece and evaluate the "Venetian factor". Second, to rethink the nature of long-distance trade, pointing to a chain of interconnected locals where products were sold and exchanged, rather than a linear and direct exchange between two places. Building on this idea of interconnectivity, I also consider the variety of Italian, Islamic

and Byzantine vessels that Venetian merchants were possibly accumulating and exchanging along the Aegean, thus also reaching Thebes.

In the last part of my paper, I discuss the cultural and social implications of Venetian commercial activities in Frankish Thebes, focusing on consumption patterns and the socio-economic make-up of the markets that desired and could afford these commodities. I also explore how these Venetian products influenced people's aesthetics, eating and dining habits and functioned as vehicles of self-presentation.

Venetian Commerce at Corinth: New Perspectives on Pottery Chronology as a Framework for the Archaeology of Renaissance in Greece

Guy Sanders, American School of Classical Studies at Athens, and *Florence Liard*, Université libre de Bruxelles, Belgium

We present new evidence from Corinth that a series of Italian glazed wares which were initially thought to be circa 1300 C.E. should be interpreted as being late 14th century and extending down into the 15th century. This provides us with a foundation to develop an archaeology of the Black Death and the Renaissance in Greece and to explore the "catalyst" role of Italian trading powers, and particularly Venice which operated over long periods of times in urban centers of Greece, in the general transformation of tastes and lifestyles, economy, and craftsmanship in the Aegean. We combine archaeological methods, historical research, and ceramic petrology.

The complexes to the east of the Frankish area in Corinth, excavated by the American School of Classical Studies at Athens, have produced three late 14th century jetons in three different contexts. Those jetons were in association with Glossy Ware, Late Sgraffito, Veneto Ware, and the southern Italian RMR and Grid Iron Ware. A device depicted on one jeton of the Florentine Acciaiuoli family is reproduced as a decoration on five examples of RMR.

This evidence stands in contrast with the coin date of the deposits to the early 14th century. It asks questions about the way archaeologists should date material, as the material culture now matches the historical record of the city: Florentine Nerio Acciaioli was Lord of Corinth and Duke of Athens in the last quarter of the 14th century, which explains the wealthy trade connections with Italian cities, including Venice, visible through glazed pottery imports.

This discovery also shows that we should divorce the mid-13th century Zeuxippus Ware from the ca. 1400 Venetian Wares a spirale cercio and other late Sgraffito groups. It provides grounds to explore technological aspects of three stylistically-related wares produced at different times in distinct cultural environments, respectively the Late Byzantine world, the Republic of Venice, and Frankish Greece. It opens the way to the exciting question of internationalisms or regionalisms, continuities and changes in glazing, colouring, and slipping techniques, which all necessitated regular social and economic interactions between peoples for the learning of a certain know-how and for the supply of specific raw materials. This research, which we illustrate with archaeometric results obtained at Corinth, is expected to provide insights into the process of development of a cultural koine in the 14th-century Mediterranean, and into the intricate patterns of Byzantine and Venetian heritages in Greek Renaissance art.

Hidden Venetians: Re-use and Legacy Data in Finding the Entrepreneurs at Isthmia
Lucie Wall Stylianopoulos, University of Virginia

The fifth century C.E. Byzantine Fortress at Isthmia remains a towering ruin in the Korinthian countryside; yet, more attention at the present site is often focused on the extensive earlier buildings that surround it. The Fortress and the Hexamilion wall have been well-published by Tim Gregory in Isthmia V in 1993 and in other publications. As part of the ongoing efforts by Tim Gregory of the Ohio State University and Jon Frey of Michigan State, and partly as a result of support from a three-year NEH grant to develop the ARCS tool, massive amounts of data including notebooks, photographs, index cards, and maps have been digitized and inventoried.

Recent work at the site of Isthmia has consolidated the rich hoard of data from more than 65 years of excavation by multiple institutions and combined that data with fresh onsite investigation of the Fortress and nearby structures. This process of sifting through invaluable legacy data, confronting artifacts anew, and preparing a digital archive to support analysis undertaken by Gregory and Frey with help from numerous colleagues and students provides an excellent model for the task at hand with legacy projects.

This paper proposes to build on the still valid conclusions of the 1993 volume and others in publication and merge findings from the current study of legacy data to propose new ideas for the later re-use of the Isthmia Fortress. Concentrating on a single point of entrance for the Fortress, that by Tower 15, and a chronological space and time based on the data collected in early excavations in 1967, this paper will postulate the use of Tower 15, and perhaps the Fortress, as a multi-purpose Emborio during the medieval period. This approach would see the Emborio at the Isthmus from the 12th-15th century teeming with diverse peoples that necessitated new controls on access. "Finds" from the legacy metadata in the now-digital resources can be combined and re-combined to provide a fresh perspective on use and re-use of the Isthmia fortress by both Greeks and Venetians. The goal is to produce a view of one site, the Fortress at Isthmia, and use it to posit a more prosperous Korinthia in the late medieval period.

Fortified Cisterns on the Islet of Sokastro: Byzantine or Venetian?
D.J. Ian Begg, Trent University, *Michael C. Nelson*, Queen's College, *Amanda Kelly*, University College Dublin, and *Todd Brenningmeyer*, Maryville University

During a Canadian survey of the Early Byzantine port settlement at Leukos on the west coast of Karpathos, the offshore islet of Sokastro was surveyed in 2011. Up on its plateau dozens of small stone cisterns and a few very large ones were the standing remains of a settlement surrounded by fortification walls. The presence of such large cisterns on the small island suggests the possibility of a naval replenishing base or aplekton. Surface sherds indicate a date of 11th through the 13th centuries for its occupation.

Of the four previous published accounts of Sokastro, Ludwig Ross in 1843 believed the castle was medieval, Richard Dawkins in 1903 suggested the cisterns had been built by the Franks, Gilbert Bagnani in 1923 concluded the remains were

Frankish, and N. C. Moutsopoulos in 1977 suggested they were a pirate haven for Saracens.

Karpathian sailors were famed for their shipbuilding and seafaring for a millennium, from at least as early as 409, when a Karpathian fleet brought grain from Alexandria to Constantinople. When the Florentine monk Buondelmonti visited Karpathos c. 1420, he observed that the local inhabitants were black from the pitch used to build ships. Medieval maps created after his time illustrate Sorzadori as the only named island along the west coast of Karpathos. Since this would have been pronounced Giorgiadori, perhaps the little three-apsed church on Sokasto was dedicated to St. George. The adjacent bay on Karpathos is known as Frangolimnionas or Frankish harbor. The Turkish cartographer Piri Reis c. 1520 mentions a Venetian castle in this location, as suggested by Deligiannakis. Thus, whether the cisterns were built and fortified by Byzantines or Venetians no later than the 11th century, they remained known and used by Venetians in later centuries.

The Last Hurrah: Imperial Venetian Nauplion

Diana Gilliland Wright, Independent Scholar

Napoli di Romania, Nauplion, was Venetian headquarters for their second occupation of the Morea (1686-1715), the attempt to renew their empire after the loss of Crete in 1669. As of 1700 they put enormous expenditure and effort into large permanent structures, something they did in no other city of the Morea, most conspicuously the Piranesian fortress of Palamidi, seven bastions designed to defend against each other. A second is the massive Armory for the fleet in Nauplion's main plateia. Seldom seen is the formal gate to AkroNauplion with its Venetian symbol of the two Columns of Justice. Completely unnoticed is the first formal gate, blocked after the second was built in 1713. The formal gate and sequence of staircases intended for ceremonial processions from the port to the castle are singularly constricted for public ritual, allowing no space for public viewing. This paper will offer an analysis of the structures and their physical inwardness which ultimately demonstrates a lack of will for empire and so provides another explanation for the defeat of 1715.

Fortress Morea: Venetian Defensive Strategy in the Peloponnese

Glenn R. Bugh, Virginia Tech

After the Fourth Crusade and the fragmentation of the Byzantine Empire, Venice acquired a number of strategic coastal outposts in the Greek world, dramatically expanding her maritime empire. The Winged Lion of St Mark could be seen on the walls of the massive fortresses at Modon and Coron in the SW Peloponnese; the islands of Crete, Euboea, and Aegina; Patras and Lepanto in the Gulf of Corinth; Monemvasia in the SE Peloponnese; Acrocorinth at the Isthmus; and Nauplion in the Gulf of Argos. After a series of wars with the Ottoman Turks between 1464 and 1669, Venice was forced to relinquish all of her maritime possessions in Greece. However, European events in the late 17th century led to the annexation by Venice of the Peloponnese (Morea) and the establishment of the Second Venetian Empire.

Although it only lasted 30 years (1685-1715), Venetian power in the Peloponnese encompassed the entire peninsula not just the coastal sites as before. Recent research on this period has illuminated the relations between the Greek population and the Venetian overlords using Greek, Venetian, and Turkish documents. This paper will analyze Venice's defensive strategy during this period and the role of her fortresses in executing this strategy. Not only is there extensive correspondence (dispacci and relazioni) between the governors and generals of the Regno di Morea and the home office (provveditori delle fortezze) in Venice, but there is an important manuscript on the state of the Morean fortresses commissioned by the governor Francesco Grimani (1698-1701). This became the subject of Kevin Andrews' seminal study, Castles of the Morea, Princeton, 1953 (revised edition by G.R. Bugh, 2006). The Venetian authorities were keenly aware of the vulnerabilities of their fortresses in the face of the Ottomans, but were reluctant to commit the necessary resources to their proper defense in spite of repeated appeals from their provincial governors. Three reasons stand out: 1) Venice's prioritizing of her northern Italian empire (Terraferma) over the Stato da Mar; 2) Venice's strategic commitment to coastal strong points, and 3) the failure of Venetian authorities to win over the hearts and minds of the Greek population. This paper will identify the social, religious, economic, and military reasons why Venice did not adequately protect the Regno di Morea and why it was consequently so easily reconquered by the Turks in 1715.

The Expansion of Venice: Venetian Merchant Diasporas and Colonialists as Reflected in the Archaeological Record

Grant Schrama, Queen's University

   The focus of the proposed AIA colloquium "Venetians Abroad: The Archaeology of Venice in the Medieval eastern Mediterranean," is on the cross-cultural and imperial measures practiced by the Venetians, as expressed in the archaeological remains. Venetian merchants and colonists throughout the eastern Mediterranean embraced a more symbiotic relationship with those cultures they interacted with, while also promoting and enforcing an agenda of imperial control, noted most starkly in their colonies. Venetians in the medieval period forged new identities outside of Venice, becoming colonialists and members of a trading diaspora. This paper explores these new identities and how they have been recorded in the archaeological remains of the Venetians throughout the eastern Mediterranean.
   Venetian identity outside of Venice during the medieval period took on two forms: that of a trading diaspora and that of a colonial maritime enterprise. Venetian merchants travelling to such cities as Thessaloniki, Constantinople, Sparta, Corinth, and Crete formed a trading diaspora, voluntarily dispersed from their homeland but still retaining some connection to the metropole's ideology and culture. When Venice established its maritime colonies throughout Greece, the Aegean and the Mediterranean, Venetians who migrated to these newly conquered territories became colonialists. Thus, Venetian identity during the medieval period transformed into one that encompassed both a diasporic and colonial nature. Venetian diasporas and colonialists espoused their identity in art and architecture, where they displayed their connection to Venetian society through churches,

administrative buildings, and palaces. Structures in the regions outside of Venice that adhered closely to techniques and motifs present in the metropole reflected the diasporic and colonial side of Venetian identity during this period. However, there was also a sense of cultural hybridity in these archaeological remains, whereby Venice appropriated or actively included aspects of other cultures' architectural styles and motifs. This colonial hybridity was a product of the very multicultural eastern Mediterranean world, where different cultures cooperated and conflicted with each other. Examples from Venetian Crete, Euboea, and the Peloponnese will be examined to further illustrate how the archaeological record reflected a new Venetian identity during the medieval period.

SESSION 7E
Recent Research on the Early Helladic of Greece

CHAIR: *Natalie Abell*, Univeristy of Michigan

Maritime Mobilities in the Early Cycladic Period
Katherine Jarriel, Cornell University

In this paper, I model maritime connections in the central Cyclades (Greece) to better understand small world network interactions (sensu Tartaron 2008, 2013) during the Early Bronze Age (ca. 3100-2200 B.C.E.). Using Geographic Information Systems (GIS), I create a cost raster of local and seasonal wind and wave patterns in the Aegean. Based on this, I generate an anisotropic model of the time it takes to sail outward from various settlements, which I then compare to ethnographic and archaeological evidence about travel times for habitual interaction.

My analysis indicates two very different modes of maritime connectivity in the Early Cycladic period. When considering the Cyclades as a region, the corridor between Naxos and Paros and the area around the Erimonisia emerge as areas of potential high connectivity. Islanders residing in these spatially-defined small worlds could undertake habitual, short-range voyages to establish and maintain social connections based on trust. The model confirms Broodbank's (2000) assertion that communities on different islands often has closer relationships than those on the same island.

However, Melos in the west, Thera in the south, and Delos and Syros in the north exhibit the potential for few local maritime connections during the Early Cycladic period. The persistence of major Early Cycladic settlements on these poorly connected islands indicates the need to reach beyond the local scale due to lack of local connections. Higher investment in longboats, as evidenced by iconography at the Chalandriani cemetery on Syros, or knowledge of the location of valuable natural resources, such as Melian obsidian, may have encouraged persistent, yet infrequent, interactions at a regional scale.

The methodology I employ offers insight into Early Cycladic maritime connectivity. By relying on travel time rather than absolute distance, this model offers an understanding of community interactions based on meaningful scales of human movement and social time. Previous archaeological models of maritime interaction

have emphasized centrality, equating "nearness" with geographical distance. As my model shows, time is the more meaningful variable in determining nearness, and marginal communities frequently enjoy more long-lasting and stable ties than those which are centrally located.

Beyond the Sea: Seven Early Helladic Fortifications in South-East Laconia
Mieke Prent, VU University Amsterdam, and *Stuart MacVeagh Thorne*, Independent Scholar

Early Bronze Age fortified sites have often been considered to be a largely coastal phenomenon, the product of increasing maritime interaction and social competition within the Aegean. Recent excavations and topographical research in Laconia, however, suggest a more complex picture in that region. No coastal fortifications have been identified with certainty, but a series of sophisticated, megalithic Early Helladic fortifications seems to girdle the foothills of the Parnon massif in southeast Laconia, directing our attention inland.

From 1999-2009, Dutch excavations at the acropolis of Geraki exposed a monumental defensive wall of Early Helladic II date, until then the only example of its kind known in Laconia. In 2010-2012, site cleaning and mapping at Kastraki Keratitsas, in collaboration with Greek colleagues Nassos Themos and Elena Zavvou, provided a second example of extensive Early Helladic fortification, only 10 km to the South-East of Geraki. Additionally, in 2012, Professor Iannis Pikoulas published his important study of the historical road network of Laconia, ΤΟ ΟΔΙΚΟ ΔΙΚΤΥΟ ΤΗΣ ΛΑΚΩΝΙΚΗΣ. In an appendix, he lists another five fortresses, pointed out by local sources, which he associates with the Hellenistic defence of major routes through the Parnon.

It is our contention that these fortresses, despite later reuse, were originally constructed in the Early Helladic period. This contention is based on analogies in building styles with the more reliably dated Early Helladic walls at Geraki and Kastraki. At the first, excavation has proven construction in Early Helladic IIA, with significant rebuilding in Early Helladic IIB. Moreover, the Early Helladic II wall complex was visible and reused until at least the Classical and possibly the Hellenistic period. At Kastraki, there was a noteworthy absence of later ceramics and of the usually ubiquitous roof tile. On the contrary, sherds, obsidian and green stone tools noted at and around the site all indicate the Early Helladic period. Similar surface finds predominate at the other five fortresses. Intensive survey and excavation are, as always, required to confirm specific construction dates. Exploration is, however, beginning to open a window on the configuration and interrelationships of Early Helladic communities in inland Laconia — a window hitherto closed. This brings into focus a densely populated and dynamic world beyond the coastal areas.

From an Egalitarian Neolithic to a Complex Early Bronze Age? A Reexamination of the "Eutresis Culture" Based on New evidence from Mitrou, East Lokris, Central Greece

Aikaterini Psimogiannou, University of Illinois at Chicago

Even though it has been almost half a century since its designation by Colin Renfrew in the *Emergence*, the "Eutresis culture", that is the first stage of the Early Bronze Age in the central Greek mainland (ca. late fourth-early third mill. B.C.E.), remains a poorly understood phase of Aegean prehistory. This is due to the scarcity of excavated contexts and ceramic sequences, as well as to a general dearth of absolute chronologies. Focusing on new ceramic and stratigraphic evidence from the site of Mitrou, in east Lokris, where a stratified sequence from the end of the Neolithic to the late Early Helladic II phase (ca. fourth mill. B.C.E. - ca. 2200 B.C.E.) has been unearthed, this paper proposes a refined pottery chronology for the region that is supplemented by new radiocarbon dates. Furthermore, the analysis of ceramic changes at Mitrou in combination with evidence from other central Greek sites, such as Proskynas and Eutresis, as well as from sites in the Peloponnese (e.g. Tsoungiza), where similar sequences have been attested, offers some first insights into diachronic social processes and changes. The period encompassing the end of the Neolithic and the EBA "Eutresis culture" is considered critical in Aegean prehistory, because it precedes the emergence of the first complex societies in the Early Helladic II phase. During the latter, certain styles and valuables became associated with high status individuals, and feasting gained a prominent role in the political economy of Early Bronze Age II societies on both sides of the Aegean. The present study indicates how the "Eutresis culture" might have marked a shift towards a more exclusionary ethos of consumption, which eventually led to the institutionalization of social complexity in the EH II phase. In this new "Eutresis culture" context, distinct ceramic assemblages served as materially identifiable means of acquainting and displaying social status, challenging for the first time long-held egalitarian norms and values.

Excavations at the Early Helladic II Site of Romanou near Pylos, Greece

Sharon R. Stocker, University of Cincinnati, *Evangelia Malapani*, Ephorate of Antiquities of Messenia, *Salvatore Vitale*, Università di Pisa, *Calla McNamee*, American School of Classical Studies at Athens, *Hüseyin Öztürk*, College Year in Athens, and *Anna Michopoulou*, Independent Scholar

In 2014 and 2015, the Ephoreia of Antiquities of Messenia, under the direction of Evangelia Malapani, investigated a large field at the edge of the village of Romanou, near the mouth of the Selas River, where the T.E.M.E.S. corporation, developers of the Costanavarino Resort, were intending to build off-season practice facilities for European professional football teams. In the autumn of 2014 it was determined that the very large settlement of the Early Helladic period, previously investigated by Jörg Rambach in the area of the 15th and 16th holes of the Navarino Dunes golf course, had expanded into this field. It is now clear that the Romanou settlement was the principal Early Helladic site in western Messenia, considerably larger and more complex than Voidokoilia.

In late winter and early spring of 2015, a team sponsored by the University of Cincinnati was invited to support the Ministry of Culture in its work. At that time the distribution of surface artifacts was mapped, the depth of cultural deposits tested, and a detailed topographical map of the site was produced using drone photography. In May and June, excavations were conducted, with the University of Cincinnati again supporting the Ephoreia. Shallow floor deposits of Early Helladic II lay just beneath the surface, resting near bedrock within rooms defined by stone walls with mudbrick superstructures. Two phases of EH II are represented; the later of these is a destruction deposit. A pithos burial of the Early Iron Age period was later set into the Early Helladic II remains: a primary burial with the complete skeleton of a man and a secondary burial consisting of the long bones and skull of a woman. A second pithos burial, of the Middle Helladic period, was found nearby.

Substantial samples of soil from EH II contexts at the site were water-sieved. In one trench, especially large numbers of grape pips were recovered, seemingly once contained in a collapsed pithos. Several hundred samples have already been processed by flotation and many have been scanned for preliminary observations on their content as regards to botanical remains. This preliminary examination has revealed that the site is rich in grape pips, providing the earliest evidence for cultivation of the grape in the western Peloponnese.

The Early Helladic II Roofing Tiles from Zygouries (Corinthia, Greece): Form and Context

Kyle A. Jazwa, Duke University

In this paper, I present a preliminary examination of the Early Helladic (EH) II roofing tile assemblage from Zygouries. This includes a description of the outward form, fabric, and decoration of the 185 tile fragments, as well as the evidence for their production. I also present a contextual analysis of this material and its association with the EH II architecture at the site. After considering all this, I place the Zygouries tile assemblage in the broader context of monumental and vernacular, EH II tile-roofed structures in Greece.

Zygouries was excavated in the 1920s by Carl Blegen. At the time, the House of the Tiles at Lerna and other tile-roofed structures had not yet been excavated, and the existence of EH roofing tiles was unknown to the excavators. As a result, the tile fragments recovered were neither studied nor published during the excavation's initial study. Decades later, while examining the ceramic material for the site, Daniel Pullen identified 185 tile fragments from the Zygouries collection and briefly described the material in his dissertation ("Social Organization in Early Bronze Age Greece: A Multi-Dimensional Approach" [U. Indiana, 1985]). In the summer of 2017, I conducted the first comprehensive examination of these tiles in preparation for a forthcoming publication of this architectural material.

Overall, the Zygouries tiles have features that are both consistent with other tile assemblages and unique in mainland Greece. The tiles' general shape and structure, for instance, compare favorably to the tiles found elsewhere in Greece; they are nearly square, thin slabs of fired clay. The shared form suggests a common method of assembly, with the edges of each tile overlapping other tiles to cover

shallowly pitched roofs. In contrast, the surface treatment of the Zygouries tiles is unique, with several featuring red or black Urfirnis paint on their surfaces. Because the visual effect of this treatment distinguished the tile-roofed structures at Zygouries from the predominate thatch or flat roof buildings in mainland Greece, this decoration was certainly a monumental and symbolically impactful architectural feature. Also noteworthy is that the methods of tile production are not the most consistent with the site's closest neighbors in the Argolid. Instead, they are more favorably compared to the Mitrou tiles in East Lokris—a relationship that is not evident with a study of pottery or other traded items. This suggests a distinct network of interaction through which tile-making knowledge was transferred to/ from the sites.

Use Wear Analysis on Obsidian Tools: Evidence for Fish Processing at Early Bronze Age Mitrou, Greece

Marie-Philippine Montagné, Aix-Marseille Univ

This paper presents a case study in use wear analysis on chipped stone tools from the Aegean Bronze Age settlement of Mitrou, in central Greece. Use wear analysis is the study of macroscopic and microscopic traces. It provides evidence not only for the uses of tools, but also for hafting and others modalities which can occur during tool use. This approach is rarely applied in Aegean Bronze Age sites, even though chipped stone tools remained in use throughout this period. Use wear analysis can reveal activities which cannot be identified through other materials, either because these are perishable and have not been preserved, or they have been recycled (such as metal). In order to demonstrate the importance of this methodology, this paper will focus on fish processing. It will show how use wear analysis, especially on obsidian tools, can contribute to the debate of fishing activities and fish consumption during the Early Bronze Age which are, until then, poorly or even more not detected at all through zooarchaeological or isotopic studies. Thus, use wear analysis offers the opportunity to deepen and renew our knowledge on the subject. My experiments have shown that obsidian, because of its relative softness, is more susceptible than other materials to being marked by soft materials such as fish skin and scales. Hence it provides an excellent tool for observing fish processing activities, and it gives us insight into human fish consumption.

Seal Use and Social Change: Early Helladic Sealing Practices in Context

Maggie Beeler, Bryn Mawr College

In this paper, I investigate the regional dynamics of emerging social complexity in the Early Helladic (EH) II period (ca. 2650-2200 B.C.E.) based on seal use. Using contextual analysis of seals, clay sealings, and seal-impressed objects, I argue that mainland communities adapted seal use to local needs rather than strictly adhering to Near Eastern forms and functions. This approach balances an existing emphasis on foreign influence based on seal designs that has privileged the interpretation of seals as prestige goods used by administrative elites. Although widely

seen as a proxy for complexity, I suggest that EH sealing practices actively structured the differential nature and pace of social change at sites across the mainland.

The Aegean Early Bronze Age (EBA) was a period of interregional integration, when communities in Greece, Crete, and the Cyclades adapted new materials and ideas from the wider Mediterranean world in distinct and diverse ways. On mainland Greece, the development of monumental architecture, bronze metallurgy, and administrative seal use in particular are associated with the emergence of social complexity in EH II. However, widespread destructions at the end of the period heralded dramatic social transformations signaled by the loss of monumentality, sealing, and other indicators of complexity. The relative decline in EH III contrasts sharply with contemporary developments on Crete, where complexity increased without interruption and the first Minoan palaces were built centuries before their mainland Mycenaean counterparts. How do we account for these divergent historical trajectories?

To address this question, I investigate the role of EH seal use in the process of social change by relating sealing to other lines of evidence, including architectural, burial, and feasting practices. The results of this analysis reveal variations in seal use that reflect wider regional trends for local adaptations to external influences between central and southern Greece. Because sealing and communal feasting practices were closely linked at some mainland sites, I propose that seal use served simultaneously as a mechanism for social integration and differentiation. I suggest that feasting and sealing together represent a social institution that masked the political aspirations of aggrandizing elites and may ultimately have suppressed them, given the breakdown of complexity at the end of the EH II period. These findings therefore contribute to a broader understanding of the dynamic process of social change in the EBA Aegean.

SESSION 7F
Goddess Cult

CHAIR: *Laura Gawlinski*, Loyola University Chicago

Rediscovering Artemis Laphria at Kalydon: Preliminary Results
Signe Barfoed, University of Kent, Canterbury

Ancient Kalydon in Aitolia, western Greece, is the site where the famous myth of the Kalydonian boar-hunt described by Homer and Hesiod took place. Despite a long tradition of Greek-Danish archaeological work at the site, very limited archaeological evidence has been fund from this early period and the corresponding early sources.

Excavations carried out in the 1920-30s were later published by the then director of the Ny Carlsberg Glyptotek in Copenhagen, Frederik Poulsen, the renowned Greek archaeologist Konstantinos Rhomaios, and the Danish architect Ejnar Dyggve. The publications contained the architecture and architectural terracotta elements from the sanctuary of Artemis Laphria and the so-called Hellenistic Heroon, but the pottery, votives, and small finds from the sanctuary excavations were

never published. In 2016, the permission to study the material was approved by the Greek Ministry of Culture and Sports, and this paper presents the very first preliminary results from a new research project focused on the study of the pottery and votives of the Kalydonian Artemis Laphria Sanctuary.

The unpublished assemblage consists of more than 30 wooden trays of pottery, terracotta figurines and protomes spanning the Geometric-Roman period, with most datable objects centered in the Archaic-Classical period. The earliest pottery from the assemblage dating to the second half of the 8th century B.C.E. are sherds of the so-called Thapsos-Ware, which is believed to have been produced in the ancient region of Achaea across the Corinthian gulf from Kalydon, thus, in this early period pottery was already imported to Kalydon. Evidence both from the Artemis Laphria assemblage and the recent excavation at the Lower Acropolis (2013-16) proves that this significant import pattern continued through the seventh-sixth centuries B.C.E.

Apart from the preliminary results of the Artemis Laphria project, this paper also considers the methodological problems connected to studying an assemblage without stratigraphical contexts and the prerogatives of archaeologists in the 1920s where pottery was overlooked and only a selection of the pottery discovered in the excavations were kept.

This "new" material establishes that the Artemis Laphria Sanctuary was of regional importance in this early period with close connections to important sites in nearby regions during the city's formative period in the time of Homer.

A Decade of Excavations at the Sanctuary of Artemis Amarysia in Amarynthos (Euboea)

Tobias Krapf, Swiss School of Archaeology in Greece, *Sylvian Fachard*, American School of Classical Studies at Athens, *Denis Knoepfler*, Collège de France and Académie des Inscriptions et Belles-Lettres, *Karl Reber*, Swiss School of Archaeology in Greece, *Amalia Karapaschalidou*, Ephorate of Antiquities of Euboea, *Thierry Theurillat*, Swiss School of Archaeology in Greece, and *Paraskevi Kalamara*, Ephorate of Antiquities of Euboea

The sanctuary of Artemis Amarysia in Amarynthos was according to ancient literature and epigraphic sources the most renowned shrine of the Eretrian polis, and its annual festival, the Artemisia, drew large crowds from Euboea and beyond. Yet, despite its regional fame and prominence, its remains have eluded archaeological identification. As a result, the location of the Artemision has been a vexed question of Euboean topography for over a century. Between 2003 and 2007, however, a new impetus was given to its localization. In collaboration with the Ephorate of Antiquities of Euboea, the Swiss School of Archaeology in Greece carried out a large-scale geophysical survey in the area of Amarynthos, some 11 km east of Eretria, at the foot of a hill locally known as Paleoekklisies. After first trial trenches in 2006, that led to the discovery of Bronze Age habitation layers, a monumental foundation was discovered in 2007 that turned out in the following years to be part of a Doric stoa of at least 50 meters length. Systematic excavation since 2012 brought to light three further buildings, including an Archaic edifice in

antis. We suggested that these buildings were part of a monumental complex that should be identified as the Sanctuary of Artemis Amarysia.

A decisive step in this research was made in 2016, when a large plot of land in front of the stoa was acquired, and the excavation season of 2017 indeed revealed numerous new structures in this zone, and finally the epigraphic proof for the identification of the Artemision.

This paper aims to summarize the research of the past ten years in the area of the sanctuary, to discuss the evidence for the location of the cult site, and to present the architectural remains of Archaic to Roman date, as well as the most important finds.

Placemaking, Festival Networks, and Connectivity at the Sanctuary of Hekate at Lagina

Christina Williamson, University of Groningen

At the intersection of divine authority and political concerns, major sanctuaries such as Olympia or Delphi were natural arenas for Panhellenic rivalry and communication and are commonly considered instrumental in the formation of the Greek city-states in the Archaic period. Less well understood is why this Panhellenic phenomenon became so popular at the civic level in the Hellenistic world, particularly in Asia Minor where more and more Greek cities began hosting interstate games at their own main sanctuaries. Athletics aside, how did these festivals impact sacred and ritual space? What different levels of community were affected and how did they leave their mark behind on the sanctuary?

I examine these questions through the case study of the sanctuary of Hekate at Lagina. According to the epigraphic data, Lagina was absorbed by nearby Stratonikeia in the second century B.C.E. to become its primary civic shrine, thereby uniting much of the surrounding communities. Stratonikeia furthermore used Hekate's cult to obtain privileges from Rome after the Mithridatic wars in the first century B.C.E., and celebrated this by organizing the Hekatesia-Romaia festival with invitations to the rest of the Greek world. Lagina thus looked both inwards and outwards as it continued to serve local communities while linking the polis to the expanding festival network in this era. But how is this reflected in the topography of the sanctuary? The concept of 'placemaking', described by Wortham-Galvin (2008) as "a conflicting simultaneity of archetypes, models, ideals, and performative tactics," can help interpret the entanglement of interests at such sanctuaries and the various shapes that they took. Next to the civic decrees documenting Roman support and peer, Lagina attracted public monuments for the local elite, but also less official traces, such as 'graffiti', by private individuals, all of which staked some kind of claim to this prestigious space.

In this interdisciplinary approach I combine spatial analysis with network theory to assess the strategies behind these global, local and personal investments. Using Lagina as an example of multi-vocal placemaking, I argue that a strong attraction of the new 'local-panhellenic' festivals was their ability to compound scale and interests at these sanctuaries while forging ties and connecting their multivocal communities to the larger 'global village' of the Hellenistic oikoumene.

The Lap of the Mother
Rebecca Sinos, Amherst College

Two vases that have not received much attention offer unusual scenes of interest to the study of the Greek wedding and also of mystery iconography. Both vases are lost and are preserved today only in modern representations of their scenes, the first in aquarelles, now in the Deutsches Archäologisches Institut in Rome, depicting scenes from a Kerch vase, and the second in a drawing of a fourth-century Athenian relief vase once in Berlin. Both scenes have as central figures one woman seated in the lap of another. I will compare these scenes to other red-figure scenes in which this motif occurs with attention to its range of contexts and possible meanings and especially its place in wedding and Eleusinian scenes. This evidence not only supplements our understanding of these rituals but also sheds light on the language of a gold leaf from a grave in Thurii with the words "I have sunk under the kolpos (into the lap) of the Lady, the Chthonian Queen," supporting Bremmer's recent suggestions about the interpretation of this formula.

Cybele in the Classical Period: Explaining her Absence Beyond the Greek Mainland
Kurtis Tanaka, University of Pennsylvania

The cult of the mother goddess, known to the Greeks as Cybele, has been the subject of renewed and intense interest since the 1990s. Lynn Roller's now classic 1999 monograph, *In Search of God the Mother*, provided a masterly overview of the goddess' development in Anatolia and her transmission to Greece and Rome, with more recent scholarship filling in or expanding upon Roller's work. There remains, however, a consistent lacuna in the history of the goddess's cult, which, though recognized by Roller in 1999, has not been sufficiently investigated or explained. This lacuna is the cult of the mother goddess outside of mainland Greece in the Classical period. Virtually all of our evidence for the goddess's cult at this time, both archaeological and literary, comes from the mainland, while in Anatolia, the Black Sea, and other parts of the Mediterranean, evidence for her cult abruptly breaks off around the time of the Persian wars, only to resume in the Hellenistic period. The Persians are usually blamed for this apparent suppression of the mother goddess's cult, and this view constitutes the current orthodoxy. Yet such religious interference stands at odds with everything we know of the Persians' religious policies in their empire, nor does it explain the wider phenomenon beyond Anatolia. Clearly another explanation is needed.

This paper attempts to provide one such explanation by tracing the development of the goddess's cult in the Greek world, with special attention paid to the cult's configuration in mainland Greece and Anatolia. Using a combination of literary and archaeological sources, I argue that the cult of the goddess developed along two different trajectories, as a goddess of wild ecstatic rites on the Greek mainland, and as a goddess of mediation between Greek and non-Greek in Anatolia. Following the trauma of the Persian wars and the creation of a more distinct Greek identity, it appears that the mediative role emphasized by the Anatolian tradition was seen as less important or desirable as attitudes toward the east grew

more concretely negative, thus contributing to the cult's decline in Anatolia. The revival of the cult in the Hellenistic period, therefore, represents the importation of the mainland tradition back to Anatolia, where new attributes such as the scepter and mural crown signify a rather different role for the mother goddess there than what had occurred before.

Placing the Cult of Fortuna and Mater Matuta at Sant'Omobono during the Middle Republic
Daniel P. Diffendale, University of Michigan

The archaeological site beneath the church of Sant'Omobono in Rome's Forum Boarium preserves evidence of over two and a half millennia of religious practice in the Eternal City. Based on the results of recent fieldwork combined with archival research, I reconstruct the architectural development of the sacred precinct during the Roman Republic (fifth—first centuries B.C.E.) and explore the implications of the archaeological remains at Sant'Omobono for understanding the cults of Fortuna and Mater Matuta, especially during the Middle Republic (fourth—third centuries B.C.E.). The site offers the rare chance for a synchronic study of the layout of a third-century Roman urban sanctuary, including altars, votive pits, temple cellae, and water features, while the available artifactual material, though imperfect, fleshes out some of the ritual. The evidence of ancient literature can also be brought to bear—with caution—on these questions. Sant'Omobono also repays diachronic study. The plan of the precinct became more open with each successive Republican rebuilding, perhaps leading to greater visibility of the sacred goings-on. This provides a contrast with the modern scholarly interpretation of the Matralia (the festival of Mater Matuta) as highly restrictive, formed on the basis of ancient literature indicating that participation was restricted to matronae, while enslaved women were explicitly excluded. Other archaeological evidence indicates that, even if the rites of the Matralia were gender-restricted, the same was not true of the precinct more generally.

Isis, Minerva, and Fortuna: Deciphering the Relationship between Caesarea Maritima and Domitian's Second Minerva Reverse Type
Kira K. Jones, Emory University

Perhaps the most innovative image to come out of Flavian Rome is Domitian's second standard Minerva reverse. The coin features Minerva with raised spear and shield, standing on a rostral column or ship's prow with an owl at her feet. While this Minerva must have had an obvious meaning for Domitian, it has not survived in labelled reproductions. Through iconographic analysis of coins from both Rome and Caesarea Maritima, as well as archaeological data and primary source material, I propose that the second Minerva type is linked to Domitian's building activity around the Fortuna-Isis-Minerva temple complex on the Esquiline.

Caesarea Maritima, a port colony in Judea which was situated on major mainland and maritime trade routes, was of particular importance to the Flavians. It was here that Vespasian and Titus housed their troops during the siege of

Jerusalem, and the troops at Caesarea were the second group, after Alexandria, to proclaim Vespasian emperor. They owed their colonia status to Vespasian, and later received dispensation to mint their own coins under Domitian. One of the first coins minted utilized the second Minerva type in conjunction with a trophy; this is the only instance outside of coins issued by the imperial mint where this Minerva type occurred.

The use of a trophy is an obvious nod to the Judean victory, a cornerstone of Vespasian and Titus' propaganda which continued to be important under Domitian. Domitian himself had little to do with the Judean war, however, and so the addition of Minerva (who is either sailing away from or setting up the trophy) is calculated to appeal to him. Unfortunately, the connection is not clear, as Fortuna, synchronized with Isis for the opening of the sailing season, was undoubtedly their main deity. Since the addition of Minerva was meant to indicate a strong connection between Caesarea and Domitian's Rome the most likely candidate is a reference to Domitian's Fortuna-Isis complex, which also featured Minerva. In this way Caesarea could both celebrate its history as a Flavian stronghold, while bolstering its connection to Domitian by intimating that the same goddesses who guided him were also a powerful force in Caesarea and had been intervening on behalf of the Flavians from the beginning. In conclusion, Caesarea Maritima's use of the second Minerva type indicates an assumed connection between their own cult of Fortuna-Isis and Domitian's focus on Fortuna-Isis-Minerva in Rome.

SESSION 7G
Fieldwork in Italy

CHAIR: *Steve Ellis*, University of Cincinnati

Rome at Its Core: Reconstructing the Origins and Development of the Forum Boarium River Harbor
Andrea L. Brock, University of Michigan

This paper presents the results of a geoarchaeological investigation conducted in the heart of Rome between 2013-2016. Rome's river valley, called the Forum Boarium, marks the site of the city's original river harbor and an important crossroad in prehistoric central Italy. By drilling a series of cores that produce sediment boreholes more than 15m long, it becomes possible to survey previously inaccessible archaeological and geological stratigraphy across a wide area and with great depth. As coring survey explores the interactions and relationships of past peoples with their landscape, utilization and refinement of these techniques will help launch promising new research in the emergent field of environmental archaeology.

Coring survey and environmental sampling offer new perspectives on the nascent city by providing data on the pre-urban environment and urban development in Rome's river valley. This survey exposed key features of the natural landscape in the Forum Boarium, including the location of Rome's original river harbor and a raised floodplain terrace at the base of the Capitoline Hill. I argue that

Rome's origins as a harbor settlement allowed the community to achieve regional dominance from its inception. Moreover, I posit that the exponential growth of trade between Etruria and Greece in the seventh century B.C.E. created new opportunities, which motivated the early inhabitants of Rome to begin engaging in large scale building and landscape modification projects, aimed at building a cohesive city that could also be protected from nuisance flooding.

Additionally, this multi-disciplinary project has provided an empirically-driven timeline for Rome's urbanization process, corroborating a rich archaeological and literary record that signals sixth century Rome as transformative. The paleoenvironmental evidence indicates that the Tiber riverine system was relatively stable during the beginnings of sedentary habitation at the site of Rome, but sometime after the early sixth century the Tiber began a process of rapid silting. Between 580 and 480 B.C.E., 5.8 m of sediment was deposited in the river valley of the Forum Boarium. This sedimentation rate represents a significant hydrological shift in the Tiber basin well beyond the norm of nuisance flooding, which I argue is a direct consequence of the Romans' expanding urban activities on the local landscape. I also introduce evidence for dredging in the harbor as early as the fifth century B.C.E., as the Romans were compelled to adapt to their volatile river in order to protect important ritual and commercial pursuits in the Forum Boarium valley.

Unveiling the Roman Countryside: a Combined Methodology to Map the Structure and Complexity of Rural Landscapes
Gijs Willem Tol, University of Melbourne

Research on Roman Italy has traditionally been dominated by a strong urban focus and a preference for the study of the extensive monumental remains belonging to this period. It was not until the advent—and subsequent fast development—of archaeological surface survey as a major investigative technique from the 1950's onwards, that the countryside of Roman Italy started to receive due attention. The tens of thousands of surface scatters identified over the past decades indicate that Roman society was primarily agricultural and it is commonly agreed now that the majority of the population was living in the countryside, with large portions of it depending on those same rural areas for the provision of everyday goods. At the same time, this enormous reservoir of survey data has until now contributed relatively little to a deeper understanding of the structure, complexity and development of the Roman countryside and agricultural practices.

Much of this is due to issues that are inherent to archaeological surface survey. Traditional approaches have been predominantly site-oriented, resulting in simplified and static maps of dots—mainly thought to represent habitation sites - that mask an undoubtedly much more complex and dynamic reality. Many activities (of an agricultural or non-agricultural nature) may have taken place across the landscape that did not involve tangible material culture and are therefore not captured by traditional surface survey techniques (e.g. refuse pits, ditches, field divisions, canals etc.). Although nowadays much more commonly applied, follow-up methods, such as geophysical prospection and test trenching, are generally contingent on the results of this initial surface inspection, and therefore further strengthen the focus on archaeological sites.

In this paper we present the results of a pilot study in the Pontine Plain, a former wetland, that—based on earlier work—boasts a relatively pristine Roman landscape. By adopting an integrated approach of field walking survey, geophysical prospection, and soil studies to a number of sample areas, we moved away from the site-oriented approach that is common in the study of Roman rural landscapes, in favour of a landscape-scale perspective that allows highlighting the full range of activities and interventions associated with human occupation. The results exceeded expectations: not only did we unearth significant traces (canals and smaller ditches) belonging to a Roman land division scheme, other mapped anomalies reveal evidence for a buried late prehistoric landscape which may have involved similar field management principles as the later Roman phase.

The Upper Sabina Tiberina Project: Sixth Excavation Season at Vacone

Tyler Franconi, University of Oxford, *Dylan Bloy*, University of Tennessee, *Gary Farney*, Rutgers University, *Matt Notarian*, Hiram College, and *Candace Rice*, University of Alberta

The 2017 excavations at the Roman villa of Vacone were carried out by the Upper Sabina Tiberina Project in association with Rutgers University and the Soprintendenza Archeologia del Lazio e dell'Etruria meridionale. A major task for the season was the removal of a modern road that overlaid a significant section of the northern area of the villa. Following its removal, we were able to investigate the northern end of the eastern cryptoporticus. Above the cryptoporticus we discovered a well-preserved portico with in-situ wall paintings and mosaic floor. The mosaic pattern is identical to that above the southern cryptoporticus, suggesting that the two structures formed an L-shaped portico along the eastern and southern sides of the villa. Further excavations in the newly cleared area also revealed evidence for the post-Roman life of the site, including a large kiln and a well-preserved burial. Excavations inside the central peristyle located two in-situ column bases, along with a drain channel positioned to catch rainwater below the inner edge of the stylobate. A well-preserved column collapse showed that the columns were constructed out of wedge-shaped limestone blocks that were then covered over in fluted stucco. We also continued excavation of a large reception room facing onto the southern cryptoporticus, which is now understood to measure roughly 13 x 8 m, with a black-ground mosaic with inset marble and stone fragments. The size of this room clearly posed structural problems, as a later wall was constructed through the middle of the room to better distribute the weight of the roof. A large mosaic threshold composed of a geometric band of diamonds and hexagons with floral motifs was preserved on the northern edge of this room; we currently hypothesize that this opens onto the as-of-yet discovered atrium. Excavation in the southern substructures of the villa clarified the relationship of an underground passageway with the southern cryptoporticus and the main villa terrace, and also verified the existence of a well. Work inside the southern cryptoporticus revealed the floor and foundation levels of the structure, as well as its relationship to a series of vaulted rooms abutting the cryptoporticus. Passage between the cryptoporticus and the vaulted rooms was possible in the first instance, but was later blocked. While excavating these features in the villa, we completed

a full photogrammetric survey of the main terrace and standing features, allowing for both 3D modelling and orthophoto planning of the entire site.

Excavations at Podere Cannicci (Paganico - GR). Results of the First Season at the Impero Project

Alessandro Sebastiani, University at Buffalo

The aim of this paper is to show the results of the first archaeological season at Podere Cannicci (Paganico—GR, Italy). Here some structures inform about the presence of a late Etruscan to Early Republican sanctuary and a related vicus.

In 1989-1990, rescue excavations carried out by the Soprintendenza brought to the light a series of rooms whose chronology was between the fourth century B.C.E. and the beginning of the first century B.C.E. The complex was interpreted as the remains of the pars rustica of a Roman villa, due to the presence of a number of dolia during the excavations. The recovery of a number of terracotta uteri together with some anatomical parts and a statuette depicting Minerva suggested the near-by location of a sanctuary set along one of the main terrestrial route between the coast of south Tuscany and the mainland towards the Mount Amiata. The rooms of the complex uncovered during the research were abandoned after a violent fire, occurred possibly during the Civil War as a hoard of silver denarii dated between 88 B.C.E. and 80 B.C.E. seems to prove.

Under the umbrella of the IMPERO Project (Interconnected Mobility of People and Economy along the River Ombrone), in the summer 2017 an archaeological season has started in order to clarify the origins of the settlement, its occupation phases and to better understand the relationships with the surrounding Etruscan and Roman sites. Although certain elements remain coherent with the interpretation of the 1989-1990 excavations, the new trench demonstrates that the settlement is part of a larger site, most likely a vicus, whose economy was strictly related to the presence of the nearby sanctuary area. Moreover, the discovery of a metal workshop suggests that the complex didn't have only an agricultural vocation. Finally, a systematic survey and recording of the nearby sites has started in order to better comprehend the settlement network in the late Etruscan and Republican period in this part of Tuscany.

Exploring Libarna's Urban Landscape: Report from the 2016 and 2017 seasons

Hannah Friedman, Texas Tech University, *Katherine Huntley*, Boise State University, *John Bradford*, Boise State University, and *Michael Boyles*, Texas Tech University

This is a report of the first two seasons of archaeological survey at Libarna, a Roman municipium in northwest Italy. The site, founded in the mid-second century B.C.E., was built along the via Postumia, a major trade route that connected Genova to Aquileia. This strategic position is mirrored today in the presence of a major roadway and two railway lines that bisect the site. Along with a power station built on top of the ancient city, Libarna poses all the methodological problems of an urban site despite its location in a relatively rural location.

To account for these challenges we have used multiple geophysical techniques, namely Resistivity, GPR, Magnetometry, and drone imagery. The results of these two seasons is that we have been able to greatly increase our knowledge of Libarna's urban plan, which was not well documented previously. Furthermore we have identified a particular crop of alfalfa, known locally as Erba Medica Gia, which is very sensitive to underlying archaeology. As a result of this crop and increasingly dry summers, the drone in particular produced spectacular imagery of structures previously unknown.

Moreover, through our investigation we are beginning to be able to make sense of Libarna's complex history of excavations that took place in the 19th and 20th centuries. Most of these excavations were undertaken in response to modern construction. It is becoming apparent to us that a closer examination of older maps and projected urban layouts need reconsideration based on our new data. This report outlines the sections of Libarna's urban plan that we can confirm and those that differ substantially from previous archaeological literature. Thus far, it is clear Libarna itself represents an opportunity to gain insight into the regional diversity of Roman urbanism in northern Italy, which is less well understood than that of central and southern Italy.

Samnite Hill-Forts between History and Archaeology
Alexander Hoer, Freie Universität Berlin

The tribes referred to as "Samnites" by Roman sources were particularly noted for their ferocity. The wars waged against them served as a powerful symbol of the threat posed to Roman hegemony by aggressors found throughout the Italian peninsula. Livy (books 7-10) demonizes the Samnites as belligerent and establish the concept of the bellum iustum, pointing to the Samnite desire to expand into the Roman allies' territories.

Samnites allegedly posed a threat to Roman hegemony and were subsequently fought in several wars in the last four centuries B.C.E. The image of Samnites conveyed in literary sources has recently been challenged by archaeological research in the modern Italian regions of Campania, Molise and Abruzzo, which has focused especially on sanctuaries and settlement patterns (Baeker 1995, Quilici-Quilici 2011, Stek 2015). An important feature, which reflects the martial nature of the Samnites, has however, received little attention so far : hilltop settlements surrounded by massive megalithic walls. Although S.P. Oakley presented an initial overview and catalog of these structures in his important monograph from 1995, he did not create new maps or syntheses based on archaeological fieldwork.

The aim of this paper is to provide a reassessment of Samnite hilltop settlements through fieldwork and new theoretical approaches. The target is to discuss the chronology, size, design, significance, nature and function of these settlements, along with a critical discussion of Roman impact on the Samnite landscape. To solve these questions, I adopt a twofold macroscale and microscale approach. Recording all ca. 100 known hill-forts within a GIS system allows for systematic analysis of their spatial distribution, topographical location and their relationship to each other. Two extensive field survey campaigns of the micro-region around Venafro, carried out in 2017, serve to document several hill-forts and their

surrounding features in more detail, using modern methods and technologies (SFM, drone, DGPS). Therefore, the paper discusses the new results carried out in these field campaigns conducted by the Freie Universität Berlin. They provide a new perspective on the broader territorial and historical context, the nature of settlements and walls, the relation of hill-forts and valley based settlements and their strategic position concerning trade-routes, transhumance and topographical features.

Through this methodological approach, hill-forts can now be classified much more precisely, distinguishing three different categories: satellite hill forts, simpler hill forts for shelter, and fortified in fieri cities which were continuously modified even in roman times. In sum, I argue that the impact of Rome on the Samnite landscape requires strong reconsideration.

Digital Approaches to Network Archaeology: the 2016 Field Season of the Ostia Connectivity Project

Lindsey A. Mazurek, Bucknell University, *Cavan Concannon*, University of Southern California, *R. Benjamin Gorham*, University of Virginia, and *Alexander Meyer*, University of Western Ontario

This paper presents the preliminary results of the first season of fieldwork for the Ostia Connectivity Project. Globalization in the ancient world has come to the forefront in recent years as scholars focus on the large and small-scale trade networks that shaped the Mediterranean. Despite these advances, we still lack a way to interrogate the connections between the local and the global. This Ostia Connectivity Project (OCP) aims to bring these together by focusing on the social work that goes into creating and maintaining connectivity between the local and the global, participating in broader conversations about how global political and economic structures interact. Over the last year, we mined inscriptions for data on the networks of people, institutions, and things that connected Ostia(ns) with the broader Mediterranean. From this dataset, we visualized three test cases using the social network visualization platform Gephi, producing social maps of the devotees of Egyptian deities, devotees of Mithras, and members of the Collegium of the Builders.

Over the summer of 2017, OCP ran its first season of GIS fieldwork, mapping inscriptions from our three test cases across the site. These provide a new spatial dimension to our digital network archaeology, suggesting new avenues for future research. Examining these and other networks in Ostia offers a chance to reconsider how the inhabitants of a bustling Roman port city created and preserved connections at home and across the Mediterranean world.

Controlling the Chora III. A New Mountain Fort in the Territory of Locri Epizephyrii

Paolo Visonà, University of Kentucky

For nearly a century since the pioneering work of Paolo Orsi (1859-1935) little archaeological research has been conducted in the hinterland of Locri Epizephyrii, in southern Calabria As a result, the organization and defense of the Locrian chora

are largely unknown. New evidence, however, shows that the borders of the territory of Locri and of neighboring poleis were protected by permanent fortifications as early as the sixth century B.C.E., a period of intense interstate conflict across the region. Recent investigations on the Dossone della Melìa, a high plateau separating the Locrian chora from that of Medma, a Locrian subcolony on the western coast of Italy, have located a major Greek fort next to a smaller structure. Terrestrial remote sensing and test excavations carried out in 2017 by a team from the University of Kentucky and the Foundation for Calabrian Archaeology, at nearly 1000 m above sea level and at 14 km from the Ionian coast, have yielded significant data on the layout and span of occupation of both buildings. The fort at contrada Bregatorto has a rectangular plan tapering towards its western entrance and covers an area of over 2000 m², including a tower in the southeastern corner facing towards Locri and the sea. Approached from the west by what seems to be a road or a ramp, it appears to be one of the largest Greek forts of this kind uncovered in Magna Graecia thus far. The pottery and roof tiles found in a test unit that reached sterile soil indicate that it was occupied between ca. 500-300 B.C.E. and was destroyed in a violent conflagration. The building at località Coculédi, 400 m to the south of the fort, seems to have a rectangular plan. Excavations uncovered a portion of the western perimeter wall, which was dry-built mainly with granite blocks from an outcropping nearby and is preserved to a height of at least three courses. What appears to be a votive deposit was found in situ inside this building, which was also destroyed by fire. The pottery from Coculédi is tentatively datable to 550-450 B.C.E. and comprises fragments of Ionic cups and skyphoid cups and of Locrian amphoras. Numerous surface finds of chert utensils and a decorated rim of a Stentinello-style vessel suggest that the flat area between the two Greek sites was occupied by a Neolithic settlement.

SESSION 7H
The Archaeology of Roman Economy and Production

CHAIR: *J. Theodore Peña*, University of California, Berkeley

Calculating Material Use In Dolium Production: A Synthetic Approach
Gina Tibbott, Temple University, *Stanley Chang*, Wellesley College, and *Caroline Cheung*, University of California, Berkeley

In an age before refrigeration, large-scale ceramic storage containers were important and expensive farm equipment in the ancient Mediterranean. Used for wine fermentation and as storage containers for wine, oil, and other foods, dolia and other storage vessels could vary in size, with capacities ranging from 150 to over 1,000 liters. Although these vessels have been found in farms, shops, and warehouses throughout the Mediterranean, little is known about how exactly these vessels were made, much less the scale of their production. Yet closely examining the numerous vessels themselves reveals the artisans' techniques and choices, and how difficult and specialized this production could be. This paper discusses how mathematical models can help us both understand better these large vessels and

what their production and procurement entailed. The computation, developed from data of nearly 400 dolia of Pompeii and Ostia, calculates the range in sizes of the vessel as well as their volumes, helping calculate also the weights of the vessels and the scale of their production. It also helps estimate the size of the vessel when some of the dimensions or even parts of the vessel are missing, and will be helpful for other archaeological sites and projects with dolia. By taking into account the dolium's distinctive morphology, the computation also sheds light on the design of the vessel, as well as the artisans' methods and techniques for building such large vessels. Combining this information with ethnographic work on pottery production, this paper also presents a model for the production and firing of these vessels. It considers how a container's size might have impacted its production, acquisition, transportation, and installation. Overall this project studies a vital aspect of the Roman food supply system with mathematical models and ethnographic comparanda to understand more precisely how much was invested into the movement and storage of agricultural commodities.

Fragile Giants: The Manufacture and Repair of Dolia in West-Central Italy
Caroline Cheung, University of California, Berkeley

Before the advent of airplanes, refrigeration, and big trucks, how were foods, such as wine, readily available across Rome's vast territorial empire? An important player was the dolium, a large ceramic storage vessel that typically contained liquid commodities. Although dolia never figure in the grand narratives of Roman history, they were the superstars of the ancient Mediterranean wine market. These traditional storage containers could hold more than 1,000 liters and were typically employed for the fermentation, storage, and occasionally even the transport of wine. These vessels were expensive investments, yet they have been found in incredibly large numbers (about 200 at Ostia alone), which gives a sense of how much was invested into the proper movement and storage of wine during the Roman period.

To learn more about the nuts and bolts of the Roman food supply system, this project examined over 400 dolia and dolium fragments from three settlements in west-central Italy: two towns in viticultural zones, Cosa and Pompeii, and Rome's port, Ostia. This paper presents preliminary results for understanding the technology for the production, repair, and maintenance of dolia and highlights major developments in the industry.

The dolium production sites used the same technique (coil-building) to manufacture these vessels, but the scale of production was very different. Workshops that supplied the area of Rome and Ostia were not only able to manufacture much larger dolia, but seem to have drawn on techniques from the architectural industry to be able to build at such a scale. A great deal of time, materials, and effort went into making these vessels as large as they were, but they cracked easily. Since they were so expensive, they were often repaired. These repairs were occasionally no different from the repairs of smaller pottery. At smaller sites, specialized repairmen and tinkers carried out these repairs after the vessel had already left the workshop. But the repairs at Ostia were completely different -- they were mostly made during the production process, mending the ceramic dolium with methods

and advanced alloys that were up to that point only used by architects to join large blocks of stone. This allowed artisans to build at such a large scale and saved the vessels from irreparable damage. The paper ultimately posits that dolia were entangled with the wine industry, and dolia were both the products of and actors in the transformations of the socio-economic conditions of west-central Italy.

The Evidence of Roman Brick Stamps at Gabii

Christina Cha, Florida State University

One of the ways the city of Rome greatly expanded its sphere of influence was through the development of a widespread trade network. Both material goods and cultural ideas were passed along these lines, establishing Rome as an important center of control. Based on the surviving archaeological evidence, Rome appears to have enjoyed a close commercial relationship with its peripheral cities. This project is particularly interested in the production and distribution of Roman brick as evidence for these economic ties. Using the neighboring site of Gabii as a case study, this study illustrates how the ancient people of Gabii depended on a steady import of brick from Rome to supply their local building program.

Roman brick is useful for this type of study due to its visibility in the archaeological record. It is also one of the few classes of materials that readily supplies information about its place of production from unique makers' marks. The brick makers began stamping their bricks with their names in the Late Republican era, a practice that continued well into the Imperial period. The stamps were meant to ensure the quality of the product, which was then distributed both nearby and far away from Rome. Brick was a staple building material for the Romans, who were largely dependent on it in developing their architectural forms. Thus, it was important that this cheap yet durable material was consistently available in large quantities to fulfill its demand.

Stamped bricks have several uses in archaeology. Their most significant function is to date the contexts in which they are found; for example, they are often used to date buildings. They can be used also to date other artifacts, including other bricks found together in the same context. Finally, their distribution patterns away from their center of production provide important information about Roman trade connections.

The collection of stamped bricks analyzed in this study comes from the excavations of the Gabii Project. The Gabines imported a wide range of products from the commercial hub that was Rome, including stamped bricks. Many of the stamps found at Gabii have comparable examples from Rome. As a result, this particular study of Roman bricks found at Gabii can contribute to the ongoing research about trade connections between Rome and its neighboring cities.

New Evidence for Trade and Amphora Processing at Oplontis B (Torre Annunziata, Italy): Results from the 2014-2017 Seasons

Jennifer L. Muslin, University of Texas at Austin

The Oplontis B peristyle building was an active trade depot processing wine and other items for shipment at the time of its destruction in 79 C.E.; it presents a

rare opportunity to study not only a potentially complete ship cargo on land but also the commercial and industrial activities related to the repackaging of commodities in transport amphorae.

Between 1973-1991 the Archaeological Superintendency of Pompeii excavations of a small coastal settlement called Oplontis B uncovered a vast artifact assemblage including amphorae, cooking and tableware, wooden fencing, pomegranates, pitch, bronze vessels, wall painting fragments, and marble weights and building decoration. These finds remained largely unstudied until the Oplontis Project began examining them in 2014. This paper presents the preliminary results from the first comprehensive study of this assemblage, elucidating amphora processing and commercial activity in the warehouse section of this unique complex in Pompeii's suburbium.

At the time of its destruction, workers had arranged the amphorae in groups around the warehouse's peristyle and were in the process of washing, waterproofing, and refilling them for shipment. Repairing, reusing, weighing, cork stoppering, and labeling the amphorae for delivery were daily activities on site when new shipments of agricultural products arrived there by land or by sea. Several Oplontis B amphorae show evidence of being tapped just above the spike, leaving their necks intact rather than broken from being uncorked, and then repaired with pitch and a ceramic plug for reuse, suggesting that, in addition to their contents, the amphorae themselves had inherent value.

The quantity of material is overwhelming: 724 crates, 165 loose amphorae, and heaps of organic material housed in Oplontis B along with another 412 amphorae and hundreds of objects housed in Oplontis Villa A ("Poppaea"). Using the Minimum Number of Vessels Represented method, we quantified 965 amphorae in addition to those amphorae already known from the Archaeological Superintendency finds register for a total of 1377 vessels, equivalent to a single shipment of transport amphorae. Our analysis reveals that 90% of the Oplontis B amphorae are Central Italian Dressel 2-4s, while Eastern Mediterranean amphorae (Cretoise 1 and 2, Dressel 5, Pompeii 13) account for the next largest group in the assemblage, indicating that they also played a significant role in the warehouse's negotium. These results shed new light on the study of packaging and reuse in regional and overseas trade in the first century C.E. Roman world.

Multi-crafting Community in the Roman Countryside: Results of the Marzuolo Archaeological Project, 2017

Rhodora G. Vennarucci, University of Arkansas, *Gijs Willem Tol*, University of Melbourne, and *Astrid Van Oyen*, Cornell University

The Marzuolo Archaeological Project completed its second season of excavation at Podere Marzuolo (Grosseto, Italy), a Roman period rural production site where evidence for an experimental and standardized phase of terra sigillata pottery has been discovered. The project aims to contextualize technical innovation in ceramic production within a local community of practice and within a broader regional network of production and distribution. The 2017 season specifically sought to uncover kilns and production waste for both phases of pottery production in order

to refine our understanding of the technical changes between the two attested productions in the first centuries B.C.E./C.E.

Instead of primary ceramic production evidence, however, the most recent excavations revealed evidence for metal production. A set of ironworking tools was discovered inside an opus quasi-reticulatum building, the site's most substantial masonry structure, which has also been associated with the standardized phase of sigillata production. The metalworking tools appear to have been hanging from hooks on the wall or arranged on wooden shelves just inside the wide-open entryway of a single-roomed cella when the building burned down in the mid-late first century C.E. The remains of a tank lined with cocciopesto in the room to the west, as well as the remains of a large ceramic basin discovered a few meters to the east further characterize this area as an industrial zone. While previous excavations had investigated southern sections of the opus quasi-reticulatum structure, this season produced the first well-preserved occupation levels, significantly clarifying the building's chronology and function.

The impetus to regard each craft separately still dominates approaches to Roman crafts production, largely overlooking the interaction that occurred between craft producers in a community. How does the practice of multiple crafts simultaneously and in close proximity to one another impact the process of innovation, the transfer of technical knowledge, the organization and social dynamics of production? Excavations by the Marzuolo Archaeological Project encourage a better contextualization of rural production sites by situating technical change in pottery production within the framework of a purpose-built, multi-crafting community.

Totally Goats: The Sarcophagus of T. Aelius Evangelus and the Roman Goat-Hair Industry

Aerynn Dighton, University of California, Santa Barbara

The sarcophagus of T. Aelius Evangelus, currently at the Getty Villa in Malibu, presents some interesting puzzles among its images. Not only does this second-century C.E. panel depict a male wool-comber and a male spinner on either side of a traditional funerary banquet scene, but there are also several animals which look like goats, including one placed in the position more typically taken by a pet dog in such scenes. In the only detailed analysis of this sarcophagus, Peter J. Holliday (GettyMusJ 21 [1993] 85-100) argues that these creatures are actually sheep, claiming that sheep in the ancient world looked like goats and that goat hair was not combed at the time. He proposes that Evangelus may have owned a workshop which produced woolen cloth; thus, the sheep on his sarcophagus represent the source of his wealth. In this paper, however, I argue that the creatures are in fact goats, and, more significantly, I show why goats could be important to someone in the Roman textile industry. The goat-hair trade played a critical role in the Roman world, as demonstrated through an interdisciplinary analysis of ancient literary sources, archaeological finds, and current research in textile science.

While the market for goat hair may have been less lucrative than for wool or silk, it was an important fiber for specific uses. Roman authors describe the use of goat hair in ropes for ships and siege engines, along with other textiles which needed to withstand hard use and sea-water, while certain types of goats were

being bred for long hair in the provinces (Varro, Rust. 2.11; Verg. Geor. 3.311; Pliny HN 7.76; Ael. NA 16.30). Archaeological finds of goat-hair textiles from this era demonstrate the industrial and nautical uses of the specialty fiber, and they also provide evidence that the workers on the Evangelus sarcophagus could be processing goat hair. In addition to bringing together the literary and material evidence, I show how modern scientific studies of this fiber reveal the chemical and structural peculiarities which make goat hair more suited for such uses than either wool or linen. Goat hair may have been a niche market, but the need for ropes for the Roman navy and army alone would have been extensive enough that the goats on the sarcophagus may indeed represent the source of Evangelus' wealth, without requiring them to be sheep.

SESSION 7I: Colloquium
Recent Research and Discoveries at Aphrodisias

ORGANIZERS: *Allison B. Kidd*, Institute of Fine Arts, New York University, *Joshua Thomas*, University of Oxford, and *Hugh Jeffery*, University of Oxford

Colloquium Overview Statement

Recent work at Aphrodisias has revealed exciting new information. This colloquium presents the latest findings of the NYU-led project, discussing important new evidence for the life, art and architecture of the antique and post-antique city. This panel highlights the results of recent excavation campaigns and addresses new research concerning sculpture, its production, and its display in the city from the Early Imperial to Middle Byzantine periods. Together, these papers represent the diversity of work currently undertaken by our team and demonstrate the value of applying synchronic and diachronic evaluation methods to the study of this unique archaeological site.

Following an introduction (Paper #1), three papers present findings from The Mica and Ahmet Ertegün South Agora Pool Project. Paper #2 provides an overview of the 'South Agora' excavations and an analysis of its architecture and planting beds to propose a chronology for the construction and the maintenance of this 'Place of Palms' from the first to sixth centuries C.E. Paper #3 considers the park's sculptural decoration, examining how its ornamentation developed over time, and why particular subjects were deemed suitable for display there. Paper #4 addresses the period after the pool fell into disuse, discussing the Byzantine conversion of this monumental center into a marketplace, and the later transformation of the area into a zone of agricultural production and manufacturing.

Paper #5 concentrates on the excavation of the 'Tetrapylon Street' in the area that connects the Sebasteion to the aforementioned urban park. New discoveries along the street demand an evaluation of the way in which urban aesthetics and water management were maintained at Aphrodisias as access along this thoroughfare continued, was prohibited, and later reinitiated from Late Antiquity to the early modern period.

Turning to sculpture, Paper #6 analyzes statues from the Bouleuterion to explain how the redeployment of second and third century statuary in the fourth century C.E. exemplifies changing priorities and manners of viewing during Late

Antiquity. Paper #7 addresses the corpus of Middle Byzantine carved marble at Aphrodisias by exploring the sculpting techniques of itinerant workshops and the varied use of such marble in context. And finally, Paper #8 focuses on new findings from the 'South Agora' and 'Tetrapylon Street', particularly two sculptural heads, one dated to the Tiberian period, the other to Late Antiquity. These discoveries have allowed for the reunification of previously uncovered bodies with their heads, making it possible to study two notable portrait statues in their entirety.

The 'Place of Palms' at Aphrodisias: The Mica and Ahmet Ertegun South Agora Pool Project

Ben Russell, University of Edinburgh, and *Andrew Wilson*, University of Oxford

The so-called South Agora at Aphrodisias is a monumental public space of uncertain character. Excavated in a piecemeal way between the 1930s and 1980s, it has variously been interpreted as an agora, a gymnasium, and an urban park. Surrounded on three sides by colonnades and on its fourth by a columnar façade monument, the so-called Agora Gate, the complex is defined by its enormous pool, 175 m long and 25 m wide In order to understand the dating of the different phases of this complex, its function, and its development over time, a new project was initiated in 2012 to excavate the remainder of this central pool and certain key sections of the surrounding square. This project is generously funded by Mica and Ahmet Ertegun, Baron Lorne Thyssen, the Headley Trust, and the Malcolm Hewitt Wiener Foundation. In this paper, some of the initial results of the excavations and architectural study of the South Agora is presented. These excavations, through the discovery of planting beds and archaeobotanical evidence for gardening, have confirmed not only that the South Agora was indeed an urban park but also that it was carefully maintained as a park for at least five centuries. Close study of the surviving columns, capitals, bases and stylobate blocks of the colonnades has revealed numerous phases of repairs, alterations and, in some cases, major adjustments; the walls of the pool itself were similarly repaired, at least up until the early sixth century C.E. Even when the entire ground level of the park was raised, in the late fifth or early sixth century C.E., new planting pits seem to have been cut; it was still considered vital in this period that the park and its pool continued to function. This ties in well with epigraphic evidence from the base of the Agora Gate which documents restoration activity in a place referred to as the 'Place of Palms' by Ampelius, a local notable, and Dulcitius, the governor, in the late fifth or early sixth century C.E. This paper argues that our South Agora is in fact this 'Place of Palms' and draws on additional evidence for commercial and leisure activities in the complex to build up a picture of its use over the first five centuries of its use.

'The Statues of the Cyclops': Re-constructing a Public Statue Monument from Aphrodisias

Joshua Thomas, University of Oxford

In the late 1970s and early 1980s, excavations at Aphrodisias unearthed the remains of the Agora Gate, a monumental columnar façade that connected the large

urban park known as the South Agora to the arterial north-south avenue border-ing it to the east. Immediately in front of the Gate, excavators uncovered a large collecting basin incorporating a high concentration of spolia, now identified as a header tank designed to supply water to the enormous marble-lined pool lying at the heart of the South Agora complex. This collecting basin was constructed sometime during the sixth century C.E. A remarkable statue base shaft of the High Imperial period was built into the south wall of the basin. The base remains in situ, and is inscribed on two adjoining faces with separate texts recording repairs that were made to the statue monument that the base belonged to. From these texts, it is clear that the monument was originally crowned by a statue group incorporating a representation of the Cyclops Polyphemos, which would have been set on top of a (now lost) upper plinth. This Cyclops monument forms the subject of this paper.

Nothing of the Cyclops statue group has yet been excavated, but a reconstruc-tion of its iconography remains possible thanks to the texts on the surviving base, sculptural fragments from Aphrodisias, and a series of other representations of the Cyclops myth surviving from antiquity. It is argued that this arresting mon-ument originally stood in a major public center of Aphrodisias, perhaps in the South Agora itself, which appears to have been a locus for the display of ambi-tious mythological statuary during the earliest phase(s) of its existence. Recogni-tion of this public display context permits a comparison with the Cyclops group that decorated the so-called Fountain of Domitian at nearby Ephesos, and calls into question the theory that the latter group was conceived as a direct response to the well-known Polyphemos groups set up in the imperial residences of con-temporary Italy. The paper concludes with some thoughts about why the Cyclops myth was deemed suitable for the adornment of public buildings and spaces in the Greek cities of Asia Minor during this period.

From Urban Park to Land Partitions: the Byzantine and Post-Antique Transformation of a Classical Urban Center

Allison B. Kidd, Institute of Fine Arts, New York University

The archaeological investigation of Aphrodisias' so-called 'South Agora' from 2012 to 2017 has concentrated on a previously unexcavated area within and im-mediately surrounding the city's ornamental 175 m long pool. This large area, measuring approximately 110 x 37 m, has yielded significant new information regarding the nature of the abandonment of the pool in late antiquity and its sub-sequent reuse.

Using the results of recent archaeological campaigns, this paper provides an important historic narrative that details the patterns of human settlement in this major urban sector of the ancient city from the 7th–20th centuries C.E. To this end, a chronological framework is presented based on an analysis of the layers of al-luvial deposits that began to accumulate at the bottom of the pool once it fell into disrepair. A series of human activities are then set within this framework and are examined, beginning with the Late Antique through Middle Byzantine periods when two substantial deposits of rubble debris were dumped into the pool and a 'cattle ramp' was installed at the northeast end of the pool, activities which co-incided with the area's transformation into a marketplace. This survey continues

through the medieval Seljuk and later Ottoman periods when a complex array of field walls and small dwellings were built within and above the pool walls, often rebuilt and realigned over time as inhabitants adapted to repeated collapses from the theater-hill retaining wall, persistent flooding, and the changing ground level of the area. The presence of these dry stone walls and large quantities of ceramic building material demonstrates that the area was eventually partitioned into land divisions, while the further recovery of concentrated deposits of glass slag, glass fragments, animal bones, and several pieces of faceted quartz crystal, reveals the type of activities that took place within them.

By focusing on an often overlooked chronological sequence in the post-antique archaeological record, this presentation will explore the transformation of a Roman-era monumental urban park into a fluid zone of small scale agricultural production and manufacturing. This continuity of settlement finds parallel among urban landscapes across the Mediterranean world. Given that archaeologists trained in the study of the classical world frequently are also responsible for the excavation of later periods of history, this paper provides one possible solution for the application of a field methodology that is tailored for the systematic documentation of late and post-antique stratigraphy among classical archaeological sites.

Recent Research on the Tetrapylon Street
Ine Jacobs, University of Oxford, and *Ben Russell*, University of Edinburgh

The Tetrapylon Street was one of Aphrodisias' main thoroughfares, connecting the north of the city center with the Aphrodite sanctuary, the Sebasteion and the theater. Its importance was expressed both in its width (with a road surface of c. 6 m) and its colonnades, which were kept in good order until the very end of antiquity. Part of the street was already excavated in the 1980s, with continuous excavations starting some 10 years ago. This presentation focuses on the most recent results from the 2016 and 2017 campaigns, which focused on the sections in front of and just to the south of the Sebasteion. The uncovered remains span a period of almost two millennia, from the original Early Imperial road surface to the modern houses of the old village of Geyre. The original road surface was apparently very difficult to maintain as the area in front of the Sebasteion propylon was flooded soon after the completion of the building. Unsurprisingly, in the late fourth or early fifth century the Late Antique road was relaid ca. 1.40 m above the original street. Further ongoing aesthetic concerns are apparent in the construction of a concurrent fountain abutting the podium of the west wall of the Sebasteion's north building. Excavations to the south of the Sebasteion uncovered a residential quarter and a Middle Byzantine bath house, consisting of at least two possibly three rooms, one of which was equipped with a hypocaust system underneath a suspended floor. Together with a large water tank they formed a quasi-square building. The associated praefurnium was located to the east of the main building. As all these structures were installed above the original road surface, through traffic was no longer possible. Traffic was restored only centuries later, long after the bath complex had collapsed. Several early modern to modern street surface and associated water channels have been recorded. They remained in use until the relocation of Old Geyre to the modern village in ca. 1960.

The Repair and Display of Damaged Statues in Late Antique Aphrodisias: Four Marble Statues from the Aphrodisian Council House (Bouleuterion)
C.H. Hallett, University of California at Berkeley

During the excavation of the Aphrodisian Bouleuterion there were found eight marble statues fallen on the stage or in the orchestra that all probably come from the scaenae frons of the building. These statues all date to the second or early third century C.E.; but they seem to have been set up in the building only in the later fourth century C.E., during its refurbishment by the Roman Governor, Antonius Priscus. Four of the eight statues show signs of having been seriously damaged and then painstakingly repaired. It is argued that these repairs were undertaken precisely for the redeployment of these statues on the stage building of the Council House; and that some of the repairs should be thought of as distinctively Late Antique or fourth century in character (—unthinkable earlier). Some aspects of the new fourth century display of these statues may also be regarded as symptomatic of the changed way of viewing of such antique (High Imperial) statuary in the cities of Late Antique Roman Asia.

Carving Marble in Medieval Aphrodisias
Hugh Jeffery, University of Oxford

As the other papers in this panel attest, archaeological research at Aphrodisias has revealed a great deal about the practices of ancient marble sculptors. Evidence from the quarries, from the sculptors' workshops and from repairs has illuminated the complex chaîne opératoire behind the city's famous sculptural assemblage. However, the corpus of medieval carved marble remains almost entirely unpublished and the working procedures of the Middle Byzantine sculptors have yet to be explored. Over the 2016 and 2017 excavation seasons around 200 fragments of carved marble dating between the 9th and 12th centuries C.E. were recorded. These were primarily from the Cathedral of St. Michael (Temple-Church) and the Triconch Church, though stray and unprovenanced finds likely represent currently unidentified structures. The fragments enable a study of the organisation and methods of medieval sculptors as well as a better understanding of the built environment of medieval Aphrodisias. Stylistic groupings attest to multiple workshops and consequently to repeated interventions to maintain the town's liturgical and architectural furniture. These workshops were itinerant, and their products may be identified at other sites in the Maeander region. The artifactual environment of the town was by this point saturated with available marble. Close examination of the fragments reveals the mechanisms through which suitable pieces were sourced from the ruins and transported to locations close to medieval structures to be recarved. Incised guidelines provide evidence for tools, techniques and procedures. Preserved traces of paint hint at bold polychromy. Finally, alterations and incongruent archaeological contexts demonstrate the long biographies of the blocks, as pieces were transferred to different churches or re-erected in new configurations.

Statues of Aphrodisias: Recent Research and Discoveries
R.R.R. Smith, University of Oxford

Aphrodisias continues to give up large amounts of high-quality marble statuary with excellent contexts, dating from the Early Imperial period to the end of antiquity. After a brief survey of recent finds of marble sculpture and of the main lines of recent research into the culture of carved marble in Aphrodisias in the Imperial and Late Antique periods, the presentation focuses on a few key recent discoveries from excavation in the 'South Agora' and 'Tetrapylon Street', notably new portrait statues of a Tiberian princess and a Late Antique notable, whose recently excavated heads it has been possible to recombine with their bodies.

The Tiberian princess belonged to the Propylon of the Sebasteion and is an interesting example of the direct connections of the city to the imperial center. The Late Antique notable comes from a rich statue deposit on the Tetrapylon Street in which marble figures of the fifth century were used in a new spolia construction of the ninth century. This case raises several interesting questions about the lives of statues and about the chronology and costume choices of Late Antique honorific portraits. These new finds also provide good examples of the complete archaeology of ancient statue monuments.

SESSION 7J: Colloquium
Whats New at Gournia? The Gournia Excavation Project, 2010-present

ORGANIZERS: *D. Matthew Buell*, Concordia University, and *Kevin T. Glowacki*, Texas A&M University

Colloquium Overview Statement

Harriet Boyd Hawes conducted the first systematic excavations at Gournia in 1901 and 1903-1904, revealing a palace, a public plateia, some 64 houses, two extramural cemeteries, and a street-network. Hawes was primarily concerned with documenting this small city at its height in the Late Minoan IA (ca. 1600-1480 B.C.E.) period. More recent work at the site and its environs, including a detailed examination of the settlement's Prepalatial remains, House Tombs and palace (Soles), a reappraisal of the site's architecture using Hawes's notebooks (Fotou), a regional survey (Watrous), and an architectural mapping project of the harbor area (Watrous), however, revealed tantalizing clues that the settlement was a thriving Protopalatial (MM IB-II) center and that its Neopalatial (MM IIIA-LM IB) history was far more complex than previously understood. As a result of these studies, Watrous (University at Buffalo, SUNY) initiated a five year excavation project (1010-2014) with the goal of documenting how and when the settlement was established and how it changed over time.

This colloquium includes seven papers, each focusing on key aspects of the built and social environments of Gournia as revealed by five summers of excavation and three study seasons. Taken collectively, these papers shed important new light on how the settlement developed and changed over time. Buell (Concordia

University) and McEnroe (Hamilton College) will discuss aspects of their work on the settlement's architecture, especially as it pertains to the Protopalatial period, its community, and socio-political and economic organization. Gallimore (Wilfrid Laurier University) and Glowacki (Texas A&M University) provide an overview of the palace area from its Pre- and Protopalatial remains, to the establishment of the Neopalatial palace in the Middle Minoan IIIA period through to its final destruction at the end of the LM IB period. Smith (Brock University) presents two foundation deposits recovered from palace that mark two crucial events in the life history of the complex, including its early Neopalatial foundation (MM IIIA) and later ashlar refurbishment (LM IB). Barnes (Old Dominion University) and Kunkel (Hunter College) focus on the industrial character of the site in the Late Minoan IA period, presenting, respectively, on a metal foundry and kiln installation in the settlement's northern sector. Chapin (Brevard College) provides a diachronic overview of the Gournia plasters from both the palace and city. Watrous (University at Buffalo, SUNY) offers an overview of the settlement during its final Neopalatial phase (LM IB), framing his discussion against the broader socio-political developments of the Mirabello region and the northern Isthmus of Ierapetra.

Populating the Protopalatial: Architecture and Society at Gournia

D. Matthew Buell, Concordia University, and *John C. McEnroe*, Hamilton College

Over the course of three seasons (1901, 1903, and 1904) Harriet Boyd Hawes uncovered extensive remains of an ancient town that flourished until its violent destruction by fire at the end of the LM IB period. In her 1908 publication of the site, Boyd Hawes focused on the "Town Period" (LM I) and devoted relatively little attention to earlier Pre- and Protopalatial remains. Subsequent work at the site by the Greek Archaeological Service (1971 and 1972), summarized by J. Soles (1979), and an intensive three-year (1992-1994) archaeological survey of Gournia's environs, conducted by C. Davaras and L.V. Watrous suggested that Gournia was already a large and flourishing settlement in the Protopalatial period. In light of this evocative evidence, one of the principle goals of the Gournia Excavation Project, directed by Watrous, was to document the development and character of the earlier settlement.

As part of the Gournia Excavation Project, we initiated an architectural survey and mapping program using both traditional field techniques and digital technology. When these architectural studies were contextualized with survey and excavation data, a new picture of the Protopalatial town began to emerge. We learned that in this earlier period the town already had an extensive system of paved streets, a series of monumental houses, and a cemetery for elite families. We have established that a monumental civic-ceremonial building of more than 1,000 m2 in size stood on the site of the later Neopalatial "palace" in the Protopalatial period. We have raised new questions about the long-term development of the town, and about how and when Gournia emerged as a regional center.

Stratigraphic Excavations within the Gournia Palace 2011-2014
Scott Gallimore, Wilfrid Laurier University, and *Kevin T. Glowacki*, Texas A&M University

Recent excavations within the Gournia palace have revealed much new evidence for the occupation of the site prior to the construction of the Neopalatial complex and for the formation processes, ritual activities, and architectural development and phasing of the palace itself. In the central portion of the palace (rooms 18, 19, 20, 20a), a deep early Protopalatial (MM IB) fill of pebbles retained by a large terrace wall covered an even earlier, Protopalatial, boulder-paved area. Immediately on top of the fill levels, a small room was first established and later filled with secondary and tertiary cultural deposits, all still within the early Protopalatial period. Although in situ finds do not allow us to establish the room's function with certainty, architectural details such as a series of low, narrow benches that lined the room's interior and exterior facades may suggest some type of non-domestic, perhaps ritual, purpose for the enigmatic enclosure.

In the southern and southwestern portions of the Neopalatial complex (rooms 13-18b), excavation immediately below the levels reached by Hawes discovered a number of important cultural levels that shed new light on this part of the structure. Significant findings include evidence for initial construction of the palace in the early Neopalatial period (MM IIIA) along with major renovations at the beginning of LM IB. Systematic excavations have also revealed at least two LM IB destruction levels, important ceremonial and feasting deposits in Rooms 13 and 17, the first Linear A tablet to be recovered from Gournia, and detailed evidence for the function (e.g., storage, ritual, access) of these spaces within the palace.

Ritual Feasting in the Early Neopalatial Period: Middle Minoan III Pottery from the Gournia Palace
R. Angus K. Smith, Brock University

Among the more significant results of the Gournia Excavation Project has been the redating of the origins of the Neopalatial palace at Gournia to the very beginnings of this period in MM IIIA. Two of the most significant ceramic deposits from this early phase of the palace come from the Southwest Wing of the palace. The first of these is a foundation deposit found below Room 13 of the Southwest Wing. Pottery from this context included hundreds of cups, bowls, jars, scoops, miniature vessels, and incense burners. This deposit helps to date the earliest phase of the palace to the MM IIIA period, and also sheds light on a foundation feast that occurred in or near this important ritual space near the well-known baetyl at Gournia.

The second, more recently discovered deposit comes from Room 17 of the Southwest Wing, and represents a LM IB fill with significant amounts of earlier MM III material, most likely from the palace. The pottery from this deposit includes worn, but restorable cups, bowls, jugs, incense burners, miniature vessels, and a large portable hearth or offering table. This latter deposit seems to be indicative of activities that occurred in the palace itself during the MM III phase, which included ritual drinking. Together, these two deposits give us a good idea of the

earliest phases of the Gournia palace and some of the ritual and feasting activities that may have taken place in and around the complex as reflections of community building and for the display of social status.

An LM IA Metal Workshop at Gournia
John Tristan Barnes, Old Dominion University

Excavations at Gournia in 2013 and 2014 revealed the remains of a small metal workshop at the northwestern edge of the town. The workshop was nestled between large outcroppings of bedrock, positioned to take advantage of the predominant breezes coming from the coast, with surrounding rooms used for the storage of materials and tools. Various stages of the metalworking process are attested by the presence of ore fragments, slag, and metal scraps that were most likely stored until they could be melted down and reused. Fragments of molds and crucibles evidence the manufacture of tools at the site. Production was short-lived, however, as the workshop became active and ceased within the LM IA period. The area was subsequently built over and scavenged for metal scraps. The LM IA date also coincides with other production areas at the northern edge of the town.

Minoan metalworking is not well attested on Crete during the LM IA period, and this example has the potential to shed light on larger issues involving the flow of raw materials and finished goods at Minoan palatial sites. The small size of the workshop and foundry area makes it likely that only small amounts of metal were processed at a single time. This suggests that large volumes of metal (or larger objects) were processed at a different metalworking facility in or near the town. Moreover, the single LM IA phase during which this workshop was in operation further limits the scope of its operations, and other workshops must have been responsible for processing earlier and later objects. All of this indicates that metalworking facilities at Gournia were to some extent decentralized and directly related to the changeable structure and composition of the town.

The size and dating of the workshop suggest that it was not the sole metal workshop active during the period.

A Late Minoan IA Kiln Complex at Gournia
Brian Kunkel, Hunter College

During the 2014 excavation season at Gournia, a series of ceramic kilns was discovered in Block E on the northwestern end of the site. Together the kilns formed an important complex that included multiple phases of construction. This paper serves as a preliminary presentation of the kiln complex and the associated excavated material, which was examined in detail over the course of the 2015 - 2017 study seasons.

The complex dates to the LM IA period, and the kilns generally conform to the cross-draught channel type, which is a distinctly Minoan design. In these kilns, hot air from the fuel chambers is directed across long U-shaped channels that slope upward into a firing chamber. Although this general type is known from other sites in Crete, there are none that represent so many individual phases of

construction. The successive operation of these kilns within a single period and the evidence for periodic relining have provided important new insights regarding the design and lifespan of these structures, which was likely short and perhaps seasonal. In total, 16 separate kilns were identified, which consisted primarily of fragmentary channels and fuel chambers. The individual units were constructed in succession on the same spot over a period of many years. In most cases, the clay-lined substructures of earlier defunct kilns were filled with soil and new ones were built directly over top of them. Much of this fill soil had been taken from earlier dumps located nearby, and none of the pottery found in the channels or fuel chambers appears to have come from actual firing episodes.

At some point in the LM IA period, judging by the latest pottery, the complex went out of use and the entire area was covered with soil. This event appears significant because it generally coincided with major changes in the urban character of the settlement including the remodeling of the palace, the restructuring of the town, and the cessation of activity at the newly discovered metallurgical workshop. The transformation of the site that occurred at the end of LM IA and the abandonment of two important industrial facilities in the Northwest Area point to a significant shift in the political and economic history of Gournia.

The Plasters of the Gournia Palace and Town
Anne P. Chapin, Brevard College

The Minoan site of Gournia on Crete, famous for its well-preserved Neopalatial town and small palace, is not known for its plasters, as no decorative wall paintings were discovered and published from the site in the course of its excavation by Harriet Boyd Hawes from 1901-1904. Yet in her 1908 publication, Hawes notes that plaster was in fact used extensively as a construction material to cover door jambs and walls, as an overlay to stone and brick, as a component of ceiling and roof construction, and as pavements. Of this plaster, little is visible today, so the discovery of floor, wall and construction plasters in Protopalatial, Neopalatial, and Final Palatial contexts during renewed excavations of 2010-2014 both confirms and clarifies Hawes's brief descriptions, and offers significant new information.

This paper offers a diachronic overview of the Gournia plasters from both palace and town. A description of the monochrome lime plasters found in Protopalatial contexts is followed by an overview of the floor and wall plasters found in Neopalatial contexts. Most interesting are fragments of fine "tarazzas" discovered in palace fills. These floor fragments are comprised of layers of hard lime plaster mixed with tiny waterworn pebbles of uniform size. The finished surfaces are monochrome but tinted, with shades ranging from light gray to nearly black, resulting in very fine and highly decorative but durable floor surfaces.

Wall plasters from the palace survive only in small fragments but preserve colors ranging from red and yellow ochres to Egyptian blue. A few fragments preserve painted bands demarcated by string lines impressed into damp plaster. Such marks are generally interpreted as evidence that Minoan artists employed the true (buon) fresco painting technique, but the Gournia wall fragments also offer indications that pigments were applied when the plaster was dry, a technique known as fresco secco. Fragmentary remains of plaster tables painted with abstract

decorative designs were also found in the palace. Lastly, plaster was found in Final Palatial contexts. The in situ plaster/pebble floor of House He, dated to LM III, preserves a coarser form of tarazza: the plaster layer is much thinner than the earlier Neopalatial tarazzas and the pebbles are irregular; overall, the quality seems less fine.

The Minoan State of Gournia during the Neopalatial Period
L. *Vance Watrous*, University at Buffalo (SUNY)

Drawing upon the recent work of the Gournia Project, this paper describes the political and socioeconomic nature of Neopalatial Gournia and its territory.

During MM III—LM IA, the new palace continued to host cult banquets. Following the Theran eruption, cult offerings were made in the area of the baetyl at the southwest corner of the palace. The complex was extensively remodeled in LM IB: ashlar façades were added to the western side, the southwest wing (rooms 13, 14, 15, 17, 18), and a porch facing both the central court and, to the east, the peak sanctuary of Ephendi Christos. The discovery of a Linear A tablet indicates that the LM IB palace fulfilled the administrative role of making disbursements. Other remains show that the palace was a center of bronze production and cultic activity. At this time, large local groups met in the palace central court for ceremonies involving drinking.

During LM IB, Gournia, Mochlos and Pseira were closely linked economically: the architects working at Gournia, Mochlos and Pseira used the same quarry at Mochlos; some of the LM IB pottery at Gournia and Pseira was now made in Mochlos. All three sites have local shrines: Gournia (in the palace), Pseira (House AC) and Mochlos (Building B.2). After the Theran eruption, a peak sanctuary was established near Gournia on the peak of Ephendi Christos, the highest spot in East Crete. Gournia, Pseira and Mochlos are all clearly visible from the sanctuary. The sanctuary produced LM IA and LM IB pottery from Gournia and Mochlos, clay figurines, beach pebbles and Theran pumice. In LM IA - B the Gournia coast was protected by a fortification wall and street, the latter finally blocked in LM IB. At the same time the palace was strengthened by two megalithic walls on its east facade and a tower (room 35) added onto its northeast corner.

Some scholars have suggested that Knossos had political control over all of Crete in LM IB. A comparison of Gournia with areas undoubtedly under Knossian control, such as Vathypetro, Phaistos, Agia Triada, and Galatas, show crucial differences. At these latter sites, local LM I cult complexes were stripped of their religious functions, were abandoned, or become industrial work areas. In contrast, LM IB Gournia, Pseira, Mochlos and and other sites in the northern Isthmus and were parts of a single politically independent Minoan state with its own regional economic network and religious center.

SESSION 7K: Workshop
Conservation and Conservation Science in the Museum and in the Field

MODERATORS: *Lisa Ayla Cakmak*, Saint Louis Art Museum, *Susanne Ebbinghaus*, Harvard Art Museums, and *Kenneth Lapatin*, J. Paul Getty Museum

Workshop Overview Statement

The conservation of fragile archaeological artifacts and monuments plays an important role in both the museum and the field. Increasingly sophisticated scientific technologies enhance our knowledge of the past in previously unimagined ways. Just as the scientific tool kit of archaeology has expanded, material scientists now extract ever more complex information from ancient objects, reconstructing ancient technologies, the original appearance and burial conditions of objects, the contents of vessels, and much more. Continuing the series of successful workshops organized by the AIA Museums and Exhibitions Committee, this workshop will bring together conservators and conservation scientists working in the field and in the museum to compare notes and explore future avenues of collaboration. How does the field lab differ from the museum lab? Which priorities, opportunities, and constraints drive conservation work in these two settings? In which ways might the field conservator's response to the necessities of an excavation provide a useful model for the museum conservator, and how might educational and other considerations guiding conservation work in a museum benefit conservation work on an archaeological site? In materials science, the resources in the field are very different from those of a large museum lab. There are other, more basic differences concerning the material available for analysis, such as quantities, sampling procedures, and the documentation of find contexts. How does access to greater numbers of objects (and potentially more and larger samples for destructive analysis) weigh against access to an array of high-tech instruments? How might the different approaches necessitated by the different working conditions complement one another? How do they impact the study of objects from excavations that have entered museum collections? Finally, in which ways can conservators and scientists join forces with archaeologists to address the major challenges created not only by the recent destructions of archaeological monuments in Iraq and Syria but also by changing environmental conditions, tourism, and the relentless tooth of time?

PANELISTS: *Sanchita Balachandran,* Johns Hopkins Archaeological Museum, *Patrick Degryse,* Katholieke Universiteit Leuven, *Andrew Shortland,* Cranfield University, *Katherine Eremin,* Harvard Art Museums, *Susanne Gaensicke,* J. Paul Getty Museum, *Richard Newman,* Museum of Fine Arts Boston, *Gianluca Pastorelli,* Northwestern University, *Marc Walton,* Northwestern University, *Thomas Roby,* Getty Conservation Institute, and *Carol Snow,* Yale University Art Museum

SESSION 8A
Greek and Roman Architecture

CHAIR: *Mont Allen*, Southern Illinois University

The First Stone Temples of Mainland Greece, in the Mid-Seventh century B.C.E. Corinthia. A Critical Revision
Alessandro Pierattini, University of Notre Dame

This paper presents a critical revision of the reconstructions of the two early temples at Corinth and Isthmia (mid-7th century B.C.), which were the first monumental stone-and-tile buildings of mainland Greece. Their remains are so similar that they are considered as two almost-twin products of the same culture. In particular, I focus on two issues that are crucial to reconstructing their original architectural features. One is the existence of a peristyle, which has been proposed for the temple at Isthmia (Broneer; Gebhard; Hemans) based on stone blocks and in situ evidence, but has been questioned based on a different interpretation of the blocks (Rhodes). The other issue concerns the top of the cella wall and its connection to the roof.

In order to reassess the peristyle issue, I have reexamined the evidence from Isthmia, and in particular the blocks that were interpreted as a stylobate (Broneer), or alternatively as a toichobate (Rhodes). My analysis of these blocks shows that they were laid down while still provided with a protective extra-layer of stone, which was not completely removed from the top of some of the blocks. Consequently, their uneven upper surface would not have provided a suitable base for a wall, which contradicts the toichobate hypothesis and leaves open the stylobate option.

As concerns the top of the wall, I have reexamined the relevant blocks and the eaves tiles from Corinth and Isthmia. The blocks from Isthmia that are shaped like a Doric geison are surely from a top course. However, I question their placement on the cella wall underneath the roof of the supposed peristyle (Hemans), because the slope of their projecting parts contradicts their proposed function as brackets. Other blocks from the top courses are those provided with cuttings for wooden beams, which are found at both sites. In both temples, the non-peripteral reconstruction (Rhodes) implies a cornice in which these blocks alternate with the geison blocks (Isthmia), or with their supposed counterparts (Corinth). My analysis of the blocks from Isthmia reveals inconsistencies with this sequence. Moreover, my estimates suggest that in both temples such a sequence would cause spacing of the roof beams to be hardly consistent with that of the eaves tiles. Therefore, I suggest that the two kinds of blocks belonged to different courses.

In conclusion, my work demonstrates inconsistencies in the hypotheses so far proposed and suggests a different direction for reconstruction.

Insights into Early Archaic Greek Architecture from Experimental Replications of Disk Acroteria
Philip Sapirstein, University of Nebraska–Lincoln

The origins of the Greek architectural styles have been debated since the 19th century. Recent scholarship has examined the technological changes that occurred in seventh and early sixth centuries B.C.E., when construction shifted from perishable materials to stone, and temples were enlarged to monumental proportions befitting a deity. However, the impact on Greek architecture of a major innovation of the seventh century, the terracotta roof, has yet to be fully understood. In a past AIA lecture, I examined the earliest class of Archaic acroterial decoration—the disk acroterion—and argued that potters played a previously unrecognized role in the design. Over the past year, I revisited this hypothesis from a fresh perspective, working with potters in the studio to fabricate a full-sized replica.

The disk acroterion is widely attested in Mainland Greece from the latter seventh through the sixth centuries. The best known example from the Heraion at Olympia, ca. 600 B.C.E., is 2.3 m in diameter and 700 kg, yet was constructed and fired in a single piece. My examination of the ancient fragments revealed telltale signs of wheel construction, leading me to conclude that potters experienced with making large vessels also oversaw the design of early temple roofs.

Experiments in 2016–2017 with potters at UNL were aimed at testing the hypothetical construction sequence inferred from the ancient fragments. However, the proposal of physically recreating a disk raised a host of new questions beyond the use of a wheel. Where would we acquire suitable clay? How would we construct a turntable large enough for a replica more than 1.2 m in diameter, weighing 200 kg? How could we shape the profiles that decorate both the outer face and the rear mantle? We began by making a series of small disks, addressing these questions in sequence and iteratively accruing the skills needed to complete the entire production sequence.

The experiments concluded successfully in a full-sized replica. The practical experiences cast new light on many areas, particularly the technologies that early Greek builders and potters must have mastered before they could manufacture and install such elaborate terracotta objects. The Greeks who created disk acroteria must have possessed a sophisticated understanding of lathes, paving the way for the development of round shafts and capitals in stone. The experiments also made clear that seventh-century architects (and potters) could build cranes capable of lifting more than a metric ton.

Temples with a Double Cella. New Thoughts on a Little-Known Type of Temple
Ugo Fusco, Sapienza, Università di Roma

In the context of studies on Greek architecture, a specific analysis of cult structures of this type is still lacking as the attestations have been considered too limited. A recent study by the present author, however, has shown that the situation is more complex. A significant number of archaeological remains have been recovered, brought to light mainly during recent excavations. From the point of view of the literary tradition, the main source is the Periegetes Pausanias. He terms

temples with a double cella: ἱερὸν διπλοῦν, ναὸς διπλοῦς, and οἴκημα διπλοῦν. A total of five examples are mentioned: the urban building dedicated to Apollo Karneios at Sicyon (2.10.2); the city temple of Asclepios and Leto with her children (Apollo and Artemis) at Mantinea (8.9.1); the sanctuary of Aphrodite and Ares in the proaston of Argos (2.25.1); the temple of Eileithyia and Sosipolis at the Panhellenic sanctuary of Olympia (6.20.3) and the sacred building known as the Erechtheion on the Athenian acropolis (1.26.5). The choice between the terms ἱερὸν, ναὸς, and οἴκημα was probably motivated by the type of ground plan: ἱερὸν/ναὸς when the building belongs to a temple type that we could describe as traditional, and οἴκημα only where there are evident architectural anomalies. From the archaeological point of view, about twenty examples have been collected on the Greek mainland, the islands, Asia Minor and Italy from Archaic to Imperial period. Based on the data from the literary tradition and the archaeological finds we can distinguish between three basic models for the construction of the cult buildings in question: A – with cellae and entrances arranged in parallel, with a shared wall; B – with cellae and entrances on the same axis; C – with symmetrically opposed cellae and independent entrances. These preliminary considerations on the layout of the buildings are enriched with reflections on the religious ceremonies practiced in these buildings and a discussion of the divine association present when known.

Pergamum's Distinct Doric "Dialect" in the 3rd Century B.C.E.: Rise and Diffusion Through Macedonia to Athens

Lena Lambrinou, Acropolis Monuments Restoration Service, Athens

In Late Classical and Hellenistic times, a renewed interest in the Doric order within Asia Minor's previously Ionic-dominated centers drove this originally mainland-Greek style to become the region's foremost architectural type. A distinct Doric form consequently developed in the fourth and especially third centuries B.C.E., which exhibits key differences—particularly in its triglyphs and capitals—from the High Classical Doric style epitomized by the Doric temples of Attica. The Hellenistic architects of Western Asia Minor, especially at Pergamum, developed their own Doric "dialect" as a new form of visual expression, which went on to influence architectural designers outside their own immediate region.

In northern Greece, the Doric order in its Classical form had already been known since the mid/late fourth century B.C.E., when Macedonian column capitals were styled after Skopas' capitals (ca. 370 B.C.E.) in the temple of Athena at Tegea. However, the design of recently excavated Macedonian funerary monuments, dated to the third century B.C.E., reveals the presence of peculiar Doric forms identifiable with the new eastern Doric style—a connection indicating a diffusion of this fresh form into mainland Greece, which may have arisen from Macedonia's newfound contacts and political dominance in Asia Minor.

"Pergamene Doric" did not develop from traditional mainland Greek models, but emerged separately, deriving its stylistic details from one well-known building in Asia Minor—the Archaic temple of Athena Polias at Assos—previously the region's only Doric-style temple. Clear differences observable between traditional forms of Doric capitals and those of the new Pergamene style point to a lack of

local Anatolian knowledge concerning the Doric order's Classical mainland conventions.

The present paper argues that as the eastern Doric style took hold in Macedonia, as well as in Athens and other mainland or Aegean areas, Hellenistic architects from Pergamum now became the predominant trend-setters, thus replacing the prior prevailing influence of southern Greek designers and filling a gap in the architectural production of the main Greek centers then experiencing a great architectural decline. In Athens, one of the first buildings known so far to have exhibited the singular eastern Doric style is a large stoa-adorned building of the third century B.C.E., which was later dismantled and its material reused for the Roman repair of the Parthenon's fire-damaged interior colonnade.

Stymphalos: the Ashlar Building

Gerald P. Schaus, Wilfrid Laurier University, and *Alice Clinch*, British School at Athens

A large structure built with impressive ashlar foundations near the foot of ancient Stymphalos' acropolis contained a rich array of objects when abandoned in the first century C.E. Its major finds were described briefly in a preliminary report by Williams and Cronkite-Price (Mouseion 46 [2002] 145-151) after excavations ended in 2001, but otherwise this remarkable discovery has largely been overlooked.

Evidence suggests that the Building had three major phases: Late Classical, exhibited by the ashlar wall construction; Hellenistic (third - earlier second century B.C.E.), highlighted by a door decorated with large bronze bosses typical of Macedonian chamber tombs and a faux-marble painted plaster wall reminiscent of Pompeian first style; Early Roman Imperial, based on whole vases left shattered among abandonment debris, two coins of Caligula, well-dated lamps and some Roman fine ware. Other notable discoveries include a large pile of salt-water scallop shells presumably for an expensive meal since it is two-days' walk to the coast, an "andron" with possible fountain together with a deposit of loom weights, four square marble weights, and especially puzzling, an iron sword in its scabbard along with a round bronze shield of Greek type. These finds suggest destruction and abandonment, not evidently by fire or war, but some natural catastrophe. The thick wooden door with bronze bosses was split across its middle in two pieces, suggesting the force of the catastrophe, which is otherwise unrecorded. The low-level of habitation at ancient Corinth following its destruction by Mummius in 146 B.C. has become clearer in recent years. Stymphalos likewise suffered at Roman hands judging from the destruction of its acropolis sanctuary at the same time, but the Ashlar Building in the lower town provides evidence for the continued use of a substantial Macedonian-era structure down into the early Roman period. Reconstructions of the Building's rooms, the paneled faux-marble wall(s) and the unexpected Macedonian boss-decorated door panel are offered, together with an interpretation of the final use of the Building.

Confronting Vitruvius: The Geometric Language of the Roman Theater Design.
Wladek Fuchs, University of Detroit Mercy

The paper presents the new evidence of the geometric language used by the ancient architects to design the Roman theaters.

The theater archetype is clearly recognizable in all extant structures of this type, though their layouts vary significantly. The geometric model described by Vitruvius fails to explain all of them, but it has been believed nevertheless that the ancient architects generally followed the Vitruvian principles, adjusting them where needed.

The current study is based on the new three-dimensional laser scans of several theaters. The analysis of thus obtained data of unprecedented precision shows that Roman architects did not use the Vitruvius guidelines, but utilized in the design process a much more flexible and adaptable geometric system.

The principal component of the Vitruvian model, the 12-sided regular polygon, can be identified in the plan of only a few Roman theaters. The research shows that in the majority of structures other regular polygons, not mentioned by Vitruvius, were used to delineate the geometry of the cavea. The most commonly found are the nonagon (9-sided polygon) and heptagon (7-sided polygon). They were used, despite their greater geometric complexity, because they presented significant design advantages over the Vitruvian dodecagon.

Furthermore, the layout of the scaenae frons was not based on the geometry of the dodecagon as presented by Vitruvius, but a modular grid. It was used to locate the axes of the hospitalia and other elements of the composition, as well as to construct the entire proportional system for the design. The architects utilized for this purpose the simple geometric properties of the Pythagorean triangles.

The variety of polygons used in the layout of the cavea, and the plasticity of the grid system found in the scaenae frons of the Roman theaters, show how the ancient architects used in their designs a geometric language significantly more flexible than the Vitruvian model. Their design methodology resonates much better with our knowledge of the ancient theater structures: they are all similar, but each one is unique.

The richness of the geometric language gave the architects an opportunity for an original expression within the constraints of the building archetype. It allows us now to recognize different "design schools" as well as their extents in the Roman territory. The research offers a unique insight into the ancient design practice of the Roman theaters, recognizable by their regular and yet complex geometry, and found across the entire Empire.

SESSION 8B: Workshop
Teaching the Roman Provinces in North American University Classrooms

MODERATORS: *Elizabeth M. Greene*, University of Western Ontario, and *Matthew McCarty*, University of British Columbia

Workshop Overview Statement

This workshop focuses on developing strategies to overcome the particular challenges facing educators in North America who want to include material from the Roman provinces in their undergraduate and graduate teaching. At the 2017 Annual Meeting in Toronto, members of the Roman Provincial Archaeology Interest Group flagged a common set of problems they encountered in their pedagogy and expressed a strong desire to address these issues by developing resources and testing new strategies in the classroom that could be shared with the wider AIA community in 2018. The proposed workshop will feature a small group of speakers from the IG (the panelists named here) who will present initiatives and resources meant to address these challenges, as well as open discussion of teaching practices and possibilities.

Approaches and subjects to be discussed include:

1) Creating web content as a pedagogical exercise with students: This discussion point fits well with "active learning" initiatives occurring at many universities right now. Incorporating this type of pedagogy helps student learning and creates web resources for future use.

2) Generating web resources for academics to access when planning courses: Suggestions for useful resources include maintaining lists of fellowships for those working on provincial subjects (since so many mainstream North American fellowships focus on the Mediterranean core), sharing syllabi, creating contacts for student opportunities on provincial excavations and in research institutes, announcing new publications, and creating outlets for scholars to access more obscure publications not often found in North American libraries.

3) Creating a forum for students and supervisors to find collaborations with European scholars: We often hear that students and supervisors have a more difficult time finding potential collaborators in countries beyond the Mediterranean core of the former Roman Empire where professional societies such as AIA have well established relationships. We hope to be able to provide a resource to connect North American scholars to lesser-known resources and opportunities.

4) Incorporating provincial material culture into themes already popular in Roman Archaeology courses: This initiative will help introduce scholars to the wide range of material culture in provincial contexts and urge diversification away from the sites typically used to exemplify the provinces.

PANELISTS: *Astrid Van Oyen*, Cornell University, *Sarah Craft*, Carleton College, *Kimberly Cassibry*, Wellesley College, *Robert Collins*, Newcastle University, *Susan Alcock*, University of Michigan, *Elizabeth Bevis*, Johns Hopkins University, and *Prem Sai Ramani*, University of Western Ontario

SESSION 8C: Colloquium
New Research on Funerary Monuments in Rome

ORGANIZER: *Dorian Borbonus*, University of Dayton, and *Regina Gee*, Montana State University

Colloquium Overview Statement

Research on the funerary monuments of Rome goes back to the very beginnings of archaeology as a discipline, in the 17th and 18th centuries. As a result of such a long disciplinary tradition, this line of inquiry has produced an extensive body of literature, but it has also been characterized by traditional approaches that tend to prioritize elite culture and established methodologies. Alongside this research profile, however, there is cutting-edge work that brings novel approaches to newly-discovered and long-known evidence alike. This panel brings together various ongoing projects in Rome by American, Italian, Dutch and German research teams in order to highlight new questions and the methods used to answer them.

The research questions asked by the panelists naturally display a certain range, but there is also common ground. They pursue themes like the relationship between funerary monuments and the suburban topography, the pragmatic challenges of tomb construction, and the symbolic content of funerary architecture and imagery. Despite this variety, all panelists are concerned with the way funerary monuments were used and what they can reveal about the history of the city. They conceptualize funerary monuments within complex frameworks of space, usage and belief, all of which change over time.

The methodologies used to address these questions employ the full range of excavation techniques and digital technologies to generate new knowledge about sites that have been investigated, in some cases, for decades or even centuries. Using photogrammetry, laser scans, micro-stratigraphic excavation, osteology, GIS, and photorealistic 3D models does not, however, imply negating time-tested methods that have arguably also contributed to our knowledge of ancient funerary culture, like iconographic analysis or classical *Bauforschung*. The way forward that we chart here thus envisions a combination of innovative and established lines of inquiry.

The upshot of this recent work is that it holds the potential to supersede the current tendency to focus research on the small pockets of evidence that are available in a city like Rome. All panelists present particular contexts and take up details of reconstruction, but also highlight the symbiotic relationship between funerary monuments and the urban population. In combination, they put a holistic approach to the funerary landscape of Rome into practice by opening up a diachronic panorama of the material conditions and human practices in the funerary "belt" around the imperial city.

Revisiting the Monument of Eurysaces in Rome
Crispin Corrado, The University of California, *Albert Prieto*, Loyola University Chicago, and *Max L. Goldman*, Denison University

This paper proposes a reassessment of the late-first-century B.C.E. monument of Eurysaces in Rome, as almost 15 years have passed since the last discussion. From the moment of the monument's rediscovery in 1838, scholars have attempted to explain its external appearance, particularly the rounded cavities that face its remaining three sides. Scholarly assessment, to date, is that the monument was made to resemble, or was perhaps even made up of, a tool or object used in the baking industry. This reading would complement the monument's inscription and decorative frieze, both of which directly reference this trade. That tool or object, though, still eludes us. Named by some a *granarium*, its cylindrical aspects called *modii*, or kneading bins, the monument's shape and appearance have never found a universally accepted explanation. We propose that a reference to the baking industry should not be assigned to the overall form or elements of the monument. Our research has shown that all of the cylinders used in the facade of the monument, those oriented vertically as well as those horizontally, are the shape and dimensions of travertine pieces used in a multitude of contemporary buildings in Rome and Ostia: the monument of Eurysaces was faced with typical building materials of the day. This fact, at the very least, renders the rounded cavities of the monument's exterior less mysterious. Furthermore, we will argue that the monument of Eurysaces has continued to puzzle because scholarly attention has focused on the appearance of the structure as it looks today, and the fact that it is currently preserved to a great height and stands alone in the area. We will show, instead, that the monument was quite typical for the time. The Porta Maggiore area was filled with tombs, in antiquity, many of which were cut short and buried with the construction of the Aurelianic walls. We will also propose a reconstruction of the monument based on scientific research and remains found near the monument, illustrating that it would have looked very different in antiquity. The second portion of our paper addresses the issue as to whether or not the Eurysaces monument was a tomb, as it lacks a burial chamber. Here we offer a new interpretation in light of the changing cultural and funerary traditions in Rome at the time, which have not been fully considered until now.

Circus and Solar Imagery in the Wall Paintings of the Vatican Necropolis
Regina Gee, Montana State University

This paper examines selected wall paintings from funerary monuments located in the trans-Tiberum (Reg. XIV) section of Rome, tombs that have collectively been given the modern name of the "Vatican Necropolis." Once part of a much larger "city of the dead," the tombs consist of a double file of twenty-three brick-faced monuments built on the Vatican plain and hill between the second and third centuries. Both rows face south towards a major arterial road and beyond that, the racing track known variously in the period as the Circus of Gaius and Caligula, the Circus of Nero, or the Vatican circus. Several of the tombs are decorated with images that are unique among the surviving corpus of Roman painting in a funerary

context. Although the subjects are diverse and include racing factions and Egyptian deities, what holds them together as a conceptual set is their solar and cosmic symbolism. I will make a case for this subset of paintings as contributing to a richer spatial experience than is typically considered, one that expands beyond the tomb interior to include the adjacent circus (circus Vaticanus, circus Gai et Neronis). The circus on the Vatican plain, like all Roman circuses, was a topos with richly polyvalent funerary symbolism touching upon chthonic, regenerative and eschatological themes. All of the tombs of the Necropolis might benefit from these sepulchral and cosmic associations of the racing track, and the placement of the surviving double row of tombs reveals a topographical juxtaposition through parallel alignment, not with the Via Cornelia, the road running directly in front of them, but with the spina of the circus further to the south. Some monuments, I argue, deepened the allusive content between tomb and circus though painted decoration using imagery drawn from the established repertoire of motifs in Roman art referencing the circus, the sun, and the seasons. As a set, they are defined by subject matter but were executed at different points across the time span of the construction and use of the tombs, from the earliest tombs in the surviving necropolis to the last one redecorated before the Constantinian fill. Although the subject matter is not typically used for tomb paintings, their richly allusive content can still be placed with the existing experiential context of regular visitation and banqueting by family, friends and dependents who were the practitioners of the ritual surrounding the cult of the dead.

The Construction of Late Republican/Early Imperial Columbarium Tombs in Rome
Silke Haps, Technische Universität Dortmund

In recent years several mass columbaria in Rome could be analyzed with regard to their architecture, building techniques, provenience of the material used, painting, epigraphy, temporary and permanent decoration: starting with two columbaria near the Villa Doria Pamphilj south of the Via Aurelia Antica (the so-called Grande Colombario and the Columbarium of C. Scribonius Menophilus) and followed by the current examination of two columbaria near the Via Appia Antica (the so-called Monumentum Augusti and the columbarium Vigna Codini III). The examination of the latter takes place in the context of a project of the German Archaelogical Institute (DAI), Rome Department (Thomas Fröhlich, Norbert Zimmermann), in collaboration with the Soprintendenza Speciale Archeologia Belle Arti e Paesaggio di Roma, concentrating on the analysis of collective burials in columbaria and catacombs, ranging from the late republican/early Augustan era until late antiquity. The investigation shifted the focus to more detailed analysis of specified examples. Methods of research were chosen according to the size and complexity of the building structures as well as to research questions. The first columbarium that was examined—and the least complex in this group of early large columbaria in the precincts of Rome—was documented with tachymetric and traditional manual methods. Recently made photographs of the formerly removed frescoes were digitally rearranged in the drawings for the contextual analysis of the architecture and its decoration. The more complex columbaria with their in situ decoration were documented by using a laserscanner and the application of

photographs. Drones were used to cover non-accessible parts and the surroundings of the tombs. Research questions concentrate on construction techniques, building phases, processes and usage, topography and adjacent structures for funeral and cultic practice. The contribution aims at outlining first results from the constructional point of view.

New Research on the Cemetery of the Via Ostiensis in Rome
Marina Marcelli, Roma Capitale, Sovrintendenza Capitolina ai Beni Culturali

The archaeological site of the cemetery along the Via Ostiensis in Rome is the best-preserved part of a vast necropolis flanking the ancient street for over 350 meters between the first and second mile. Numerous tombs were discovered by chance during the 18th and 19th centuries near the Basilica di S. Paolo and destroyed without adequate documentation, yielding however considerable epigraphic material. The currently visible sector of the necropolis was exposed during construction work in 1918 and documented with modern scientific methods. The tomb monuments, mostly of the columbarium type, follow the north-south orientation of the Via Ostiensis and were used continually from the first century B.C.E. to the fourth century C.E., evidencing the switch in burial custom from cremation to inhumation. The funerary inscriptions reveal a non-elite population, often coming from the eastern Mediterranean basin.

A new, interdisciplinary research project aims at a complete reexamination of the entire area, the site and its material, ranging from the human remains to artifacts, especially the inscriptions preserved in the Capitoline museums. The collaborative endeavor currently involves various institutions, such as the Sovrintendenza Capitolina and the University of Valencia, along with partners from various academic backgrounds.

Specifically, the project sets out the following objectives:

1. The reconstruction of the ancient landscape and the analysis of the topographic and chronological development of the necropolis. This component comprises the geological and morphological analysis of the area and the creation of a GIS with layers pertaining to the natural formations, preserved archaeological structures and documentation from archival records. Nondestructive geophysical investigations are planned in the area and the sector to the West, in order to locate the course of the Via Ostiensis and the extension of the necropolis towards the Tiber.

2. The analysis of the chronological phases of the cemetery, especially in relation to building typologies and burial customs. This analysis is based on a new, detailed survey of the site with digital technologies that enables to map and study construction techniques and to generate phase plans and 3D models.

3. The analysis of the ancient population from anthropological and social perspectives. The anthropological analysis of human remains in situ, compared to data supplied by a re-examination of the epigraphic material, provides important information about living and health conditions, causes of mortality, ethnicity, social status and professions of the local population in this sector of Rome's periphery.

Mapping the Via Appia
Stephan Mols, Radboud University, *Eric Moormann*, Radboud University, *Christel Veen*, Radboud University, and *Rens de Hond*, Radboud University

The multidisciplinary project 'Mapping the Via Appia' aims at mapping in as many details as possible all archaeological remains along a part of the ancient road, in order to arrive at a cultural biography of the road and its hinterland from Antiquity to the modern era. The project focuses on the ancient road between the modern Via di Erode Attico and Via di Casal Rotondo, a stretch of more than two kilometers that are part of the fifth and sixth miles of the oldest Roman consular road as well as its hinterland. The project started in 2009 and has been sponsored from 2012 until 2017 by the Netherlands Organisation for Scientific Research. Radboud University Nijmegen is the project leader. Together with the Spatial Information Laboratory of the Free University of Amsterdam and the Amsterdam eScience Center a 3D Geographical Information System has been developed that forms the basis for the documentation and reconstruction of this part of the road. Apart from the mentioned partners, Radboud University Nijmegen works together with the Royal Netherlands Institute in Rome, The German Archaeological Institute in Rome, and the Soprintendenza Speciale di Roma.

Part of our project consists of the detailed documentation of all vestiges of monuments along the road, in the nowadays public domain within the two walls erected in the middle of the 19th century to separate the state territory from the private properties in the hinterland. Until now 1.377 sites have been described, photographed, and measured. As far as we can infer from our data so far, the study area contains monuments erected between the middle of the first century B.C.E. and the early third century C.E. but we also encounter changes datable to the late antique era. Later interventions are datable to late medieval times and to the 19th and 20th centuries. Most of the architectural structures preserved belong to funerary monuments, as does the majority of single elements but we also encounter remains of Tabernae and villae. Excavation campaigns serve among others to get a more detailed idea of chronology and the architecture and history of selected tombs along this stretch of the road.

The First Phases of the Tomb of the Scipios: Monument and Landscape
Rita Volpe, Roma Capitale, Sovrintendenza Capitolina ai Beni Culturali

Recent restorations have allowed reopening the archaeological zone around the tomb of the Scipios on the Via Appia to the public after 20 years. On the occasion of this work, the preserved remains of the tomb's façade were studied, which has resulted in a new reconstruction of the façade in its remodeled phase of the second century B.C.E. The new proposal differs from the conventional image of the façade that was perhaps built, according to a hypothesis of Filippo Coarelli, by Scipio Aemilianus. The close observation of the traces on the tufa bank into which the tomb was built has also permitted to distinguish at least two older phases: the first phase may be as early as the original construction of the tomb itself and the second may date to the end of the third century B.C.E., when the family of the Scipios reached its highest glory.

As known from other examples around Rome, the funerary monuments of aristocratic families were generally situated on the borders of their suburban estates during the Republican period. Therefore, it is quite probable that the tomb of the Scipios was constructed within a property of the family that was certainly also equipped with a central building (villa?) and a "family" temple. Indeed, the son of Scipio Barbatus, consul in the mid third century B.C.E., constructed a temple of Tempestates that is attested to have stood on the via Appia until the fourth century C.E. The "monument" of the Scipios was therefore a monumental complex, consisting of tomb, villa, and temple: a powerful symbol of the family's importance for anyone who encountered it on the Via Appia after departing from the Porta Capena.

According to a well-known passage of Cicero, a series of famous tombs flanked the Appian way: "When you come out of the Porta Capena and see the tombs of Calatinus, the Scipios, the Servilii and Metelli, do you think them wretched?" (Cic. Tusc. 1.13). It seems like these properties and family graves are all related to distinguished and victorious generals who in the mid-third century B.C.E. achieved triumphs during the First Punic War. This cluster therefore suggests the creation—maybe at first unplanned, but then intentional—of an almost "triumphal" landscape along the Appian way, between the Porta Capena and the Temple of Mars.

SESSION 8D: Colloquium
Beyond the Walls: Bridging the Rural/Urban Divide in the Study of Roman Landscapes

ORGANIZERS: *J. Andrew Dufton*, New York University, *Paul S. Johnson*, University of Sheffield, and *Julia Hurley*, Brown University

Colloquium Overview Statement

A recent trend in studies of the Roman world looks to move beyond the commonly held binary oppositions — urban/rural, elite/peasant, Roman/native, provincial/metropolitan — that have traditionally characterized archaeological scholarship. These categories can sometimes serve a useful teleological purpose in defining areas of study. Yet they remain unhelpfully reductive in their ability to address broad questions about life in the Roman world, creating divisions where a holistic approach might better serve to enhance, or fundamentally revise, our understanding of past society. The urban/rural divide, in particular, is one of the most pernicious in work on the Roman Empire, a result of historical interests in urban sites within Italy, colonial attractions to the monuments and mosaics of well-preserved regional capitals, and the methodological and logistical limitations of fieldwork. The continued emphasis of archaeological projects on exceptional urban centers has maintained a sharp contrast between life inside and outside the city walls. Logistical or political constraints often exacerbate this split; permits are assigned for excavation of a city or a survey of its hinterland—but far less frequently for both. Finite resources and expertise further restrict many projects to a pragmatic choice whereby research is focussed solely upon one type of landscape.

The artificial division of landscape into urban/rural elements fails to acknowledge the interdependence of cities and their territories, the daily movement of peoples between the two, and the ancient juridical conception of city and hinterland being a single, continuous, and coherent entity. Many scholars across periods now acknowledge that the boundaries between the city and its environs were permeable and shifting; far fewer have interrogated the liminal spaces between the two, directly transported a discussion of the Roman countryside into an urban context, or explored the far-reaching influences of a provincial capital on its surroundings. This session focusses on new, holistic ways of understanding Roman landscapes, with papers drawn from a number of scholars of varying disciplinary and geographic interests. The assembled presentations account for both the well-trodden cities of central Italy and provincial perspectives. Taken collectively they demonstrate — through a broad range of case-studies and methodological approaches — that the study of either urban or rural essentially decontextualizes both. As a conceptual whole, life in the countryside was hardly as bucolic, nor urban life quite so frenzied, as we have often assumed. The session thus reorients the discussion of the Roman city as a place not in opposition to the surrounding countryside but rather in partnership with it.

DISCUSSANT: *Peter Van Dommelen,* Brown University

The Impact of Roman Urbanism: Approaching an Understanding of the Roles of Cities within Provincial Landscapes
Paul S. Johnson, University of Sheffield

Studies of Classical cities have traditionally focussed upon defining the form and limits of urban areas. The idea of cities as bounded spaces, separate and distinct from the landscape around them, is a persistent one within archaeological and historical literature. Typically, major projects have focussed on excavations of urban cores. One only need think of the intensity of research activity undertaken by projects focussed on cities such as Pompeii, Empuries, or the UNESCO Save Carthage campaign, in order to compile a list of critically important ancient sites for which our understanding barely extends beyond the "urban core".

In contrast to studies focussed exclusively on urban sites, this paper proposes a manifesto for the study of human-landscape interactions which acknowledges the seamless nature of rural/urban transition. The data available for the study of the gradually changing continuum from an urban core into a less-intensively occupied surrounding area will be assessed and interrogated using specific examples primarily from the Western Mediterranean—Tarraco (Tarragona, Spain), Ammaia (Sao Salvador da Arramenha, Portugal), Falerii Novi (Faleri, Italy). This concept of an "occupational continuum" underpins a reading of cities as merely abnormally intensive foci of population and activity, acting as nodes within geographically extensive social, political, and economic systems.

The resulting discussion will situate these spaces as integral and inalienable elements within the broader provincial landscapes of the Roman Empire. This understanding of provincial landscapes puts forward an agenda which demands

not only that more extensive and continuous areas be considered as the subjects of study, but also that the concept of "city and hinterland" is a needlessly hierarchical one. An alternate model, emerging directly from this analysis, acknowledges the inherent interdependence between urban centres and the rural areas which sustain them.

Breaking the (Sub)Urban Spell: the Case of Rome and its Hinterland
Robert Witcher, Durham University

It was only as a result of the pioneering work of the South Etruria Survey (c. 1955–1975) that proper attention was first focused on the rural landscape of Rome's hinterland, recognising that it was both populated and productive. The study of Rome and its territory, however, remained two distinct domains. From the mid-1990s, partly inspired by Morley's Metropolis and Hinterland and the British School at Rome's 'Tiber Valley Project', efforts were made to assess the social and, especially, economic impact of the city on its immediate territory. This conceived of urban and rural as a single integrated system, though maintained a strong distinction between them. Similarly, concepts such as Witcher's Extended Metropolis that argued for an urbanisation of the countryside, and Horden and Purcell's The Corrupting Sea that sought to 'ruralise' urban settlement, seem to prioritise one community over the other. Most recently, attempts have been made to blur the urban-rural dichotomy with emphasis on peri-/sub-urban spaces, though this arguably only puts urban and rural at either end of a spectrum. How, therefore, can the fundamental and enduring opposition of urban-rural be addressed?

This paper reviews approaches to urban-rural relations through the case study of Rome and then turns to the themes of mobility and connectivity to examine how a perspective based on people and networks might offer a more integrated and innovative way forward. The case of Rome is both exceptional and paradigmatic. Its scale and political centrality distinguish it from all other cities of the Roman world, yet it inevitably functions as a model for the interpretation of other cities. Rethinking the relationship between Rome and its suburbium therefore opens the way for new insights into provincial cities as well.

The Settecamini Archaeological Project and the Fortunes of an Ancient Way-Station
Margaret M. Andrews, Brown University, *Claudia Moser*, University of California Santa Barbara, *Patrizia Gioia*, Sovrintendenza Capitolina ai Beni Culturali, and *Francesco Maria Cifarelli*, Sovrintendenza Capitolina ai Beni Culturali, and *Domenico Palombi*, Sapienza-Università di Roma

The Settecamini Archaeological Project is focused on an ancient way-station along the via Tiburtina, halfway between the ancient cities of Rome and Tibur. Although once approximately 10 Km outside of the imperial capital, the modern neighborhood is now within the municipality of Rome. The area was first excavated in a rescue campaign during the late 1970s and early 1980s that exposed the ancient highway (via Tiburtina) itself. More recently, limited excavations during

the 2000s have provided a clearer impression of the mixed use of the site, which, in addition to productive and commercial facilities, had a long history of funerary use, including a fourth-century Christian martyr cult in a small catacomb cemetery. These most recent excavations have raised broader questions about the social, economic, and political history of the area that we hope to answer with further archaeological work: When and why did the way-station first emerge? What services were offered there (regional markets, inns, taverns, blacksmiths, carpenters, etc.)? What was the role of religion for communal identity? How did the site grow and transform over time? What larger factors (political, economic, religious) affected this growth and transformation?

By exploring the diachronic history of the site and the services it offered, we aim to shed light on broader regional settlement patterns and how they changed in the longue durée. As a way station, the fortunes of the community were tied to the movement of people and goods between the major urban sites of Rome and Tibur. Our project therefore considers local conditions in the broader context of both urban trends, and the changes in the villa landscape of the area, to understand how a small, independent, and permanent community emerged and thrived as a result of both relationships with its surrounding rural landscape and its connectivity to major urban sites. In clarifying the deep history of an ancient way-station, one of the least-known ancient settlement types, the Settecamini Archaeological Project contributes to a fuller understanding of the relationships between city, suburb, and countryside in antiquity.

Going to Market on the Northern Frontier: Location Analysis and the Identification of Towns in the Rural Economy

Eli Weaverdyck, University of California Berkeley

In the ancient world, city and countryside were closely entwined in an administrative relationship, with each city governing a carefully delimited territory. For people living in the countryside, however, the administrative functions of the urban center may have been less important on a day-to-day basis than its economic functions. For them, cities were concentrations of non-agriculturalists who might buy their surplus produce. From this perspective, the legal status of a town becomes less important than the number of its food-consuming inhabitants and its purchasing power.

Rome's northern frontier was full of places with large numbers of consumers and a steady supply of money: forts and fortresses with their attendant vici and canabae lined the banks of the Rhine and Danube. Peasants wishing to convert their produce to coin might have found garrison settlements to be attractive markets. If they were, this would make Rome's northern frontier one of the more densely urbanized regions of the Empire. There are reasons to be cautious, though. Garrison settlements were usually populated by immigrants who had few social ties to the countryside and much of their food requirements were satisfied through military channels.

Unfortunately, it is difficult to demonstrate economic exchange from traditional archaeological materials because both the produce being sold and the containers in which it was transported were usually perishable, while the coins were often

spent in the town. Spatial analysis offers a way forward. Rather than relying on proxies to indicate an economic relationship, spatial analysis relies on distance, a structural constraint that could never be completely avoided in any exchange. Peasants who went to market frequently would have tried to minimize the time they had to travel by living closer to the marketplace while those farther away would not have been able to visit as often. By analyzing the distance between rural settlements and various potential markets—while simultaneously taking into account other factors that influenced settlement location—it becomes possible to estimate how important marketing was to the people living in the countryside. By varying the types of places considered as markets we can determine which places attracted rural settlement. In this paper, I will analyze the settlement pattern along the Lower Rhine frontier to test the hypothesis that garrison settlements functioned as markets for local produce.

The Periphery of Lepcis Magna: A Multifunctional Landscape
Andrea Zocchi, University of Leicester

The paper will focus on the suburban and periurban area of Lepcis Magna (Libya), one of the most iconic cities of Roman Africa. Although the core of the city has been deeply analyzed, its periphery has been, up to now, poorly studied and described. The analysis of more than 300 sites (from recent unpublished surveys of the Archeological Mission of Roma Tre University) located beyond the ancient urban fabric, together with new archival data, will contribute to a new understanding of the development of this peculiar city, inform a wider debate about urban history, and elucidate the nature of its urban/rural boundary.

Aside from cemeteries, ancient Roman suburbs often contained a range of other monument types; some key aspects of social life, often difficult to identify within the city, may be made clearer by the analysis of these hinterland areas. Such studies can change our perception of the dynamics of mortuary practices, productive activities, religious practices at extra-urban sanctuaries, and the different choices made by authorities and communities to control and to exploit these areas. The Lepcitanian landscape represents in this sense an exemplary case and this paper will indeed focus on several aspects of its countryside. Mausolea and necropoleis will be related with the road system, the general development of the city, and the numerous lavish villae in its hinterland. The productive landscape, essentially characterized by farms and limestone quarries, will be analyzed and linked with the economic expansion or contraction of the city. The paper will also take into account the issues related to the water supply of Lepcis, and the water control management of the widian (seasonal streams) outside the city. Moreover, traces of religious and military structures will help to define the general layout of the area through the centuries. Finally, in combining together all these aspects it will be possible to better define our perception both of the city and of its rich hinterland areas and better understand the links between them.

SESSION 8E: Colloquium
Figure-Decorated Vases and Identity

ORGANIZERS: *Mark D. Stansbury-O'Donnell*, University of St. Thomas, and *Thomas H. Carpenter*, Ohio University

Colloquium Overview Statement

The papers in this colloquium address the question, could figure-decorated vases, either because of shape or specific imagery, or both, serve as markers of identity for some groups of people (family, clan, "club," civic or ethnic group, religious practice, military association). In addition, they explore what sort of evidence we need to affirm vases as an expression of identity for a discrete group of people?

Clearly we can only approach these questions when we have reliable provenances for the vases. Tombs in Etruria and South Italy are some of the richest sources of figure-decorated vases, and an underlying assumption for this colloquium is that objects placed in tombs were not chosen at random. This is not to say that domestic contexts and sanctuaries cannot be important sources as well, but for these too we must assume that the choices of vases and images were deliberate. A single vase or a single tomb can tell us little unless we can view it in a broad social and archaeological context.

Four papers in this colloquium deal with Attic vases in Etruria. The first paper addresses the sudden appearance and popularity of the Amazonomachy on Attic "Tyrrhenian" vases in Etruria before the subject was common in Athens and explores its implications, while the second paper considers Nikosthenic vases in Etruria and the relationship of the Nikosthenic brand to an Etruscan sense of self. A third paper uses archival evidence to place a krater by the Berlin Painter in a tomb at Tarquinia and explores reasons for the choice of the rape of Europa as the subject. A fourth paper considers depictions of athletes on a single Attic red-figure kylix found on the platform of the first monumental stone temple at Poggia Colla and explores the connection of the athletes with Etruscan interest in and identification with the Dioskouroi.

The last two papers switch the focus to South Italy. The fifth paper defines and explores the special significance an Italic shape, the nestoris, had for Italic people in 4th Century BC Lucania, while the sixth paper demonstrates how local Italic populations modified the choice of subjects on vases by an Attic-trained painter in Lucania to suit their own identity.

Each of the papers develops a methodology for addressing the relationship between object and identity.

Targeted Marketing or Identity Formation? The Case of Amazons in Etruria
SeungJung Kim, University of Toronto

A group of about 260 Attic black-figure vases, known as "Tyrrhenian Amphorae," is thought to have been made exclusively in Athens for export to Etruria during the mid-sixth century B.C.E. Their distinct characteristics and uniform provenances make the Tyrrhenian group an attractive subject for studying the

dynamics of international trade. Recent advances in Digital Humanities have made new types of systematic and statistical studies more feasible. Using the Tyrrhenian group as a control sample in a larger statistical study of Attic black-figure vases, this paper traces the popularity of vase shapes and novel iconographies at that time, exploring the notion of targeted marketing and highlighting dynamics of commerce and trade. In particular, the Tyrrhenian Group's penchant for the Amazonomachy has not been understood properly, despite being their single most frequent subject matter (>20%). Preliminary statistical studies reveal that Amazon iconography may have begun with such early export goods to Etruria, which then caused its later popularity not only in Etruria, but back in Athens as well.

Why did the Etruscans adopt the Amazonomachy so whole-heartedly as to cause its unprecedented, international popularity? And what might that tell us about Etruscan identity? While the selective preference for certain Greek myths may not be entirely independent from the selective input determined by trade dynamics, this paper aims to show that systematic statistical investigations using large data sets may disentangle some threads by observing temporal trends that signal intentionality. While the popularity of Amazons on Attic vases shows no statistical difference between those found in Athens and Etruria before ca. 525 B.C.E. when excluding the Tyrrhenian Group, the overall percentage of Amazons shows a 4-fold increase in Etruria, compared to Athens, with a 99% confidence level. But the particular shape of the amphora was already popular, signaling that it was chosen because of its known popularity in the target market. The Amazonomachy, then, was a new experiment initiated by the Tyrrhenian Group and adopted by Etruscan consumers. At a time when a rampant female warrior may not have appealed to the average Athenian, it did to the Etruscans, apparently not because of its barbaric otherness from the Athenian perspective, but by way of its connection to Herakles, who appears on more than half of the Amazonomachies. Moreover, the adoption of the Amazonomachy into the popular visual culture of the Etruscans adds an extra dimension to their well-known exceptional attitudes towards women.

Nikosthenes: Innovation and Identity in Late Archaic Vase Painting
Jennifer Tafe, Boston University

The inscription ΝΙΚΟΣΘΕΝΕΣΕΠΟΙΕΣΕΝ provides a unique opportunity to examine Athenian artistic identity in antiquity. With extant vases excavated almost exclusively in Cerveteri and Vulci, this distinctive Athenian atelier seems to have developed its "brand" primarily in response to Etruscan tastes. Signatures are exceedingly rare on Greek vases, which makes the 149 ceramic vessels signed by Nikosthenes remarkable, accounting for nearly 25% of the entire corpus of signed Greek vases. Yet, while Nikosthenes is mentioned in every major study on Greek vase painting, the complexity in his workshop activities (including inconsistent quality and style, the variety of techniques, and focus on the export market) discourages intensive study.

This paper aims to examine vases excavated in Etruria that bear the Nikosthenes signature and to propose that understanding the Etruscan consumer begins with

understanding the self-conscious Athenian workshop during the late Archaic period. This paper will examine the distribution, iconography, and artistic collaboration of the vases in order to shed new light on the relationship of the Nikosthenes brand to the Etruscan sense of self. The corpus provides a unique model for investigating how Etruscan tastes effectively altered the Nikosthenes brand, therefore reinforcing Etruscan identity both in Etruria and within the Athenian vase painting workshop. In fact, the Nikosthenes workshop deliberately adapted Etruscan vase shapes and employed an innovative use of painting techniques and subject matter, therefore introducing new types that appealed to the Etruscan market through an Athenian atelier's experimentation.

This paper also intends to enlarge the scholarly debate on the topic of artistic individuality and authorship in antiquity and its potential consequences for the study of Greek art. Nikosthenes, in particular, complicates the notion of personal artistic style and challenges the traditional idea of the individual artist in two ways. First, the atelier employed many painters, but all artists signed with the same inscription, calling into question the idea of a signature as a mark of individual artistic identity. Second, export to Etruria raises questions about whether the vases reflect an inherent Athenian artistic identity, or a responsiveness to the tastes of their consumers. Using the Nikosthenes workshop as a model, this paper will argue that Athenian artistic identity was not necessarily a reflection of personal style, but rather the product of a nuanced relationship between an inventive workshop looking to a new market and its consumers.

The Berlin Painter's Europa Krater and a "Special Dead" in Tarquinia?
Sheramy Bundrick, University of South Florida St. Petersburg

In the 1890 Notizie degli Scavi, Wolfgang Helbig describes the Berlin Painter's bell krater with Europa and the bull (Museo Nazionale Tarquinese RC7456) as standing at the feet of a deceased individual within a Tarquinian chamber tomb, a second individual also occupying the space. However, the unpublished Rapporto settimanale degli oggetti che si sono ritrovati ai Monterozzi, housed in Tarquinia's communal archives, provides a different and, because of its eyewitness nature, likely more accurate account. It describes an inhumed deceased on the tomb's lefthand bench — accompanied by a black-glazed cup, two scarabs, and two "cerchietti d'oro"— and the Europa krater on the righthand bench, containing "un cadavere decomposto, e un piccolo anellino d'oro." This account also lists a plain mirror (presumably of bronze) and a balsamarium made of alabaster; the phrasing and punctuation are ambiguous, but these objects may have also been inside the krater. The Rapporto settimanale implies a husband and wife interred in the chamber tomb, but the wife having been cremated rather than inhumed as was usually the case in such burials. Cremation burials formed a minority at Tarquinia in this period, and they tended to be placed in separate pit tombs (tombe a buca). This particular burial further departs from most of the latter by including grave goods with the remains. The Europa krater dates to the early fifth century B.C.E., but other vases in the tomb date from later in the fifth century, leaving it unclear whether the wife had died decades earlier than her husband, or whether a vase

that had long been in the family's possession was repurposed. The Europa krater has extensive ancient repairs that help support the second scenario.

It seems clear that the krater was chosen only partly for its practical shape — amphorai otherwise preferred for cremation burials at Tarquinia — and maybe mostly for its iconography, Europa having been spirited away by a god the same way the deceased was thought to be. The conditions of discovery for most Tarquinian cremation burials and the fact the deceased's remains were not preserved in this and other cases make it difficult to be certain about the situation. Using what little evidence is available, however, I speculate that the woman interred within the Europa krater may have been a "special dead," someone who had died in childbirth or another tragic way that inspired the unusual method of burial and unusual choice of urn.

Attic Red-Figure Boxers and Etruscans

Jenifer Neils, American School of Classical Studies at Athens, and *Ann Steiner*, Franklin & Marshall College

How and what Athenian and Athenian-inspired vases communicated with their Etruscan users has become a fertile topic of scholarly discourse. Considerable evidence supports the idea that Etruscan consumers preferred Attic vases with images that complemented and supported their own mythology and social structures, thus supporting "identity" as they defined it. This study adds significant new evidence through one case study from a religious site carefully excavated over the past twenty years, the North Etruscan sanctuary at Poggio Colla, located northeast of Florence.

For evidence of Attic vases excavated from Etruscan tombs, we can see the grave itself as well as the full spectrum of grave goods with which Athenian figural pottery and their local imitations interact. The context as a whole then combines with shape and imagery to express social messages about identity, such as ethnicity, gender, and status. This paper will focus instead on interpreting the messages of Attic ceramics in a rarer context at a religious site, at least in part sacred to the goddess Uni and her consort, Tinia .

At Poggio Colla, Attic red-figure imports in the fifth century are extremely rare. They stand out dramatically among local fine wares and even dedications of luxury objects, including gold jewelry and bronze statuettes. A red-figure kylix by the Painter of the Paris Gigantomachy (ca. 475 B.C.E.), found in conjunction with religious activity on the podium of the first monumental stone temple is the focus here.

This red-figure kylix shares its context with iconographically mute, undecorat¬ed late bucchero vessels. The boxers that decorate the kylix are the only human figures preserved on any ceramic evidence for this period at the site; contempora¬neous bronze figurines of male and female figures and the antefixes of the temple are highly archaizing in contrast with the more naturalistic human figures on the kylix.

Products from the workshop of the Painter of the Paris Gigantomachy are wide¬ly disseminated throughout Etruria, and especially in the north around Florence, Adria, and Spina. The Painter produced a wide range of subjects on

kylixes as well as other shapes; in N. Etruria scenes of boxers with trainers on cups are common. This paper lays out 1) a case for the connection of the athletes with Etruscan interest in and identification with boxing; and 2) a possible connection with the Dioskouroi one of whom was renowned as a boxer. These links help to construct Etruscan identity at a fifth century Etruscan sanctuary in honor of two principal deities in the Etruscan pantheon.

Nestoris and Volute-Krater: Notes on the Construction of Identity in Magna Graecia

Jasper Gaunt, Michael C. Carlos Museum, Emory University

Among vases recovered from South Italian tombs, the nestoris has long been recognized as being a local shape with special significance. This paper seeks to refine understanding of the nestoris in native contexts through the light shed upon the shape by the production of non-native versions of one of the three types today classified as nestorides, not only with regards to shape and subject matter, but also taking account of size, function and overall appearance. It builds on Fabio Colivicchi's work that has shown that locally made examples of type A were generally consigned to tombs in Messapia, where their presence can be taken to convey that the deceased was of indigenous stock. Our only depictions of nestorides occur on a series of Apulian column-kraters that represent warriors in local ("Oscan") dress. Thomas H. Carpenter has recently argued that these vases may have been intended for this (likewise indigenous, or aspiring) "warrior elite."

This paper argues that the traditional typology of nestorides established by C.E. Trendall should be re-assessed. In particular, the nestoris of so-called type B should be recognized as a variant of the krater of Chalcidian shape, or stirrup krater, both modest versions of the volute-krater. This shape, known in antiquity as the krater lakonikos, was familiar throughout Southern Italy primarily from black-glazed Laconian versions that have been studied by Conrad Stibbe and Massimo Nafissi. Chiara Tarditi has collected examples of bronze volute-kraters and related shapes from Apulia. For versions in both media, Taranto, the colony of Sparta, is likely to have played an important role.

Red-figured nestorides of type B came to be made almost exclusively in Lucanian potteries, as Gisela Schneider-Herrmann's lists reveal. Furthermore, entirely unlike their colleagues in Apulia, the Lucanian potters ceased to decorate volute-kraters. Martine Denoyelle has done much to clarify artistic aspects of this Lucanian production. The division cannot, as Konrad Schauenburg hinted, be coincidental, even if we are unable to advance a compelling explanation.

Furthermore, to the acknowledged Lucanian nestorides of type B, a number of important additions may be proposed hitherto mis-identified as volute-kraters. These include an Etruscan red-figure version attributed by Sir John Beazley to the Painter of the Vatican Biga. Even more interesting is a pair of undecorated nestorides of type B, excavated at Troy in a Hellenistic context and published by John Hayes.

Adapting to a Local Market: The Repertory of the Pisticci Painter
Mark Stansbury-O'Donnell, University of St. Thomas

Early Lucanian figured pottery provides an opportunity to consider how a local population modifies subject matter to suit its identity and agenda. The Pisticci Painter trained in Athens, but a comparison of his work with the Niobid and Polygnotan workshops reflects how the south Italian population affected his repertory of subjects. Silvestrelli has shown that there was already a robust fineware production in the area during the fifth century, to which new shapes and figural painting were added with the arrival of the Pisticci Painter. Schierup has shown that early Lucanian pottery developed some new shapes specifically for this market, the nestoris and the pseudo-Panathenaic amphora, and simplified the iconographic repertory.

A more detailed statistical study of the subject matter of the Pisticci Painter, Niobid Painter, and Polygnotan Group reveals statistically significant variations in the Pisticci Painter repertory, both within broad categories such as pursuits, and further within the selection of more specific subjects within these categories. For example, the common youth-woman pursuit that dominated the Athenian workshops is relatively uncommon for the Pisticci Painter, but scenes of Eros and Eos pursuing generic youths and women demonstrate a disproportionate interest in winged deities pursuing mortals in south Italy.

The population of many findspots for the vases, such as the town of Pisticci, were Italic and not Greek, and it is reasonable to consider whether the interests of these consumers influenced the shift in subject matter. Schierup proposed that the pseudo-Panathenaic shape developed in southern Italy had associations with funerary rituals, and one can further consider the idea that winged deities had specific meaning in that local context. Scenes of athletes, sometimes with women observers, and Dionysiac gatherings are far more common in the Pisticci Painter oeuvre than for Attic painters. In light of the representations of local costumes on some early Apulian ware, these changes in Lucanian subject matter might be attributed to the religious and ethnic identity of local consumers and their interests.

SESSION 8F: Colloquium
Big Data and Ancient Religion: Gods in our Machines?

ORGANIZERS: *Sandra Blakely*, Emory University, and *Megan Johanna Daniels*, University of Puget Sound

Colloquium Overview Statement

What are the benefits and caveats of applying big data approaches—including quantitative modeling, large relational databases, and network analytics—to the study of ancient religion? The search for patterns of human behavior through quantifiable religious remains is opening up an important set of arguments to complement and cast fresh light on the traditional close readings of specific monuments, objects, texts, and sites. Yet methodological issues arise as well: what tools do we require, as classicists and archaeologists, to acquire, curate, share, compare,

and analyze this data? How do we go about bridging our a priori assumptions about religious belief and practice in the ancient world—often built on traditional close readings of texts and iconography and contextual analyses—with the sheer, often undifferentiated, amount of information contained in big data? Finally, how can we gauge the heuristic value of models built on archaeological data—comparatively slender, and only partially preserved—against the models built from contemporary societies? Big data is not a passing phase in the exploration of human phenomena: in this panel, we offer a series of case studies and conversations on the state of the question.

In Pilgrim's Progress, statistical analyses of votive dedications in mid-Republican Rome enable the construction of some simple social network models, which gauge interactions facilitated by the pilgrimage economy; a Bayesian analysis yields a hypothesis for pilgrimage as the historical framework of interaction between Romans and non-Romans. The Landscape of Early Greek Religion problematizes the results emerging from a GIS analysis of cult sites on the Greek mainland and Crete from the Late Bronze through the Archaic period: the computer-generated analysis of the nature of cultic patterns over time fails to take into account longstanding human research biases. Integrating Semantic Reasoning brings network analysis and semantic reasoning to the religious component of amphitheater audiences, enabling a comparison of urban and rural community experiences through a regional network model. Gaming foregrounds the caveats of the social network models built around the mystery cult of the Samothrace, and sets out the results of gamifying the data as a more productive route to measuring human agency at Samothrace. Thick Description offers a report on the ongoing development of the Database of Religious History, particularly its mission to integrate thick descriptive data as a critical balance to the limits of big data.

DISCUSSANT: *Cavan Concannon*, University of Southern California

Gaming with the Gods: a Crowd Sourcing Approach to Modeling Agency in the Samothracian Sea
Sandra Blakely, Emory University, *Robert Bryant*, University of Pennsylvania, and *Joanna Mundy*, Emory University

The mystery cult of the Great Gods of Samothrace created a complex human social network of theoroi, mystes, proxenoi and priests that extended spatially from Olbia to Alexandria, along the Asia Minor coast, and as far west as Rome. It also has left a relatively abundant set of data confirming that the benefits of initiation were uniquely pragmatic and measurable: safety in travel at sea. In The Samothrace Mariner project we have sought to test the hypothesis that the promise worked, as travelers with Samothracian affiliation enjoyed the benefits of eisploun, ekploun, asylia, and ateleia associated with the islands' proxeny. Our methodology builds on the epigraphic record and two different digital matrices. ArcGIS enables the spatialization of the data appropriate for the evaluation of a sacred promise about movement through space. Gephi has yielded models of the social networks created and sustained through the island's proxeny decrees,

reflecting the historical reality that these benefits were realized in person to person interactions. What emerges is a series of networks that seem to be robust, sparse and scale free, an outcome which raises the possibility of modeling patterns of organic emergence through Monte Carlo analysis.

As promising as these models are, they share in recognized caveats connected with ancient social network analysis. These include the lacunous nature of the data, the need to integrate qualitatively different data types, and the lack of evidence for the human agency that created and was sustained by network structures. Our data are both too big for traditional historiographies and far below the level for which SNA was designed. In this paper we report on our experiments with gamifying our scholarly data in a bid to crowd source alternative, contemporary models for the emergence of this network. A Unity development platform integrates the network, geographic and historical data in an interactive 3D game. Player behavior is tracked through a series of routes, which help us analyze trends, strategies, and patterns of network emergence; debriefing forms open the door to a contemporary ethnography of network users. This is an agency-rich response to the noted absence of the human in quantified analyses, and a reflection of the social science pathways which may emerge from a critical appraisal of the boundaries of big data.

The Landscape of Early Greek Religion: GIS, Big Data, and the Contingency of the Archaeological Record
Sarah Murray, University of Nebraska-Lincoln

Advocates of Big Data often harbor what amounts to a religious fervor about their methods. Data analytics, they contend, can epiphanically reveal patterns in human behavior that are sufficiently complex to escape human notice when considered anecdotally. Can this system of belief in the rational, systematic study of the human world intersect usefully with the study of, often irrational, ancient systems of religious belief? I consider this intersection by way of a case study investigating the origin of mainland Greek religious institutions centering on rural sanctuaries. A distinctive feature of mainland Greek material culture is the prominence of rural sanctuaries in the archaeological landscape of cult and ritual practice. While certain components of historical Greek religion have clear Mycenaean antecedents, communal worship at rural sanctuaries does not seem to be one of them, leaving the question of the contexts and causes of the origins of this religious institution open to interrogation.

In pursuit of clarity on the spatial history of mainland religious practice, I present the results of a landscape analysis based on a comprehensive GIS of sites for cult and ritual practice dated from the final phases of the Late Bronze Age to the Archaic period on both the Greek mainland and on Crete. I investigate the correlation of two factors, topography and distance from an urban center, with sanctuary presence diachronically across the dataset. The results show that rural sanctuaries on the mainland were heirs to a Creto-Minoan religious tradition rather than a sui generis development based on 8th century mainland political, social, or economic factors. Or were they? When a computer analyzes the extant data, it sees certain superficial patterns, but fails to consider a crux at the center of archaeological

interpretation: that data are often not what they seem. In the case of Crete and the Greek mainland at the transition from the Bronze to the Iron Age, scholars are dealing with an uneven record of material culture that has been the subject of asymmetrical research priorities and investigative habits over a century of work. Data from these periods cannot be compared uncritically. I argue that the "empirical" patterns the computer thought it was seeing in the sanctuary data can be more convincingly explained as artifacts of the history of archaeological work.

Integrating Semantic Reasoning into a Network of Roman Amphitheaters: Religion and Beyond

Sebastian Heath, Institute for the Study of the Ancient World, New York University

Amphitheaters are not exempt from the general observation that religion permeated many aspects of Roman society. Judicial executions and quasi-historical battle reenactments that took place within amphitheaters could invoke a mythological narrative frame that included more or less direct reference to divine characters and interventions. While evidence is incomplete, programs of sculptural and painted decoration reinforced this connection by depicting motifs drawn from mythology and civic religion. And although it is incorrect to assume that a standardized or unchanging practice existed, the imperial cult had a role in the organization and presentation of sponsored entertainments. Likewise, gladiatorial deaths, while occasional, could be ritualized. This paper asks how two digital methods - network analysis and semantic reasoning - can turn a recognition that religion was an evident component of the experience of audience members into a productive program of study. The process begins by noting that a good estimate of the number of amphitheaters in-use during the second century C.E. is 250. While this is not a large number, it supports a very conservative estimate of there having been well over 1.5 million total amphitheater seats during that same period, which is sufficiently large to reward quantified approaches. As is well known, amphitheaters are not evenly distributed around Roman territory and there is an exceptional concentration in the central Mediterranean, particularly Italy and Africa Proconsularis. It is only in these regions that it is usual for any single amphitheater to have more than five neighbors within 150 km, an observation that extends to seats. Again, it is only in these regions that an amphitheater seat is likely to be relatively near hundreds of thousands of others. Semantic reasoning allows flexible integration of hierarchically-organized categories into this analysis, with initial focus on the concepts of urban and rural combined with quantitatively supported size categories. Religion remains central to this analysis by noting that small amphitheaters tightly integrated into dense networks of amphitheater seats encourage a regional approach to community experience, an experience in which religious framing is evidently present. While not suggesting that the unit of "amphitheater seat" offers a basis for complete explanation, quantified approaches drawing on methods that fall under the rubric of "big data" are very rewarding when considering amphitheaters as a particular material context for Roman communal religious practice.

Quantifying Thick Descriptions for the Database of Religious History
M. Willis Monroe, University of British Columbia

The field of religious studies has always benefited from cross-disciplinary studies investigating an aspect of phenomena across cultural boundaries. The rapid growth of publications and specialization in sub-fields has led to a remarkable increase in the volume of scholarly knowledge on a given topic within a given specialty. The Database of Religious History aims to help navigate this growing landscape by providing a large-scale resource for investigating religious practice and identity in the historical record. Its wide scope and collaborative nature aims to keep apace with developments within the many subfields, while the format and structure of the data contained with the project allows for innovative comparison and investigation of religious practice otherwise difficult through traditional forms of scholarly inquiry.

The Database of Religious History attempts to record quantitative data about religious groups through the use of a comprehensive questionnaire. Currently, entries within the database describe religious groups (as defined by the expert). Answers are generally binary choices, with sufficient room for clarification and comment; and each answer is also located in time and space. While thick descriptions of the religious experience remain an important part of scholarship and are by no means superceded by quantifiable data, the nature of our dataset allows new methods of analysis and processing. Queries involving multiple questions in relation to each other across time and space are relatively simple and productive with a large-scale quantitative dataset on religion.

As the project grows we are seeing the necessity of modifying our data collection strategies to allow for experts to input their thick descriptive data in different forms. A "religious group" might not best describe a body of evidence from a historical period, and so other questionnaires could offer a method to convert the descriptive data into a group of answers in the database. Likewise, a particular entry might rely on source material that we can host in a rich format on our platform. The reliance on quantitative data (with a supporting framework of qualitative data) as the core of the database means that we have to always be aware that historical data does not always fit into binary answers. The more flexible and innovative the project is in its methods of data collection and storage the greater our potential coverage.

Pilgrim's Progress: Mobility, Community, and Data in the Roman Middle Republic
Dan-el Padilla Peralta, Princeton University

As its military and colonization enterprises continue to be re-evaluated in quantitative terms, the imperial Roman Republic's track record of population displacements is providing fodder for fresh debates about state formation and human mobility. Still in need of clarification is the scale of human movement (temporary as well as permanent) to the city of Rome itself in the era of Italian and Mediterranean conquest. Proceeding from the argument that an underappreciated catalyst for temporary movement to Rome was pilgrimage to Roman sanctuaries—the construction of which accelerated during the fourth and third centuries B.C.E.—this

paper outlines how quantitative modeling combined with visualization can bring into focus the extent of this temporary movement and its consequences for social interaction.

Relying on the published record of votive dedications recovered from mid-republican Rome, I first apply some basic statistical procedures to establish the numbers of human dedicators likely represented in the extant votive record. With these numbers in hand, I then turn to building some simple social network models to capture the interactions among Romans (and between Romans and non-Romans) that were facilitated by the emergence of this pilgrimage economy. To determine just how likely it was that non-Romans were involved in the workings of this pilgrimage system, I indulge in a Bayesian exercise, partly with a view to underlining the usefulness of Bayesian approaches for generating interpretations of the material record. Following a review of the main regional catchment areas for prospective pilgrims traveling to Rome, I consolidate possible sites of pilgrim origin and scales/frequencies of human interaction at Rome into a series of network visualizations—each meant to illustrate how Romans and non-Romans might have gotten to know each other at times of peak mobility into the mid-republican city (temple anniversaries, festivals, and games).

The paper's send-off provocation comes in the form of one final model, of how often city-dwellers and non-resident visitors undertook different kinds of civic activities. The aim here is to demonstrate that on the whole members of the mid-republican civic community—whether residents in the city or irregular visitors to it—were far more likely to spend time on religious observance than they were to spend time on any other public civic activity (such as voting). It is numbers and graphs, I suggest, that most arrestingly convey this social reality.

SESSION 8G: Colloquium
Anatolias Melting Pot? Reassessing Cross-Cultural Interaction and Migration in the Early Iron Age

ORGANIZER: *Catherine Steidl*, Brown University, *Jana Mokrišová*, University of Michigan, and *Emily S. Wilson*, University of Chicago

Colloquium Overview Statement

It has now been about two decades since a large-scale general reassessment of Greek migrations and 'colonial' encounters in the Mediterranean has taken place, wherein an emphasis upon the archaeological footprint of these movements and interactions has privileged material evidence over the ancient texts (Antonaccio 2005, Dietler 2010, Van Dommelen 2011). However, work on migrations has also stagnated. In Ionia specifically, while a reassessment of migration and colonization has shifted more attention to archaeological evidence and constructivist approaches to reading foundation myths (Rose 2008, Crielaard 2009, Lemos 2007, Mac Sweeney 2013), there is still a problematic tension between different sources of data. When archaeology is privileged, the textual migrations may either be dismissed outright, or misused to support dubious archaeological interpretations; when textual evidence is privileged, archaeological interpretations are adjusted

to fit historical narratives. Overall, there has been little consensus on how to approach both sides of the evidence satisfactorily in a holistic and productive way. Early Iron Age Ionia, in particular, has been the subject of much prolonged debate thanks to the effluence of ancient texts that discuss the 'Ionian Migration' and its Athenian influence, as well as the debate over how 'Greek' western Anatolia was at this time. These assumptions and biases have fueled academic research agendas that identify and separate 'Greek' practices from 'indigenous' practices, which either strips Anatolia's communities of any agency, or glosses it over as 'hybrid' or simply just Greek.

The aim of this session is to approach the Iron Age and Archaic western Anatolian littoral as a case study to re-address the evidence for, and issue of, 'migrations' and identity in an integrative manner. It combines archaeological and historical approaches in a mutually constructive dialogue of mobility, cross-cultural interaction, and the genesis of Ionian identity. Moreover, this session seeks to reevaluate approaches to the literary tradition and their interconnections, or lack thereof, with increasing archaeological discoveries. This session does not look for justification of historical/literary representations, but works toward proposing how individual lines of evidence--archaeological, historical, linguistic, and literary--can be used productively to answer respective research questions pertaining to mobility, inter-community contact, material culture change, and identity narratives to call for a deeper engagement and holistic understanding of what the lived experience was in the western Anatolian littoral during the Early Iron Age.

Contributions 'Not Straying Far from Home: Anatolian Mobility at the Dawn of the Early Iron Age and Networking' and 'Cross-Cultural Interactions Between Ionia and the Aegean' will address properties of ancient movement. Their consideration of mobility and connectivity on different scales--and in two different periods--will offer complementary perspectives on the important role these processes played over the course of several centuries of social and economic change in Ionia. Subsequently, 'Cross-cultural References at Larisa (Buruncuk): The Architectural Evidence' and 'Isn't it Ionic? Community Formation and Flux in Pre-Classical West Anatolia' will address the theme of community. Consulting a variety of evidential categories--including architecture, portable material culture, and text--each offers an argument for the representation of different identities, and how we might effectively discuss their dynamic interaction within individual, localized contexts. Finally, 'What's in a Name? The 'Migration' of Ionia in the Early First Millennium B.C.E.' and 'Word Up: Integrating Literary and Material Sources' speak to one another through their discussion of inverse phenomena--the migration of terminology and the terminology of migration. Each brings together a re-assessment of textual evidence with the current state of knowledge to offer new perspectives on the origin of 'Ionian' identity, its roots in history, and indeed in scholarship.

DISCUSSANTS: *Christopher Ratte*, University of Michigan, and *Sarah Morris*, UCLA

Not Straying Far from Home: Anatolian Mobility at the Dawn of the Early Iron Age
Jana Mokrišová, The University of Michigan

This contribution will address the archaeological aspects of mobility and cross-cultural interaction within Ionia as well as between Ionia and its Anatolian and Aegean neighbors. It will be argued that the most important process to the re-emergence of social complexities in the Early Iron Age within the Anatolian coastal zone was ongoing and multidirectional small-scale movements, rather than the large-scale and predominantly unidirectional movement the Ionian Migration is thought to be. This form of interaction can be archaeologically anchored to as early as, if not earlier than, the late 13th century B.C.E. based on material from sites such as Miletos, Ephesos, and Iasos. This prolonged mobility had a significant effect on the lives of the communities on the Anatolian littoral for which it was a regular fact of life, thereby making them inherently heterogeneous.

Coastal zones, by their very nature, carry the potential for increased mobility. They combine overlapping zones of communication within an interactive sphere characterized by different modes of travel across both land and sea and by the transfer of people, objects, information, and knowledge. Earlier research on the movement of people and objects has not done justice to this process inasmuch as archaeological studies have tended to focus on migrations and on long-distance interaction identified through the introduction of non-native elements of material culture. Indeed, the introduction of Protogeometric pottery has often been conceptualized along these lines. Mobility in Early Iron Age southwest Anatolia, however, was structured through more frequent, sometimes shorter-term, movements across variable - but often short - distances in a milieu of fluid and permeable social boundaries. Southwest Anatolia, therefore, serves as an ideal case study for an examination of a more formal difference between migration and mobility, whereby the concept of mobility designates a more open-ended, almost opportunistic, interaction.

Networking and Cross-Cultural Interactions Between Ionia and the Aegean
Michael Loy, University of Cambridge

Between the eighth and sixth centuries B.C.E., the land of Ionia was highly mobile. Through the creation of new colonies across the Aegean, Anatolia, and beyond, prominent city states like Miletos and Samos were drawn into Mediterranean-scale dialogues with their neighbors, and the newly-forged alliances and rivalries reconfigured the character of the region into a series of interacting and competing networks. Consequently, as these cities began monumentalizing their settlements and sanctuaries, they had unprecedented access to new intellectual and material worlds. Imported goods in the region and the deployment of stylistic motifs that originated within the Aegean are often read, therefore, as evidence of networking and contact beyond Ionia; and the archaeological record is central to constructing these narratives of exchange and mobility. 'Networking', however, is a rather general and unspecific term which merely describes the circumstance of Ionian cultural exchange without addressing when, why, and under what motivations new connections were forged, or how these

interactions changed over time. Inasmuch as material data can be used as proxy for all sorts of complex social phenomena, a close and formal analysis of abundant object classes such as pottery, inscriptions, and coinage can yield a more nuanced understanding of networking and connectivity throughout this period. This paper considers computational network analysis as a tool to reconstruct in more detail the diachronic and directional nature of cultural exchanges, and also the intensity and shifting gravity of networks forged between Ionia and the Aegean in the Archaic period. By having this framework in place, one is much better placed to visualize and interrogate cultural, economic, and political networks, and hence examine with greater focus the nature of cross-cultural interactions between Ionia and its neighboring regions. Networking, under this analytical aegis, is therefore the key to understanding further the genesis of Ionian identity, and that which was formed in relation to adjacent areas.

Isn't it Ionic? Community Formation and Flux in Pre-Classical West Anatolia
Catherine Steidl, Brown University

Ionia holds an undoubtedly central place in the Greek cultural imagination thanks to its many cultural contributions. Though debate on details is ongoing, the generally accepted means of its Hellenization has been the settlement of the coastline by peoples from what would later be known as mainland Greece. A general shift toward material culture identified with that area of the western Aegean is well-accepted by the 8th century B.C.E., but as early as the 11th/10th centuries B.C.E., post-Bronze Age material at sites like Klazomenai and Ephesos has been identified as 'Greek' in origin. This material shift has often been equated with a similar population shift, all fitting nicely within the paradigm of Hellenic migration, and ultimately a culturally unified region.

This paper argues that the types of material continuity we see at key sites around the Ionian region fits much better within a framework of relative population continuity as well. Further, it suggests any shifts related to identity that may have occurred in conjunction with, or corollary to, shifts in material culture would have taken place at a local level on the scale of individual residential and sub- or intra-residential communities. 'Community' thus provides an ideal framework through which to examine material changes, and to understand the different types of 'hybridity' or 'in-between-ness' that can be ascribed to both materials and practices—the production of vessels and other artifacts, the enactment of cult ritual, and even the daily use of language illustrated in the work of poets like Hipponax. It argues that communities articulate themselves around many facets of daily life, and that these can be roughly categorized into three overarching themes with material proxies in the archaeological record: shared daily practice, shared belief, and shared social experience. Ultimately, instead of seeing Ionia as a place that is 'hybrid' or 'in-between', this paper argues that we should view it as a locus of continual connectivity, in possession of its own, distinct set of identities. Examining the region through the lens of these communities allows us to shift (some of) our focus back to the local level, to examine the roles played by individual and small group agents in the process of cross-cultural interaction, and to interrogate

the relationship between material culture on the ground and the narrative that has run beneath much Ionian scholarship.

What's in a Name? The 'Migration' of Ionia in the Early First Millennium B.C.E.
Emily S. Wilson, The University of Chicago

The recent discovery of two broken and unfinished stone blocks in the north portico of the mortuary temple of Amenophis III (Kom el-Hatan), dating to shortly before his death in 1354 B.C.E., that have an inscribed figure representing the personified, captured land of 'Great Ionia', attests to the presence of this name as a territorial designation during the Bronze Age, agreeing with two Knossian tablets discovered earlier in the century (Driessen 1998/9).

More importantly, the personified lands grouped with 'Great Ionia' suggest that we should located Ionia in mainland Greece, probably north of the Peloponnese (Haider 2008), which accords with the later Homeric grouping of the Ionians in the mainland (Il. 13.685ff). This paper meditates upon how the name Ionia was able to 'migrate' to the western Anatolian littoral during the course of the Early Iron Age and Archaic Period, by tracing its use by the Neo-Assyrians in the Levant—used as a blanket term to encompass pirates and traders (Rollinger 2001, Brinkman 1989). This paper suggests that the name, initially territorial in the Bronze Age, was later used during the early first millennium B.C.E. first as a convenient economically-based 'brand name' for traders and their goods from the Aegean doing business in the Levant. Thereafter, in the Archaic Period, it was adopted by the inhabitants of western Anatolia as the region 'became' Ionian, imbued with ethnic overtones as this? region of 'Ionia' turned from Anatolia's interior to the greater, largely Greek Aegean.

Word Up: Integrating Literary and Material Sources
Naoise Mac Sweeney, University of Leicester

Our models and expectations for migration in(to) Ionia owe much to the accounts preserved in literary texts. Many of these sources tell of an 'Ionian Migration', whereby Greek speakers migrated from the western to the eastern side of the Aegean, settling and founding cities as they went. While the archaeological evidence for the Early Iron Age in Ionia and its neighbouring regions has now been the subject of much re-evaluation, this corpus of literary material remains largely unexamined. Significant advances have occurred in our understanding of these texts since the last comprehensive study of them (Sakellariou 1958), to include the discovery of new texts, the publication of new commentaries, and the developments of new methodological and theoretical tools in textual analysis. This paper undertakes a wholesale reassessment of the literary material for the 'Ionian Migration', questioning whether what the texts depict really is either 'Ionian' or a 'Migration' at all.

SESSION 8H: Workshop
Between Dilapidation, Education, and Museum Nostalgia: American Collections of Plaster Casts, the Harvard Case

MODERATOR: *Adrian Staehli*, Harvard University, and *Susanne Ebbinghaus*, Harvard Art Museums

Workshop Overview Statement

Plaster cast museums were once the pride of American university and college collections, enhancing archaeological and art historical teaching with a survey of masterpieces of Greek, Roman, Medieval and Renaissance sculpture. The selection of the exhibits followed—and reinforced—a well-established canon illustrating historical styles and the progress of art, which also served the didactic needs of fine art and architecture schools. In this respect, university museums followed the example of the newly founded American art museums of the late 19th century, where plaster casts filled gaps in chronologically arranged displays of original works of art.

At many colleges and universities, the cast collections have long fallen into oblivion, relegated to storerooms, damaged, or even completely lost. Only in a few cases have they received renewed attention. These revivals are part of a recent surge of interest in old lab instruments, rare books, historical teaching tools, and peculiar mechanical or optical devices. The appeal of these collections, veritable cabinets of curiosities, appears to be connected to the post-modern fascination with past scientific explorations and with the strange apparatuses that represent them. It goes hand in hand with resistance against traditional museum narratives and with a renewed preference for the authentic and auratic object, with a focus on the materiality of artifacts and on artifacts as bearers of meaning offering unmediated access to the past.

The current situation of academic cast collections between neglect and renewed appreciation raises challenging curatorial, educational, and conservation questions. Should existing collections be preserved, restored, and exhibited at a time of budget and space constraints? To what extent do casts preserve information that is otherwise lost? How valuable are they for scholarship and teaching, and how can they be made accessible to 21st-century audiences? Are they best integrated into current narratives of the ancient world or treated as nostalgic relics of an academic past? What role can they play in reconstructing lost cultures, and how do they relate to new ways of reproduction, such as 3D-imaging? Harvard's "archaeological" collections include casts and other reproductions of Classical sculpture and, more prominently, of Minoan, Near Eastern, and Mesoamerican objects and monuments. Following brief presentations on the history, changing appreciation of, and current approaches to Harvard's collections, workshop participants will discuss ways in which universities might revitalize and even expand on existing cast collections.

PANELISTS: *Amy Brauer*, Harvard Art Museums, *Kenneth Lapatin*, J. Paul Getty Museum, *Adrian Stähli*, Harvard University, *Joseph A. Greene*, Semitic Museum,

Harvard University, *Adam Aja,* Semitic Museum, *Barbara Fash*, Peabody Museum of Archaeology and Ethnology, Harvard University, *Judith Jungels*, Peabody Museum of Archaeology and Ethnology, Harvard University, *Peter Der Manuelian*, Semitic Museum, Harvard University, *Susanne Ebbinghaus,* Harvard Art Museums, Harvard University, and *Annetta Alexandridis*, Cornell University

SESSION 8I: Colloquium
New Approaches to the Asklepieion at Epidauros

ORGANIZERS: *Catherine M. Keesling*, Georgetown University, and *Bronwen L. Wickkiser*, Wabash College

Colloquium Overview Statement

Livy (45.28.3) in the Augustan period characterized the sanctuary of Asklepios at Epidauros in the Peloponnese as once rich in gifts offered by votaries whom the god had healed, but later rich only in the traces of gifts that had been robbed. Though the Asklepieion was thoroughly excavated in the nineteenth century and several buildings have been reconstructed in recent years, the site is complex and much work remains to be done to elucidate the abundant traces of its cult, its epigraphy, its physical layout, and its history. Attention has naturally focused on the temple of Asklepios and the thymele, buildings whose construction is documented by inscribed accounts. At the same time, though, the functions of the thymele and of other areas and structures both within and outside the temenos are debated and remain poorly understood. The ritual of incubation in the abaton and the iamata, the inscribed records of Asklepios' cures, have been intensively studied, but the epigraphy and the archaeological remains demonstrate that Asklepios' importance for his worshippers, for the nearby city of Epidauros, for the Peloponnese, and for the larger Greek world went well beyond healing.

This colloquium brings together five papers that interrogate key aspects of the Asklepieion, its cult, and its history. Paper 1 revisits both the dating and the historical context of the fourth-century building program in the sanctuary and the exportation of Asklepios' cult beyond the Peloponnese. Paper 2 refocuses our attention on the dynamics of vision, sound, and epiphany as they would have been produced and experienced in the Asklepieion in its Classical and Hellenistic heyday. Paper 3 reconsiders the dedication of a fourth-century Olympic victor in the sanctuary within the larger contexts of Greek portraiture and hero cult. Papers 4 and 5 concentrate on the development of the site's sacred space over time, from the Classical through the Roman imperial periods. Indeed, Livy's rather bleak description of the sanctuary came before a revitalization of the site in the second century C.E. Not only did the shape and size of the temenos change across the many centuries of its use, but the "statuescape" of the Asklepieion was transformed in striking ways as monuments were moved and removed and as old statue bases were put to new uses.

Constructing a Sacred Landscape for Asklepios in Fourth-Century Epidauros
Milena Melfi, University of Oxford

The aim of this paper is to shed some light on the processes that led to the firm success of the cult of Asklepios and to the establishment of the sanctuary at Epidauros as a main religious focus for the Peloponnese first and for the whole of Greece later. Notwithstanding a large number of studies of the subject, the fourth-century B.C.E. building program of the sanctuary is still neither precisely dated nor completely understood. The program was clearly aimed at giving the sanctuary a Panhellenic dimension, providing buildings for the cult and for the reception of large numbers of worshipers and visitors. Its beginning, crucial for our understanding of the development of Epidauros as one of the main sanctuaries of the Greek world, has been differently dated—mostly because of the lack of archaeological documentation from the time of the excavations. The only evidence we can use in order to date and explain the start of this impressive project consists of the recently re-published accounts recording the successive phases of the building program, and of the sculptures from the temple of Asklepios.

In this paper I approach the sculptures of the Asklepieion at Epidauros by placing them in their context, that is to say by connecting them with their makers and commissioners, with the buildings they belong to, with the Epidaurian landscape and the biography of Asklepios. This will provide two levels of interpretation, one within the religious and cultic environment of the Asklepieion; the other in the wider context of contemporary history. The rebuilding of the sanctuary will ultimately appear to be a concerted operation with political overtones that, by using buildings, sculptures and local topography, defined the cult of Asklepios as epichoric—of Achaian, therefore Doric origin. Ultimately Epidauros exploited the antiquity of its cult and made it the perfect religious focus for the cities of the Peloponnese, but was also able to strongly influence religious developments in the whole of Greece by creating a new model for exportation—a sort of 'brand' for religious colonization. After Epidauros, nearly every polis felt the need for a sanctuary of the healing god and reproduced the Epidaurian structures, images and rituals. I believe that the key to understanding this unprecedented phenomenon lies in the timing of the Epidaurian building project and the ideas behind it, all factors explored in this paper.

Sound and Epiphany in Asklepieia: The Case of Epidauros
Bronwen L. Wickkiser, Wabash College

This paper presents archaeological and epigraphic evidence from the Late Classical period for sound as an element of epiphany at Epidauros, one of the largest and most popular of Asklepios's many sanctuaries.

Asklepios's appeal to fervent worshippers across the Greek and Roman world derived in large part from his ability to heal. Inscribed narratives (*iamata*) at Epidauros and elsewhere describe the god appearing to sick individuals in their dreams and curing them immediately or prescribing a regimen for therapy (*IG* IV2 I.121-124). Sculpted votives depict Asklepios interacting with his suppliants.

From this evidence, it is clear that healing in Asklepieia typically entailed a very personal interaction with the god — an epiphany.

Scholars have paid much attention to the visual element of these moments: indeed, worshippers claimed that they "saw" their dreams (the verb εἶδον is typical of the iamata), and inscribed and/or sculpted stelai, as well as other physical dedications memorializing the epiphany, were erected for visual perusal. Yet these moments of epiphany included also a marked sonic element that has long remained nearly silent in scholarship. For instance, many of the iamata describe Asklepios speaking to his worshippers while they dream, and some worshippers thank the god for listening to their appeals. Also, hymns that resounded in the sanctuary request that the god not only be present among the worshippers but that he hear the prayers vocalized by these hymns (*Coll.Alex.* 132-36). The sounds of this music, beyond being an agent of epiphany, may well have had also a therapeutic effect that enhanced the efficacy of the god's cures, especially if we situate their performance within and around the *thymele* — just next to the stoa where healing dreams likely took place — as recent research suggests (P. Schultz and B.L. Wickkiser, "Communicating with the Gods in Ancient Greece: Acoustics and the Design of the *Thymele* at Epidauros," *International Journal of Technology, Knowledge and Society* 6 [2010] 143-64).

This paper concludes by considering the significance of sound and epiphany at Epidauros within the context of recent scholarship on divine epiphany (e.g., V. Platt, *Facing the Gods: Epiphany and Representation in Graeco-Roman Art, Literature and Religion*, Cambridge 2011) and on the senses, especially sound, in the ancient past (e.g., Y. Hamilakis, *Archaeology and the Senses. Human Experience, Memory, and Affect,* Cambridge 2014, and J. Toner, ed., *A Cultural History of the Senses in Antiquity*, Bloomsbury 2014, repr. 2016).

Drymos of Argos and Relief Portraits in Greek Sculpture

Catherine M. Keesling, Georgetown University

In the nineteenth century excavations at Epidauros, the base for a portrait of ca. 350-300 B.C.E. dedicated by an Olympic victor from Argos named Drymos was found. The epigram inscribed on the base (IG IV2 1 618=CEG 2 815) translates as follows: "Drymos son of Theodoros brought news of the Olympic contest here on the same day, running to the renowned grove of the god, an example of manliness. My fatherland is horsey Argos". This dedication commemorates not Drymos' victory in the Olympic games, as we might have expected, but rather his long distance run from Olympia to Epidauros. The implication that Drymos' spontaneous run was divinely inspired fits well into the cultic context of the Asklepieion, where Asklepios and Apollo were credited in inscriptions with miraculous interventions in human affairs. Though the Drymos epigram has attracted attention, the monument upon which it was inscribed has not. According to the earliest publications, the only trace on top of the base is a long and narrow cutting for attaching a relief. Though this cutting is hidden from view in the present display in the Epidauros Museum, the dimensions of the block seem correct for a large-format relief portrait of Drymos. In contrast with the common use of sculptural relief for funerary monuments, votive and honorific portraits in relief are unusual. But why relief?

John Ma (Statues and Cities: Honorific Portraits and Civic Identity in the Hellenistic World, Oxford 2013, 279-284) has drawn attention to a group of several relief portraits of the Greek historian Polybius in Arcadia, dating soon after 146 B.C.E., one of them preserved (IG V 2 370). I argue in this paper that the natural frame of reference for both Drymos' late Classical/early Hellenistic relief portrait and the later relief portraits of Polybius are the so-called Lakonian hero-reliefs, produced in the Peloponnese from the Archaic through the Hellenistic periods. The relief format of Drymos' portrait at Epidauros emphasized the heroic character of his feat.

Human and Divine Interaction at Epidauros: Exploring the Temenos in Time and Space
Gunnel Ekroth, Uppsala University

The sanctuary of Asklepios at Epidauros has been the focus of archaeological exploration for more than 100 years and a number of buildings and monuments have come to light. This paper explores human and divine interaction at Epidauros from the perspective that Greek sanctuaries were set apart for and owned by gods, but mainly frequented by humans, who were also the caretakers of the gods' property. Of particular interest is how the presence of human visitors and worshippers affected how such sacred spaces were planned, built upon and equipped. According to Pausanias (2.27.1), no death or birth could take place within the god's precinct at Epidauros and all offerings had to be consumed within this space. How did these rules affect the layout and architectural embellishment of the shrine and the visitors' movements and behavior?

Of particular interest is the extent of the sanctuary and which buildings and activities where housed within the god's precinct and which were located on the outside, and how this changed over time. Pausanias mentions that the sacred grove was surrounded on all sides by boundary stones but he also calls the sanctuary a peribolos, while the epigraphical evidence speaks of the temenos of Asklepios. An elaborate propylon marked the northern limit of the sanctuary in the late fourth century B.C.E. but how far the temenos extended in other directions is not clear and depends on the functions ascribed to the monuments recovered.

The incubation cult called for particular installations and rules, as is evident from the layout of the abaton, but also other restrictions, such as fences surrounding certain areas, may have been needed in a sanctuary visited by pan-Hellenic crowds not necessarily familiar with the local practices. Also the presence of other deities than Asklepios should be taken into consideration, in particular the numerous altars and smaller shrines located in the sanctuary. To what extent did they construct the inner space of the sanctuary and affect the worshippers' activities?

This paper addresses developments and changes of the temenos at Epidauros in a diachronic perspective from the Archaic to the Roman periods to explore the different means by which the divine space could be restricted or accessed in order for the sanctuary to function properly.

'Statuescape' and Public Memory in the Asklepieion at Epidauros
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The cult of Asklepios the healer was introduced quite late, not before the fifth century B.C.E. Using the growing popularity of this cult, Epidauros, the little harbor town on the Eastern coast of the Peloponnese, began to turn the Asklepieion virtually into a 'panhellenic' sanctuary by commissioning splendid new buildings, notably the two temples of the early fourth century, and by promulgating a new supraregional festival in honor of the god. The first minor monuments placed around these temples, however, are notably designed to give the sacred space a rather archaic appearance. This paper focuses mainly on this capacity of votive statues and/or their bases to shape and to orchestrate the collective memory archived in the public space of the Epidaurian sanctuary. As in other sacred places, many of the statue monuments were installed there not only for religious reasons, but also for self-representation as well as political purposes. Important stakeholders within this framework are the Achaean League, the Roman conquerors, and the families of the local elites. The eventual reuse of bases from earlier statues is strikingly telling in respect to the step-by-step transformation of the sanctuary into a 'lieu de mémoire'. Replacing the statue population of the sanctuary inevitably led to the transmutation of its history. Likewise the rearrangement or relocation of statue monuments could generate new networks of meaning. The Epidaurian sanctuary and its inscribed stones, often bearing signs of (multiple) reuse, offer a good example to study and analyze the dynamics of a changing 'statuescape'.