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Session 1A: Open Session Current Archaeological Research in Anatolia

Burned Out: Contextual and Volumetric Analysis of Hearths and Ovens at Bronze Age Kaymakçı, Western Anatolia

Catherine B. Scott, Brandeis University, and Christopher H. Roosevelt, Koç University

Over six years of excavations at the second-millennium B.C.E. citadel of Kaymakçı in western Anatolia, hearths and ovens have emerged as one of the most common feature types. Some of these burning features appear to be quite large installations (perhaps reaching 2 m in diameter), involving complex construction techniques and multiple phases of reuse. They are found in diverse contexts throughout the site, including within apparent domestic buildings, in open-air activity areas and courtyards, and in close association with fortifications. Using the Kaymakçı Archaeological Project's innovative born-digital spatial recording system and intensive sample collection strategies, we have been able to collect robust data on these features and their surroundings. Here, we present a preliminary typology of oven and hearth features found at the site, their relationships to surrounding architecture, features, and artifacts, and evidence for change in the way they were constructed over time. We also present 3D, volumetric models of some excavated features—which allow for digital reconstruction and re-excavation—and review associated scientific studies currently in progress that will allow us to improve understanding of these features in the future. Finally, we consider parallels with other contemporary sites in the eastern Mediterranean and present preliminary interpretations for how such burning installations were incorporated into social life at Bronze Age Kaymakçı.

Tracing the Western Frontier of the Hittite Empire: Results from the Polatlı Landscape Archaeology and Survey Project

Müge Durusu-Tanrıover, Bilkent University

The historical accounts of the Hittite Empire, a Late Bronze Age imperial system that dominated large parts of modern Turkey and northern Syria, paint a troubled picture for the western frontier. Textual sources demonstrate that repeated military campaigns, negotiations and treaties shaped the encounters between the local communities and the empire, while the archaeological footprint of these encounters have rarely been investigated. Polatlı Landscape Archaeology and Survey Project (PLAS) is a new fieldwork initiative in west-central Turkey that aims to explore the archaeological signature of the Hittite Empire in its archaeologically under-studied western frontier, as well as the material culture of contemporary local communities. In its 2019 pilot season, PLAS extensively and intensively surveyed distinct geological and settlement areas, including Hacituğrul Höyük, a large Iron Age center 22 km northeast of Gordion, also featuring Late Bronze Age materials. This paper aims to report on the results of this first season, as well as introducing the larger, long-term research agenda, questions and methods of this new project.

A rigorous research program on the legacy data collected in earlier excavations from the region accompanies the fieldwork component of PLAS in order to produce a more comprehensive view of the region in the Late Bronze Age. The paper will also report on the new research being conducted on such legacy collections and concludes that the western frontier of the Hittite Empire was a complex network of communities in the Late Bronze Age, meriting further investigation.

Late Bronze IIB Period at Tarsus-Gözlükule, Turkey

Elif Ünlü, Boğaziçi University

The transition from the Late Bronze to the Iron Age in the eastern Mediterranean is one of the most debated periods in archaeology, marked by the collapse of regional powers, a shift from urban and centralized organization to a more rural one, migrations, and an overall heterogeneity in material culture. In Anatolian chronology, Late Bronze IIB levels, which denote the period after the collapse of the Hittite Empire, span this transitional period. With new excavations in the region, as well as in central Anatolia, the heartland of Hittite political power, a more detailed and nuanced narrative is emerging, which indicates that these were not simple processes.

In 2001, Boğaziçi University of Istanbul initiated an excavation and research project at Tarsus-Gözlükule. These excavations have exposed the Late Bronze IIB stratum in several trenches. In this talk, I summarize the stratigraphy of this level with a specific focus on the pottery and present ceramics that have been selected from stratigraphically good contexts, securely dating the material to the post-collapse period on the site.

Preliminary results show that the Plain and Cooking Wares show continuity with the earlier Late Bronze IIA period, where there is a strong Central Anatolian influence on the pottery repertoire. Along with these, locally made Late Helladic IIIC type pottery is also encountered, which is a novelty at the site. This suggests that two very different approaches to eating and drinking traditions coexisted on the settlement during the Late Bronze IIB period. The results show that strong continuity in certain aspects of the material culture is evident amidst sudden shifts in demographics and also possibly economic orientation.

Late Fourth Century B.C.E. Pottery Assemblages of Patara: Some Considerations on Local and Regional Ceramic Classes

Erkan Dundar, Kahramanmaraş Sutcu Imam University

Recent investigations at Patara reveal that the city played a crucial role as a communications node during the formation of the Hellenistic era. As one of the most important cities in ancient Lycia, Patara furnished an essential harbor to several inland communities in the basin of the Xanthos River, including Xanthos, Tlos, and Pinara. Since 2013 our excavations have revealed the foundations of a garrison bastion and numerous houses at the Tepecik mound of Patara. The results of five excavated loci reveal architectural and ceramic remains that shed light on the development of Patara and the surrounding region. Among these are two rooms,

two semi-open kitchen areas and a pantry. Destroyed simultaneously by fire, all six loci contained in situ closed ceramic contexts.

One of the areas destroyed by the fire appears to be a *gynaikonitis*, based on its location and finds. The excavation yielded numerous small finds (such as pyramidal loom weights, lead and terracotta figurines, large numbers of metal objects, etc.), as well as black-slipped *kantharoi*, *skyphoi*, echinus bowls, *olpai*, rolled-rim plates, fish plates, casseroles and transport amphorae. Together with Attic imports, we identified regional and locally produced finewares, including some from Rhodes.

Another room that was destroyed by the fire appears to have functioned as a pantry to the *gynaikonitis*. This room survives to the east of *gynaikonitis*. It contained storage and service vessels such as mortaria, hydrias and amphorae, as well as various kitchen utensils (such as iron meat hook and lead cauldron) used for food preparation.

The work in this sector of the Tepecik mound thus far indicates that the destruction of the buildings occurred immediately after 310 B.C.E. These closed contexts will play an important role in the creation of a late fourth-century B.C.E. ceramic chronology and typology for the entire region of Lycia, something that is poorly understood. Equally important it reveals that Persian garrison fortresses accommodated domestic facilities for women.

Fieldwork at Amos, 2019

Mehmet Gürbüzler, Mugla Sıtkı Kocman University, and *Asil Yaman*, University of Pennsylvania

Amos is a Rhodian *deme* located at Asarcık in Turunç, Marmaris (southwestern Turkey) today. The city situated at Bozburun Peninsula is also known as Carian Chersonessos in ancient sources. The intensive archaeological surveys at Amos and its vicinity started in 2019 as a multi-disciplinary expedition. This research is designed to identify, document, and investigate the long-term settlement pattern and land use from antiquity through the medieval periods at Amos. This paper aims to present some archaeological data from 2019 fieldwork and share the first observations on the research.

Monuments to Civic Memory: Text and Topography of Two Hellenistic Fountains in Western Anatolia

Christina DiFabio, University of Michigan

This paper examines two Hellenistic inscriptions and their accompanying monumental fountains in western Anatolia: the Salmakis epigram from Halikarnassos (mid to late second century B.C.E.) and the Second Decree of the Teians to Antiochos III and Laodike III from Teos (204/203 B.C.E.). Building on other scholars' literary and historical analyses of the texts, I place the inscriptions and the fountains within their regional topographies. I argue that the messages of the texts are highlighted by the fountains' positions within the cities and their relationships to other monuments. The patrons of the monuments chose specific locations in order to promote civic identity when their cities were experiencing political transitions.

For the Salmakis Fountain, the patron placed the fountain on a cliff near the coast to evoke specific episodes from Hesiod's *Theogony* cited in the epigram. The patron also aligned the fountain with the city's fortifications which were built by Mausolos. The patron thus manipulated pan-Hellenic mythology and the city's past status as the capital of Karia to promote the Hellenistic city. The Second Decree of the Teians describes a new fountain for Teos's queen Laodike after Antiochos III's takeover of the city; although the fountain has not been found, the decree states that it was in the agora. The patron placed the fountain in a visible spot of the city to promote the queen, but more importantly the patron ensured that the new piece of infrastructure was in the most functional place for the Teians themselves. As other scholars have noted, the fountains were spaces where the people of Halikarnassos and Teos constructed collective identities through bridal rites. I also analyze how the placement of the monuments shaped the everyday lives of those communities practicing the rites. With these examples, I speak to broader topics of patronage and places of memory.

Session 1B: Colloquium

New Archaeological Fieldwork in the Cities of North Africa

Sponsored by the Archaeology of Maghrib Interest Group

Organizer: *Stephen Collins-Elliott*, University of Tennessee, Knoxville

Colloquium Overview Statement

The archaeology of North Africa continues to be a thriving and vibrant field of investigation. This colloquium panel brings together new results from several international projects recently concluded or currently in progress in Morocco and Tunisia, two of the four countries which comprise the region of focus for the Archaeology of the Maghrib Interest Group. These projects all pertain to the urban domain of human activities in a variety of subjects, concentrating especially on religion, economics, and urban development over time. These projects focus for the most part on the Roman, late Roman, and Medieval periods. They highlight not only broader cultural trends that were common throughout the Roman and late Roman world, but also the way in which local phenomena can be highlighted in regard to calling attention to the particularity of North Africa.

From Morocco, papers that discuss the development of Roman-style domestic cult and economic modalities that are attested in other contemporary urban centers show how these domains of life can be interrogated in terms of their particular manifestation within the province of Mauretania Tingitana, such as at Banasa, Sala, and especially Volubilis. Roman urban life can be contrasted with the continuation of subsequent urbanism at Volubilis (Walil) in the early and high Middle Ages. Investigating the long-term development of urban life is also the focus of results from Tunisian-German work at Meninx (Jerba) in Tunisia. This colloquium will also feature the results from Smitthus (Chimtou) and Bulla Regia, each of which touches upon the formation of the monumental Christian landscape in their respective cities.

These projects not only serve to provide up-to-date information on developments in the field of North African archaeology, but can serve to foster discussion about the overall trajectory of the questions asked by researchers and the degree to which new insights into the material record of North Africa can serve to change or develop our approach to urbanism, domestic or public religion, and the ancient economy for this important region.

Discussant: *David Stone*, University of Michigan

Honoring Gods inside the Domus: On the Domestic Cult in Mauritania Tingitana

Néjat Brahmi, École Normale Supérieure

Domestic cult refers to the collection of practices as part of daily rituals and beliefs performed by the *familia* in the private space of the *domus*. A space devoted to it is found in household architecture, materializing a religious dimension by the existence of what is traditionally called a *lararium*. The *lararium* can take a variety of forms, but it may be identified as a niche in a wall or a painting depicting the *lares* next to the *genius* of the *paterfamilias*. Sometimes, it is also manifested by the simple presence of altars, with or without or statuettes of the tutelary divinities of the *domus*. In this paper, I undertake a study of domestic cult in three cities of the far west of the Roman Empire, Banasa, Sala, and Volubilis, which belong to the same geographical region in the southwest of the province of Mauretania Tingitana. Based on extensive fieldwork in these cities, I analyze features that attest to these daily, cultic practices, combining the study of artifacts, statuary, and epigraphy to reconstruct the defining elements of domestic cult. Epigraphy and statuary are some of the ways to approach the identities of the divinities chosen and venerated by the inhabitants of this peripheral region of the Roman Empire. The archaeological context of domestic altars allows us to identify the types of space within the house that were considered sacred—e.g., those areas used for hosting the *lararium*. My goal here is to show that the domestic cult in this region of the Roman Empire was subject to local adaptations as revealed by the presence of domestic altars, which can be found only in this region. In other words, while the domestic cult was similar to what was found in the rest of the Roman world, it also has specific characteristics of its own due to local perceptions and (re)interpretations.

The 2017-2019 Field Seasons of the Urban Economy of Volubilis Project (UEVP)

Jared Benton, Old Dominion University, and *Christy Schirmer*, The University of Texas at Austin

The Urban Economy of Volubilis Project (UEVP), a multi-year study begun in 2017, aims to understand the nature of production and services in the city of Volubilis. The immediate project goals are designed to make two contributions to the study of Volubilis' economy. First, previous studies have largely treated Volubilis' bakeries as dots on a plan, without much consideration for their operation and the

people who worked in them; as such, one goal of the project was to better document the features and technologies inside the bakeries. Second, the relationship of the bakeries with the city's olive-oil presses has frequently been observed, but spatial proximity does not imply cooperation or coordinated efforts. Another goal of the project was to begin placing the baking industry of Volubilis in the city's rich network of producers, merchants, service providers, and consumers. From 2017 to 2019, eight bakeries were cleaned and documented by photogrammetric surveys, in addition to traditional documentation involving drawing and photography of millstones, kneaders, and ovens. In 2019, we explored two bakeries in much greater detail, removing backfill from the 1960s and taking archaeobotanical samples to shed light on fuel sources and types of grain. We also took samples from a number of stone technologies, including millstones, olive mills, and mixers for petrological analysis, examining how different technological and petrological types intersect, particularly in terms of sourcing and quarries. We hope that the petrological and archaeobotanical can serve as proxy data for cross-craft interactions. Results of these analyses indicate that the industry relied on a number of other producers, including olive presser and specialized stoneworkers, in addition to farmers, for fuel and for necessary equipment. Furthermore, technological variation suggests that bakers had choices, possibly between different competing producers, as in the case of the kneaders, but also in the option of using contractors, as in the case of the ovens. Isolating other craftsmen, such as oven builders from masonry ovens; Volubilis' bakers may have made their own adobe ovens. Focus should remain on process, only cautiously assigning secondary crafts to such processes if we want to capture accurately the complexity of Roman craftsmanship and, by extension, the ancient economy.

Volubilis 2: Exploring the Medieval City

Elizabeth Fentress, University College London, *Corisande Fenwick*, University College London, and *Hassan Limane*, Institut National des Sciences de l'Archéologie et du Patrimoine

Contemporary with the publication of the UCL-INSAP 2000–2005 excavations (Fentress and Limane, *Volubiis après Rome*, Brill 2018), a new five-year program has begun in the more central part of the medieval city and outside its primary gate. Our aim is to understand the urbanism of the new town created by the Awraba tribe at the end of the sixth century, and its relationship to the extramural settlement which we believe was settled by an Arab garrison. The area within the walls seems to confirm that the seventh to eighth century occupation of the site consisted of large one-roomed buildings, with a loft at one end for storage, similar to Bourdieu's *maison élémentaire*. This part of Walil was apparently abandoned in the ninth century, only to be briefly reoccupied in the fourteenth century by large walled compounds with small buildings inside. Outside the Roman city gate the picture is very different, with a complex stratigraphy of larger, denser, and slightly more elaborate buildings which were again abandoned in the ninth century, apparently after a disastrous fire. Most striking is the very large number of coins of the Idrissid period recovered from this site, while a ring from the first occupation,

dating to the late seventh or early eighth century, bears the inscription "Bismilla," confirming our initial assumption that this was the home of the Arab garrison.

New Insights into the Urban History of Meninx / Djerba

Stefan Ritter, Ludwig-Maximilians-Universität, Munich, and *Sami Ben Tahar*, Institut National du Patrimoine, Jerba

This paper presents the results of a Tunisian-German project at Meninx, the largest ancient city on the island of Jerba and one of the main production centers of murex dye in the Mediterranean. In contrast to other important Roman seaports like Sabratha or Leptis Magna, the urban plan of this port town did not extend into its immediate hinterland but instead along the coast of the gulf of Bou Grara. Following an extensive geophysical survey, excavations and other investigations during two fieldwork campaigns in 2017 and 2018 were conducted in selected areas, providing information on the history of three temples, the Forum Basilica, a private bath, the Macellum, and a second commercial building near the coastline and some habitations. The earliest levels of the settlement are situated in the vicinity of the later Roman Forum and go back to the fourth century B.C.E., but buildings were constructed predominantly from the first century C.E. onward. Some of them were abandoned already in the late fourth or early fifth century, well before the city's abandonment in the seventh century. The geophysical survey was then extended to the city's periphery, further away from the shoreline, where we found strong evidence for production activities. Finally, underwater explorations have revealed the location of the port of Meninx. The ancient coastline was situated between 70 and 80 meters off the modern shoreline, and a broad, deep submarine channel, running about two kilometers into the gulf, parallel to the city, served to guide the port's intensive maritime traffic. The exceptional situation of the port facilities corresponds to the extension of the urban layout along the coast, which demonstrates the unusual extent to which the port city, whose economy was based on purple dye and fish industries, was oriented toward Mediterranean trade.

Late Antique and Early Medieval Simitthus in the Light of Recent Discoveries

Moheddine Chaouali, Institut National du Patrimoine, Tunis, *Heike Moeller*, Deutsches Archäologisches Institut Berlin, and *Philipp von Rummel*, Deutsches Archäologisches Institut, Berlin

This paper will focus on the late antique and early medieval period of Simitthus (Chimtou, Tunisia) where recent fieldwork has changed the impression of the urban development in this period completely. The discovery of a new Christian complex built into the courtyard of a first century C.E. temple with a large and richly decorated church, a baptistery and other rooms certainly belongs to the more spectacular findings, but detailed new information on stratigraphy, chronology, and urban economy will also be discussed in the paper. Together with the research project at the neighboring urban center of Bulla Regia, which will also be presented in this session, the recent discoveries at Simitthus have highlighted the complexity of urban trajectories in the late antique and early medieval period.

A New Basilica and its Funerary Landscape at Late Antique Bulla Regia

Dirk Booms, University College London, *Moheddine Chaouali*, Institut National du Patrimoine, Tunis, and *Corisande Fenwick*, University College London

Recent discoveries at Bulla Regia in northern Tunisia provide an exceptional opportunity to chart the history of a Christian community, from the establishment of its basilica to its abandonment. Our excavations have uncovered a large Christian complex containing a church, a series of funerary chapels, and a large funerary enclosure built within a preexisting Roman necropolis containing mausolea, funerary enclosures, cupola tombs, and a mixture of inhumation and cremation burials. In and around the church complex are a large number of sealed tombs of men, women, children, and even a pair of bishops otherwise unknown in the historical record. This paper will present the most recent findings on the complex's architectural history and layout through an analysis of the construction phases between the fourth and seventh century C.E. It will integrate evidence from building styles, construction techniques and materials (much of it reused from pagan mausolea), as well as from the tombs and funerary mosaics uncovered so far. Though at first the cemetery and the church might appear as two dissociated elements, our excavations show that the changing types and locations of the tombs are linked to the gradual monumentalization of the basilica.

Session 1C: Colloquium**The Roman Army in the West: New Findings, Methods, and Perspectives**

Organizer: *Alicia Jimenez*, Duke University

Colloquium Overview Statement

Archaeological analyses of Rome's expansion in the Mediterranean and the creation of the provinces have traditionally highlighted a pattern of increased levels of urbanism and monumentality, the spread of Latin epigraphy and Roman law as a consequence of the settlement of Italic population and the integration into the Empire. Leaving aside pioneering publications by James (2012a, 2012b) or Roymans and Fernández-Götz (2015) on the archaeology of mass violence, Classical Archaeologists have often overlooked the fact that the first settlements and the earliest contact communities were not located in Roman towns, but in military establishments. Our interpretations of important military campaigns, battles, and sieges often rely heavily on the information provided by the ancient Roman sources. Yet new excavation and survey projects conducted in deceptively 'well-known' sites are both revolutionizing our understanding of the social processes involved in the creation of the empire and raising a series of questions: How does the most recent archaeological evidence complement, contradict or modify prevalent ideas about the internal structure and organization of Roman camps, the supply to the Roman army, or the role of frontiers in the empire? How did castrametation evolve from the earliest republican camps documented archaeologically in the western provinces (Numantia, Alésia), to imperial military enclaves (German-Raetian

limes, Vindolanda)? What is the best way to incorporate in our current archaeological interpretations different types of evidence provided by the ancient sources or, in some cases, 90-year old excavations of iconic sites?

In Europe, the LIMES congress serves as a platform for the presentation of new findings in the archaeology of the Roman army, but occasions to discuss recent developments in this field or, more broadly, in the western part of the Roman empire occur rarely in North America. We are bringing to the AIA a group of European and North American archaeologists with long-term engagement in important fieldwork projects to present new or in some cases even still unpublished materials. Our hope is to advance novel interpretations on the development of Roman camps and their internal layouts, the living conditions of the soldiers and the supply from Rome, the role of provincial population in the army and the creation of frontiers, based on new data available thanks to techniques of remote sensing (ALS and geophysical surveys, LiDAR-based site plans) and archaeological fieldwork conducted in the last ten years in important Roman military camps in Hispania, Gallia, Germania, and Britannia.

Discussant: *Simon James*, University of Leicester

Vindolanda: the Roman Archaeology of a Frontier and People in Transition

Andrew Birley, The Vindolanda Trust, Chesterholm Museum

Roman frontiers were incredible feats of engineering and human endeavor which had the power to change the physical characteristics of a landscape and often had lingering consequences and impacts stretching far beyond their intended purposes or design. Their monumentality and sense of permanence has made it difficult to appreciate the often transient and sophisticated nature of their occupation by the people who made the frontiers of the Roman Empire their home. At Vindolanda, a Hadrian's Wall fort and town, evidence from recent excavations has shed new light on the complexity of the transitional nature of military occupation. Here the Roman army auxiliary units built nine separate forts, seven in wood and three in stone, on top of one another, and in doing so created anaerobic conditions for the remains of the earliest phases of occupation. The site was therefore always changing, as were its people.

In the anaerobic levels almost every imaginable type of artifact, whether organic or inorganic, is preserved from 2000 years ago. Thousands of Roman leather boots and shoes, many used by women and children, have populated male forts with mixed communities and challenged perceptions of Roman army life. Leather boxing gloves, wooden combs, hairnets, socks, baskets, and the severed heads of fallen British adversaries are just some a few of the variety of artifacts recovered. Most important of all are the letters preserved on thin pieces of wood, written in ink with cursive Latin writing, which continue to be found at the site. These first-hand accounts from the people of Vindolanda are unparalleled windows into the past. They are preserved from the pens of hundreds of characters which include commanding officers, soldiers, children, slaves, women, and merchants. All the above combine to put the flesh on the bones of Roman Britain and a frontier in transition.

The Roman camps near Numantia (Renieblas, Spain, 2nd–1st c. B.C.E.): New Archaeological Findings, LiDAR-based Plan and Interpretations

Alicia Jiménez, Duke University, *Jesús Bermejo*, Universidad Carlos III de Madrid, *David Hernández-López*, Universidad de Castilla La Mancha, and *Ana del-Campo-Sánchez*, Universidad de Castilla La Mancha

In 2015 Duke University set up a new excavation project in Renieblas (Soria, Spain), where at least five Roman camps loosely dated to the second to first centuries B.C.E. were found in the early twentieth century. The camps were involved in the early conquest of the province of Hispania and the siege of the native settlement at Numantia, which resulted in Rome's annexation of much of the Iberian Peninsula in 133 B.C.E. Many basic and important questions about Renieblas (including the chronology of each of the camps) remain unanswered despite the spectacular results of Schulten's excavations at the site between 1914 and 1931. His interpretation of the camps remains problematic and the analysis of the archaeological finds (stored in the RGZM, Mainz) contested, due to the lack of archaeological context. However, Renieblas continues to figure prominently in analyses of the Roman Republican army, the early phases of the conquest of Hispania, and the basic structure of the Republican army, not in small part because, according to Schulten, the archaeological remains clearly corresponded to the best description of a Roman camp that has survived from Roman times, written by Polybius in the second century B.C.E. (*History*, book 6).

In this paper we will present the most important unpublished results of the last three fieldwork seasons (2015–2017), in which we have documented for the first time a series of artifacts in archaeological context (ceramic, fragments of arm and armor, coins), studied faunal remains and dated organic samples (charcoal and bones) using C-14. In 2019 we combined different geomatic techniques (LiDAR, photogrammetry, terrestrial laser scanners, archaeological survey, geo-referenced historical maps, and aerial pictures), to create a single archaeological plan that we hope will shed new light on the vexed problem of the structure and internal layout of Roman camps in the second century B.C.E.

From the Polybian Camp to the *castra stativa*: The Development of Roman Castrametation

Michel Reddé, Ecole pratique des Hautes Etudes, Université Paris Sciences et Lettres

The camp described by Polybius (6.41–42), around the middle of the second century B.C.E., is our first source on Roman castrametation. Polybius states that Roman camps were organized according to a standard plan in contrast with the less structured Greek encampments. This facilitated their construction in a short time and the location of each unit in the camp. According to Polybius since even individual soldiers occupied the very same place inside the camp, each new encampment resembled the return of an army to its native city. This famous text is a paradigm against which several military sites have been compared. Even more importantly, this single type of Roman camp has been the basis of the functional interpretation of different structures found inside Roman camps and consequently

labeled as *praetorium*, barracks of the *hastati*, etc. In this introduction, I propose to take the opposite approach and confront Polybius's text with the available archaeological evidence. I will analyze the problems posed by the latter, from the Republican camps at Numantia to Flavian military settlements, to study the way in which a new canon was gradually formed under the empire. To this end I will review and discuss recently discovered Republican camps in France and almost unpublished early Augustan contexts in Germany (Petrisberg, Trier).

The Upper German-Raetian Limes: Recently Discovered Forts and the Function of Roman Frontiers

C. Sebastian Sommer, Bayerisches Landesamt für Denkmalpflege, München

Since the declaration of the Upper German-Raetian Limes as a UNESCO-World Heritage Site, a series of geographical surveys in almost all the accessible forts and their *vici* on the frontier have been completed. In addition, complementary funds granted to create high-resolution Airborne Laser Scans (ALS) of the whole line in Bavaria have yielded important results.

This paper analyzes the new forts and military *vici* discovered in the last ten years, as well as the Limes as such, placing special emphasis on the way in which the new archaeological evidence available has substantially changed both previous interpretations of particular sites and their development and our understanding of the very function of the frontier. It is clear now, for example, that in the case of the Raetian Limes early ideas of a segmented construction have to be discarded. The geophysical surveys conducted in the area have revealed that identical timber towers with four corner posts surrounded by square ditches are not only found in the east and the middle of the Limes – as it was previously believed – but also in the west. This suggests that the line of forts was contemporaneously built along a stretch of 167 km in the frontier. Only in the marshy valley of the Altmühl and in the hills east of Gunzenhausen there are a number of different block-house constructions. The Raetian Limes seems now also connected directly to the outer Upper German Limes, where the first towers were built, however, in stone following the regional tradition.

The Potential of Anaerobic Archaeological Environments: A Case Study Investigating Cultural Contact in the Community at Vindolanda

Elizabeth M. Greene, University of Western Ontario, and *Barbara Birley*, The Vindolanda Trust

The Roman settlement at Vindolanda near Hadrian's Wall in England has provided unique and unparalleled evidence for understanding cultural change in the conquered provinces of the empire. Because of the anaerobic archaeological environments that exist throughout large areas of the site, organic artifacts offer a more robust data set than is typical for sites in oxidized conditions. The earliest levels of occupation at Vindolanda (85–130 C.E.) sit largely in anaerobic contexts. Therefore, the critical phase during conquest and early settlement provides robust evidence that is crucial for understanding cultural change and appropriation in the Roman provinces.

This paper uses a specific case study from Vindolanda of two houses located in the settlement outside the period four fort (ca. 105–120 C.E.) to show how anaerobic conditions dramatically change our understanding of those who lived there. The houses themselves were constructed in two different ways, one circular and the other rectilinear, while the associated material culture suggests that the residents both adhered to traditions and adopted new cultural material. For instance, both houses had a hand-operated quern stone for processing wheat, but one used a native style, while the other employed an imported “Roman” tool. At the same time, because the structures were in anaerobic conditions, the presence of wood and leather artifacts fills out the picture in a way not possible otherwise. The presence of wooden combs and leather shoes found in the round native-style structure suggests the inhabitants also utilized “Roman” goods for daily use, while writing implements indicate the adoption of writing habits not present in pre-Roman contexts. The inclusion of organic artifacts in this data set allows us to see much more clearly the nuances of cultural change on the level of individual households during this important period of conquest and settlement in the Roman provinces.

Session 1D: Workshop

Taking to the Field: How to Start an Archaeological Project

Sponsored by the Student Affairs Interest Group

Moderators: *Rachel Dewan*, University of Toronto, *Amanda K. Chen*, University of Maryland, and *Katelin McCullough*, The University of North Carolina at Chapel Hill

Workshop Overview Statement

For many archaeologists active in the field, establishing and directing one’s own dig is an anticipated milestone in an archaeological career. However, while many archaeologists are trained in excavation skills and fieldwork techniques, young professionals are rarely given instruction on how a project comes into being. The prospect of effectively and responsibly establishing a dig, survey, material study, or other archaeological project can be a daunting one, and is complicated by the variations in protocols, procedures, and restrictions imposed on projects in different areas of the world.

This workshop seeks to shed light on the intricacies of starting a project and to give graduate students and young professionals insight into an important, but often enigmatic, aspect of their future career. While the process of establishing a project will vary depending on the methodological approach used, the type of material involved, and the groups participating, this workshop brings together a diverse panel of archaeologists, professors, and researchers to speak on this process, offering advice and insight based on their own experiences in the field. These experiences have been wide-ranging, with the panelists having worked on or established projects that are geographically, chronologically, and methodologically diverse. From choosing where to work and contacting the correct authorities, to applying for permits and assembling a team, this session will cover the major steps involved in launching a project and carrying it through.

The workshop will consist of a panel discussion, with specific questions posed by the moderators, followed by a question and answer period, in which attendees will be encouraged to pose their own questions to the panelists. An open conversation offering honest guidance and support will help young archaeologists, whether they are in the position of starting a dig now or thinking ahead, to feel confident about their futures both in and out of the field.

Panelists: *Stephen Collins-Elliot*, University of Texas Knoxville, *Sarah James*, University of Colorado Boulder, *Robyn Le Blanc*, University of North Carolina Greensboro, *Kylie Quave*, George Washington University, and *Anthony Tuck*, University of Massachusetts Amherst

Session 1E: Open Session

Prehistoric Trade in the Mediterranean

Prehistoric Trade of Obsidian from Palmarola in the Central Mediterranean

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

The uninhabited tiny island of Palmarola, about 35 km south of Cape Circeo (between Rome and Naples, Italy), was an important geological source of obsidian used during the Neolithic through Bronze Ages in the central Mediterranean. While thought to have been a minor source when compared to Lipari and Sardinia, extensive analyses over the last several years of many thousands of obsidian artifacts in museum and other collections show that obsidian from Palmarola was also widely distributed.

The large number of analyses conducted was enabled by the use of Bruker Tracer portable X-ray fluorescence spectrometers, which are non-destructive yet provide calibrated major and trace element data for all sizes of obsidian artifacts. Analyses of geological samples from all of the Mediterranean/European sources with the same instrument allows artifacts to be attributed to specific island sources and sub-sources on Palmarola, Lipari, Sardinia (Monte Arci), and Pantelleria, as well as in the Aegean and Balkans.

The rapidity of the analyses (now less than one minute each) has enabled the analyses of complete archaeological assemblages within museums and other facilities and has led to the identification of Palmarola obsidian as part of the lithic assemblages at more than sixty archaeological sites throughout peninsular Italy, as well as in Corsica, southern France, the Adriatic, and Croatia. Very rarely, however, was Palmarola the only source of obsidian used at the archaeological sites that have been tested, and it was the major source of obsidian at only 25% of them. The techno-typological characteristics of each artifact were also recorded in order to assess potential production and use patterns based on distance and other lithic materials used, including obsidian from other sources. When possible, the contexts and chronology of the lithic assemblages were incorporated in assessing and enabling potential statistical comparisons over time, space, and raw material.

Of Unfinished Anchors and Maritime Trade Networks: A View from Maroni Tsaroukkas, Cyprus

Carrie Atkins, University of Toronto

In addition to the nine known Late Bronze Age shipwrecks, stone anchors serve as proxies for ships and maritime activity to provide some of the best evidence for seagoing voyages in the Late Bronze Age. This is especially true for Cyprus, where no material remains of built Bronze Age ports have been found, but several anchorages have been documented. In this paper, I discuss material evidence from a Late Bronze Age anchorage along the south-central Cypriot coastline at Maroni Tsaroukkas, where a minimum of 70 anchors have been documented, alongside 11 stone blocks and over 400 ceramic sherds. Most notably, seven of these anchors are unfinished: roughly hewn into the shape of anchors with holes only partially carved. Very little is known about stone anchor manufacturing because few unfinished anchors or production sites have been documented. Therefore, the unfinished anchors at Tsaroukkas provide some of the only evidence for where sailors could have acquired their anchors and where anchors were carved. But, more than that, the anchors also attest to different scales of maritime trade when interpreted alongside the ceramic remains. Many of the unfinished anchors were found in close proximity to two assemblages of LCIA ceramics, indicating perhaps that this area might have been part of a terrestrial building complex, which is now submerged. These two ceramic assemblages include locally produced ceramics, regional imports from the Karpas peninsula on Cyprus, and long-distance imports from the Levant and Egypt. Consequently, the unfinished anchors at Tsaroukkas provide evidence not only for the production of anchors at a Late Bronze Age anchorage, which would have been a vital node in the supply chain of Bronze Age ships, but also for complex multi-scalar maritime trade networks in the Late Bronze Age.

Mari and the Minoans

Karen Foster, Yale University

The 20,000 cuneiform tablets found in the ruins of the palace at Mari provide a wealth of evidence for history, international relations, the arts, and religion in the eighteenth century B.C.E. This paper focuses on the documents that shed light on the connections between Mari and Minoan Crete. Thanks to recent editions incorporating updated readings and joins, the corpus of relevant texts has nearly tripled since the last time Aegean specialists considered them.

The texts include inventories of Minoan gold and silver vessels, ceremonial weapons, and leather and textile goods, many of which were obtained when King Zimri-Lim of Mari journeyed to Ugarit. There, he admired a Cretan boat in the harbor and met Minoan merchants and their interpreters. Back at Mari, he commissioned a small boat to be made in Minoan style, for which his head of stores obtained a sizable quantity of lapis lazuli for its decoration.

The Mari material opens a unique window onto the Aegean world of the day. Two historical nuggets of considerable significance for Aegeanists emerge from my present study. The first gives us a glimpse of who sat upon the throne at Knossos

when Zimri-Lim was king at Mari. Often dubbed by Aegeanists as the “missing ruler,” owing to the absence in Minoan iconography of unambiguously royal imagery, the appearance of this person on a Mari tablet is an exciting development. My second gleaning from the Mari texts offers fresh insight into the nature of the Minoan language, still unidentified.

In addition, this paper asks for the first time what the Mariote scribes might have been looking at and attempting to describe when they made their inventories of Cretan goods. I suggest artifactual analogues for the Mariote mentions of items from Crete, based as closely as possible on contemporaneous examples.

The Cape Gelidonya Shipwreck Ingot Cargo: New Research in Provenance, Composition, and 3D Morphometrics

Joseph W. Lehner, University of Sydney, *Emre Kuruçayırılı*, Boğaziçi University, *Nicolle Hirschfeld*, Trinity University, *Moritz Jansen*, University of Pennsylvania, *Dominique Langis-Barsetti*, University of Toronto, and *Samuel Martin*, University of Arkansas

The Cape Gelidonya Shipwreck, first excavated by George F. Bass in 1960, dramatically changed how scholars understood maritime culture and interaction during the end of the Late Bronze Age in the eastern Mediterranean. Since this seminal excavation, surveys in the 1980s and 90s and an excavation in 2010 added new material to the finds excavated by Bass, and in 2013 an international and ongoing effort to conserve and study the metal cargo as a complete assemblage commenced. In addition to the 39 oxhide ingots and 30 bun ingots reported by Bass in his 1967 publication, over 700 fragments of previously undescribed copper and tin ingots, amounting to a cargo total of ca. 1,100 kgs of ingot metal, reveal that there is much more to learn about the wreck and its context at the end of the Late Bronze Age. Building on previous archaeometallurgical research by Zofia Stos, in this paper we synthesize our work in microscopy, microanalysis, bulk composition, lead and copper isotope analysis, and 3D morphometrics to test for variation in raw material provenance, production technologies, and ultimately the processes that led to the collection of the metal cargo. These new data provide novel lines of evidence for the origins, provisioning, and curation of the cargo aboard the ship.

Reassessing the bronze objects from the Cape Gelidonya shipwreck in light of recent discoveries

Nicholas G. Blackwell, Indiana University, and *Nicolle Hirschfeld*, Trinity University

George Bass’s seminal publication (in 1967) of the finds from the Cape Gelidonya shipwreck included a catalog of 257 copper-alloy, presumably bronze, objects, many of them broken in antiquity. Bass identified the shipment as scrap bronze intended for recycling, and he saw, too, evidence for a traveling tinker on board. Discoveries made at the site, however, in the 1980s, 1990s, and 2010 by Bass and the Institute of Nautical Archaeology have augmented the bronze assemblage significantly—the catalog now stands at 480. This talk presents, first of all, an overview of the updated collection, contextualizing it with metal hoards found

on terrestrial sites. The quantity of Gelidonya objects have increased and so too have the variety of types, which now include a complete sword, an impressively long spit, and an animal protome. One question addressed here is whether these quantitative changes and qualitative differences affect the original interpretation of the assemblage.

The bronzes still consist of broken tools primarily, and this talk explores how and why this massive collection of implements—the largest from a second-millennium context—came on board this ship. Indications of deliberate breaking exist on numerous tools, raising the question of whether such pieces reflect standardized fragmentation based on weight, shape, or size. The collection may not be as haphazard a pile of scrap as it first appeared. More incised marks have been noticed on the tools than previously recognized; they reinforce the suggestion, based on typological parallels, that many of these tools were used on Cyprus before being sold for their metallic value. Some tools are conspicuous by their absence if one accepts the premise of a traveling smith accompanying his goods. This study reexamines whether the bronze objects support that contention while illuminating the dynamics and practicalities of the international market for scrap bronze.

Beyond Boeotia: Mycenaean Eleon's Extraregional and International Connections

Bryan E. Burns, Wellesley College

Ancient Eleon overlooks the broad plain of eastern Boeotia, which links Thebes to the Euboean Gulf and the harbor at Aulis. This location positioned the site's inhabitants of the Mycenaean era to make direct connections beyond the region, as well as participate in exchange networks controlled by the palatial authorities in Thebes. Surveying a variety of non-ceramic artifacts found in the Greek-Canadian excavations at Eleon, this paper evaluates the potential role of imported objects in the forging of economic, political, and cultural bonds across the Aegean and further to the eastern Mediterranean.

In the early Mycenaean period, before the rise of Theban power, the people of Eleon reached beyond Boeotia for the acquisition of prestige objects such as weapons and jewelry. Only select individuals of the early Mycenaean period were buried with non-local objects. These include a bronze dagger typical of southern Greece and a seal stone likely imported from Minoan Crete. An ivory pommel is the clearest evidence for long-distance exchange, and a rare example of the imported material's introduction to central Greece in this era.

During the Palatial period, access to foreign goods and materials was largely structured through the exchange networks coordinated by Thebes, where Linear B tablets document control over Eleon's agricultural productivity. Archaeological evidence suggests that the site's residents participated in crafting ornaments that drew on foreign materials and styles. A steatite jewelry mold from Eleon is typical of Mycenaean workshops that transformed glass ingots imported from Egypt and Mesopotamia into ornaments carrying local iconography. A small human head carved from animal bone is cut flat across the back like Mycenaean ivory inlays, but bears stylistic features that suggest another eastern connection. These objects demonstrate that the consumption of external resources was not limited to palatial elite, but also included participants at secondary sites such as Eleon.

Session 1F: Joint AIA/SCS Workshop Archaeology for the General Reader: A Roundtable with NEH Public Scholars

Moderator: *Christopher P. Thornton*, National Endowment for the Humanities

Workshop Overview Statement

A scan of the bestseller lists or documentary programming on television shows that there is a substantial audience for broadly accessible, well-told histories of the ancient world. Yet much archaeological scholarship fails to reach this audience. Because of habit, training, or professional expectations, many archaeologists write narrowly focused books for their fellow academics in language that lay people find inaccessible. These books may create scholarly buzz or satisfy tenure requirements, but they do not usually interest broader groups of readers. The result is a public that is often ignorant of antiquity or overly reliant on histories that are intellectually suspect. In recent years it has become clear that many archaeologists want to break this pattern by writing for general audiences. This desire is reflected in the strong response to the new Public Scholar grant program being offered by the National Endowment for the Humanities. The program, which offers fellowships to those writing well-researched books in the humanities aimed at a broad readership, has attracted over one thousand applications in its first five years. The archaeologists in this applicant pool want to be read widely and to contribute to discussions beyond their narrow academic fields. For many, that's why they got into archaeology to start with. In this roundtable session, two archaeologists, a classicist, and a historian who have won grants in the NEH Public Scholar Program will discuss their experience writing for a general audience. The goal is to encourage other archaeologists who are interested in doing this kind of work. These speakers will share their experiences and offer advice, especially on the differences between public scholarship and academic writing. The discussion will be led by the NEH Director of Research Programs, who will ask questions including:

- Why do you want to write for general readers?
- What did you learn in the process?
- How does writing for the public change the way you conceptualize, research, and write?
- How is publishing with a trade press different than a university press?

The moderator will also allow significant time for questions from the audience. This mixture of conceptual and practical questions will help those in the audience who would like to reshape their scholarship for general readers.

Panelists: *Jodi Magness*, University of North Carolina-Chapel Hill, *Eric Cline*, George Washington University, *James Romm*, Bard College, *Robert Kanigel*, MIT, and *Elise Friedland*, George Washington University

Session 1G: Colloquium

Connectivity and Colonialism: Tracing Networks, Influences, and Agents

Organizer: *Catherine K. Baker*, Bryn Mawr College

Colloquium Overview Statement

The study of ancient Mediterranean colonization has experienced a profound shift in recent decades with the application of postcolonial perspectives and other approaches drawn from the social sciences. In a field which once focused almost solely on the degree to which colonies emulated and interacted with their founding city or state, there is now a growing recognition that a variety of influences and agents—colonial, indigenous, or external in origin—could shape the form and development of Mediterranean colonialism and colonies.

Among these new approaches, a focus on connectivity—through the application of network theories, the examination of landscapes of memory, or by tracing the movement of goods, for example—has offered a productive avenue for considering the forces that shaped the material culture of both colonies and their neighbors. This network-centered shift has resulted in new and original perspectives on the nature of colonization and colonialism in the ancient Mediterranean.

This colloquium draws on this important turn in colonial studies by highlighting the importance of the systematic examination of connectivity in the study of Mediterranean colonization and colonial identities. The innovative studies presented here cover a broad chronological and geographical span, from the Punic to the Roman period, and examine colonial networks from a variety of vantage points, such as the architecture and décor of cult spaces, the activities of craft workshops, the role of cults in mediating power dynamics and memories in and outside colonial settlements, and the movement and activities of individuals and families in colonial settings.

These papers examine a broad range of colonial connections, including mythical and ritual connections between Melqart and Hercules in Punic and Roman colonial contexts (“Myth, Memory, and Migration”), religious ties between a re-founded settlement at Morgantina, its indigenous past, and its present situation in colonial Sicily, (“Collective Memory and the Refoundation of Morgantina”), craft and stylistic connections between Etruscan communities and Roman colonies (“Roman Colonization and Etruscan Networks in the Maremma”), and shifting social networks and the role of individual and family agency in Roman colonies in central Italy (“A [Colonial] Social Network”). These groundbreaking approaches, which trace colonial networks at multiple scales and through a variety of lenses, articulate the potential for connectivity-centered analyses to shed new light on the character of colonial assemblages, identities, and histories in the ancient Mediterranean.

Myth, Memory, and Migration: Melqart as a Model for Colonization in the Western Mediterranean

Megan Daniels, University of New England (Australia)

Recent research has emphasized the catalyzing role of the Phoenicians in Mediterranean-wide expansions in the early first millennium B.C.E, especially regarding the creation of longstanding colonial networks via religious practices. Accordingly, the importance of gods like Melqart in facilitating colonization and settlement has received renewed interest in two areas. The first area involves Melqart's relationship with deities like Herakles/Hercules, and the role of these syncretisms in scaffolding colonial expansion and appropriation. The second area focuses on Melqart's role in linking the Phoenician homeland, particularly Tyre, with its western colonies, a role scholars see as emerging in later stages in wake of Carthage's rise to power in the mid-first millennium B.C.E.

I examine the shortcomings of these two areas in light of recent archaeological research in the western Mediterranean. Both areas have been fruitful in elaborating the role of myth and ritual in structuring long-distance colonial networks. The first approach, however, tends to study religious syncretisms in order to understand the logic behind Greco-Roman colonization, and relegates the Phoenician role to the background. The second approach relies largely on later literary sources to articulate the networks established between Tyre and its colonies, especially Carthage and Gades, and thus limits our knowledge of the earliest phases of expansion in the Iron Age, during which these mythical and ritual paradigms surrounding Melqart formed and spread.

Following this examination, I then proceed down two avenues. The first avenue involves an analysis of (a) new ceramic and radiocarbon chronologies for the Phoenician arrival in the Atlantic regions; and (b) early religious activity at sanctuaries like El Carambolo in Spain and Lixus in Morocco, among others. I will use this analysis alongside literary sources to articulate some of the salient aspects of the myths and rituals surrounding Melqart, arguing for their crystallization in these earlier phases. Such aspects include association with water, death and resurrection, and dynastic rule, and the intersection of these symbolisms into ideologies of colonial power and expansion. The second avenue will jump forward in time to the Roman occupation of Hispania, examining the mythical and iconographic symbolisms associated with Hercules emphasized by emperors like Augustus, Trajan, and Hadrian in wake of westward expansion. By emphasizing the early roots of these symbolisms, I demonstrate the Phoenician substratum in Roman colonial worldviews and, more broadly, the longevity of mythical and ritual memories to scaffold ideologies and experiences of colonization across numerous cultural groups and periods.

Collective Memory and the Refoundation of Morgantina: Building a Resilient Network

Leigh Lieberman, The Claremont Colleges

Much of the scholarly work concerning the colonial foundations of Sicily focuses on questions of origins; however, since their original foundations, these

settlements saw the rise of powerful tyrants, assaults by foreign forces, and both hostile and friendly engagements with citizens from distant and neighboring settlements. During the Classical Period, settlements were regularly destroyed and subsequently refounded, yet few approaches account for the myriad influences and agents that contributed to the collective identities constructed during these complex social and political circumstances. In this paper, I focus on Morgantina, a Sikel settlement in central Sicily that was decisively razed by the Sikel general Duketios and refounded in the mid-fifth century (Diod. Sic., 11.78.5). The date of and agents responsible for settlement's refoundation have for a long time been the subject of debate, but scholars have paid less formal attention to the immediate concerns of the colonists that came to occupy the refounded settlement.

I argue that a close consideration of the community's choices concerning their built environment can illustrate how, in the face of destruction and demographic change, the Morgantinoi defined both their relationships with their colonial neighbors and membership to their collective. In this paper, I examine three choices made by the Morgantinoi following the refoundation of their settlement. First, despite relocating, the community of classical Morgantina frequented select cult sites associated with the former settlement, and regular ritual processions to these inveterate sanctuaries encouraged the Morgantinoi to regularly engage with the remnants their past. Second, both the physical layout and civic organization of the refounded settlement drew evocative inspiration from select neighbors. Third, while no peripteral, Greek-style temples have been found at the site, several so-called courtyard sanctuaries find suggestive parallels in other Sicilian settlements, encouraging us to rethink the nature of public religious traditions across the island. I conclude that through the careful manipulation of their built environment the Morgantinoi of the Classical and Hellenistic Periods not only demonstrated a keen awareness of their past, empowering both new members of the community and subsequent generations to preserve the collective memory of their shared history, but also established conspicuous ties to their neighbors.

Roman Colonization and Etruscan Networks in the Maremma

Sophie Crawford-Brown, Rice University

Recent studies have suggested that colonial populations in Republican central Italy were far more heterogeneous than previously thought. Settlers arriving in newly conquered territories did not live in isolation and simply supplant eradicated local groups. They were neither ethnically nor culturally uniform, meaning that no clearly defined colonial identity could be easily imported into a newly built town. Such identities had to be constructed. This process, I argue, relied heavily on local interactions and on the conscious insertion of colonies into preexisting local networks.

Taking the Maremma region of southern Tuscany as a case-study, this paper examines the commercial relationships between several Etruscan towns before and after the founding of the Latin colony of Cosa in 273 B.C.E. This area had long been a center of Etruscan artistic innovation, with towns such as Vulci, Pyrgi, and Tarquinia producing some of the most impressive examples of Etruscan art and monumental architecture. Analysis of the early finds from Cosa, particularly the

architectural terracottas that decorated the town's temples in the third and second centuries, suggests intimate ties with earlier Etruscan centers. In many cases, the Etruscan towns and Latin colony appear to have been employing the same workshops or even artisans, with the result that their religious buildings would have had a remarkably similar appearance. Furthermore, the colonists seem to have actively sought out information on local cults and shrines, and in many cases to have molded their own religious identities to fit the mythic and religious history of the surrounding landscape—a phenomenon particularly visible in Cosa's temple decoration. This argues strongly against the notion that Cosa sought to imitate or align itself visually with Rome, and urges a reexamination of the role of local and regional networks in shaping Republican colonization processes more broadly.

A (Colonial) Social Network

J. Troy Samuels, Indiana University, Bloomington

This paper uses social network analysis tools to examine the changing connections between Rome, her colonies, and other Italian urban sites through the lens of individual and familial experience. In particular, this paper uses a diachronic perspective to examine the changing roles that connectivity played in structuring Italian colonial life.

Rome's Italian colonies have been the subject of increased scrutiny over the last decade as the formula that a colony = an archetypal Roman town, spreading a central culture to the periphery, has been deconstructed in favor of more nuanced, multi-directional models of Roman-colonial and Roman-Italian interactions. In light of these developments, this paper moves beyond viewing the colony as a structure and examines systematically the people who occupied these spaces.

This paper uses the techniques of formal social network analysis to model colonial connectivity over time and repopulate our narratives of an interconnected Italy. I examine five colonies from different regions of the Italian Peninsula and with different foundation and settlement histories (Cales, Luna, Venusia, Luceria, Ariminum). I collate the epigraphic and literary evidence for individuals and family groups that were active in these colonies using prosopographical tools and track the divergent relations of these colonial occupants over five centuries (fourth century B.C.E. – first century C.E.). Of particular note is the bimodal distribution of status in the data set; freedmen and the municipal elite are particularly visible. Changes in their roles as interlocutors between center (Rome) and more liminal areas (colonies) suggest different agencies as the role of colonial foundations shifts and these sites lose some of their "colonial" nature. This paper uses connectivity as a heuristic for exploring the divergent lived trajectories of individuals and families across the lives of Rome's Italian colonies.

Session 1H: Open Session

History of Collecting and Archaeological Thought

A Mummy for the King: Aristocratic Patronage and Egyptian Archaeology in the Early Eighteenth Century

Jennifer Westerfeld, University of Louisville

The French Jesuit missionary Claude Sicard served as the superior of the Jesuit residence in Cairo from 1712 until his death in 1726. As his missionary work took him from one end of the country to the other, he carried out extensive research into Egypt's archaeology and historic geography, producing some of the first scientific maps of Egypt and working to reconcile classical Greek and Roman descriptions of pharaonic Egyptian sites with the ruins still visible on the ground. This research was supported—inadequately, Sicard often complained—through a complex network of patronage that connected him to the merchant communities of his native Marseille, to the upper echelons of the Jesuit hierarchy, and ultimately to the royal court at Versailles. A significant proportion of Sicard's surviving correspondence concerns his efforts to secure research funding from his various patrons; for this reason, he represents a unique opportunity to examine the economic basis and material conditions of archaeological fieldwork at the very dawn of Egyptology.

This paper draws on both Sicard's published correspondence and unpublished records from the National Archives in Paris in order to reconstruct a detailed picture of the circumstances under which Egyptological knowledge was produced in the first quarter of the eighteenth century. Whether he was being asked to provide a dog mummy for the amusement of the teenage king of France or being ordered to find employment for the protégé of the French ambassador to Constantinople, I argue that the demands of Sicard's patrons played a fundamental role in shaping his research output.

Separate But Not Isolated: Foreign Travelogues and Their Impact on Cretan Archaeology (ca. 1660–1840)

Aimee M. Genova, Independent Scholar

Arguably, the beginnings of Cretan archaeology were impacted by early accounts from European travelers who visited Crete under Venetian and Ottoman rule. Erudite travelers to Crete contributed to the foundations of archaeology and its disciplinary framework because their travelogues served as a way to locate and identify ancient sites. The textual products of antiquarians and Grand Tourists were, in general, a useful tool later used by archaeologists throughout Crete because of the writers' reception of classical authors and ancient sources.

Travelogues and reports from visitors like Cristoforo Buondelmonti (1386–ca. 1430) and locals like Francesco Barozzi (1537–1604) significantly contributed to the chorographic studies of Crete because they documented descriptions of local sites, under Venetian rule, that were otherwise known mainly through ancient sources. Through their descriptions, they provided a guide for other travelers and researchers who followed, even though some of their analyses were later

challenged. As the 'Venetokratia' began to dissolve in Crete, a new genre of travel emerged throughout Europe known as the Grand Tour (ca. 1660–1840), and paved the way for urban travelers like Robert Pashley (1805–1859).

This paper aims to examine the impact of foreign travelers on Crete and how their observations were used later for archaeological excavations during the late-nineteenth and early-twentieth centuries. Although my investigation is grounded in the research of Nektarios Karadimas, Dudley Moore, and Richard Stoneman, I emphasize the importance that travelogues had on the development of Cretan archaeology because archaeologists relied on foreign guides as points of reference for sites that were eventually excavated.

Decolonizing Aegean Prehistory: A Postcolonial Critique of the Prehistory/History Divide in Greek Archaeology

Amanda Gaggioli, Stanford University

Within the realm of New World, African, and Indian archaeology, the discursive and methodological implications of a prehistory/history divide have provoked increasing discussion and criticism over interpretations of cultural continuity and change (Lightfoot 1995; Oland et al. 2012; Schmidt and Mrozowski 2014). This debate however has had a lesser impact on the discipline of Classical Archaeology. In Greek Archaeology, there exists a disciplinary divide between Aegean prehistory (from the Paleolithic up to the end of the Bronze Age) and Classical Archaeology proper (beginning with the Early Iron Age) with the line drawn at approximately 1200 B.C.E. This paper addresses the question of prehistory in both the European and non-European contexts and argues that the place of Aegean prehistory encounters similar methodological problems and assumptions argued in debates concerning the dividing line between prehistoric and historical archaeology in New World contexts. A decolonization of the prehistory/history dividing line within Classical Archaeology is hence called for in order to reveal the profound influence that the construction of cultural capital of ancient Greece has had on producing a prehistoric Other. A historiography of the formation of a dividing line between prehistory and history in Greek Archaeology reveals first the growth of nationalistic attitudes and ideologies in Greece during the late nineteenth and twentieth centuries. Second, it exposes the means by which Greek prehistory provided roots for European ancestry beginning in the nineteenth century. Third, it demonstrates how beginning from the Renaissance era traditional ideologies in Classics impacted the organizations and divisions of the discipline. A historiographical deconstruction of Aegean prehistory which is theoretically grounded in colonial and postcolonial studies provides a means to reformulate established chronological divisions in Classics for the primary benefit of studies concerning cultural continuity and change over the prehistory/history divide.

Classical Antiquities and the Nazi Elite

Irene Bald Romano, University of Arizona

Much has been written about Hitler's interest in classical antiquity and its appropriation under National Socialism, but the question that has not been asked is:

do the rhetoric/propaganda and classical aesthetic match the practice among the Nazi elite of collecting antiquities? It would seem evident that classical antiquities, in particular, would have been much desired by Hitler and the upper echelons of the Nazi party, been on center stage in “art as politics” under National Socialism, and been sought after in the quest for great works of art for museums in the Reich. Yet, there is only limited evidence to show this was the case.

Classical antiquities were exchanged within the culture of gift-giving among the Nazi elite and as diplomatic gifts. The Nazis made several purchases of classical antiquities in Italy, while other antiquities were plundered. Archaeological collections were taken from Greece to Austria and Germany. We have a relatively full understanding of Göring’s antiquities collection, while a picture of Hitler’s is more elusive. Especially problematic is that among the 6,700 works of art acquired for the planned but never realized “Führermuseum” in Linz there are only around thirty antiquities. It seems clear from this detail, as well as from architectural drawings and archival sources that the exhibition plan did not include antiquities; it was impractical to compete with the outstanding classical collections in Berlin, Munich, and Vienna.

How else can we explain the disconnect between the rhetoric and collecting practices of the Nazis? For the greedy Göring, classical antiquities were decorative pieces that validated his social standing. Hitler was indeed passionate about classical antiquity, yet there was a philosophical tension within the Nazi party about the role of the Greek and Roman worlds versus prehistoric Europe in defining “German-ness” and the origins of the Aryan race.

Session 1: Colloquium

Clay and Colors: The Painted Terracotta Plaques from Etruscan Caere

Sponsored by the Etruscan Interest Group

Organizer: *Daniele Federico Maras*, Soprintendenza ABAP per l’area metropolitana di Roma, la provincia di Viterbo e l’Etruria Meridionale (Italy)

Colloquium Overview Statement

Terracotta plaques painted before firing and attached as wall decoration in aristocratic residences and sanctuaries were a special production of the Etruscan metropolis of Caere in the Late Archaic period (late sixth to fifth centuries B.C.E.). Francesco Roncalli’s seminal 1965 study acknowledged 53 examples found in excavations or preserved in international collections. In 2018, however, an extraordinary quantity of fragments, belonging to at least 400 new plaques, were presented to the public in an exhibition and conference held in Santa Severa (Rome), as a consequence of their rescue by the Italian Carabinieri Tutela del Patrimonio Culturale.

Scientific analyses, technical conservation, and art-historical evaluations have continued, with special attention to issues of authenticity and production techniques. Multidisciplinary research has significant consequences for our understanding of the known and published plaques, such as the masterpieces of the Campana series at the Louvre and the Boccanera series at the British Museum.

The expanded corpus of painted plaques provides scholars with an unparalleled opportunity to appreciate and study a unique genre of pictorial art that replaced the more usual paintings on perishable wooden panels, virtually all of which have been lost.

The proposed panel presents new discoveries from the recent analysis of the rescued examples (numbering over 1000 fragments), along with contributions by the curators of museums where several noted architectural paintings are on display.

The papers tackle several issues in turn: technical aspects relating to the production, assemblage, and function of the plaques in the context of late-archaic Etruria; the question of the authenticity of some old and new examples; the iconography and iconology of the themes depicted; sigla and inscriptions relating to production; the known archaeological contexts where some of the plaques were found; the history of looting and repatriation of the fragments recovered from the illegal market; and the possibility of reuniting some recently rescued plaques with those preserved in international collections outside Italy.

Finally, significant contributions to the understanding of the painted plaques and their subjects is expected in the final open discussion, which will encourage a dialogue among academic researchers and museum curators and will be moderated by a noted historian of Etruscan art.

Discussant: *Francesco De Angelis*, Columbia University

Myth, Dance and War on Looted Painted Plaques

Alfonsina Russo, Parco Archeologico del Colosseo (Italy), *Leonardo Bochicchio*, Soprintendenza ABAP per l'area metropolitana di Roma, la provincia di Viterbo e l'Etruria Meridionale (Italy), *Daniele F. Maras*, Soprintendenza ABAP per l'area metropolitana di Roma, la provincia di Viterbo e l'Etruria Meridionale (Italy), and *Rossella Zaccagnini*, Soprintendenza ABAP per l'area metropolitana di Roma, la provincia di Viterbo e l'Etruria Meridionale (Italy)

This paper is devoted to the presentation of the painted plaques that have been recently repatriated in Italy, following a legal action of the Carabinieri TPC and with the help of the Swiss authorities and the cooperation of the Ny Carlsberg Glyptotek of Copenhagen. More than one thousand fragments were rescued from the international illegal market, belonging to more than 400 plaques previously unknown to scholars.

The subjects of the paintings include mythological scenes—featuring an entirely new series of the Labors of Herakles—dances, athletes and sports, and warriors and combat, along with geometrical patterns. It is apparent that these themes relate to the ideology of the Etruscan aristocratic elites as known from funerary and residential contexts of the same period.

Special relevance is attached to archaeometric analyses, which demonstrate that all the examined fragments were exposed to high temperatures in ancient times (TLD); the composition of clay is compatible with that of ancient terracotta artifacts (XRD/XRF, FTIR); and the pigments were fired together with the clay body in a single firing process (SEM). The varied palette of the paintings was therefore

the result of outstanding technical skill on the part of the Etruscan craftsmen, who were able to add gray, yellow, and even light blue to the standard red, orange, and brown tones of the terracotta pigments.

Finally, although the findspot of the majority of plaques (either looted or pre-served in old collections) is unknown, some fragments have been found in well documented archaeological contexts, including both cult places and necropolises. Some attention is therefore dedicated to the function of the painted plaques in the framework of the society and culture of Caere in the late sixth and early fifth century B.C.E.

Etruscan Paintings in the J. Paul Getty Museum

Claire L. Lyons, J. Paul Getty Museum, and *Elena Pontelli*, Scuola IMT Alti Studi Lucca (Italy)

Recent discoveries of sixth-century B.C.E. paintings from sites in southern Etruria have significantly expanded our understanding of the visual culture of Etruscan cities. Architectural plaques made of fired clay were installed in temples and elite residences, creating durable images that recall Pliny the Elder's remark (*Natural History* 35.6) about the great antiquity and longevity of Caeretan painting. The aim of this report is to frame three painted plaques in the J. Paul Getty Museum within the corpus of material known from Cerveteri, which has produced the greatest number of non-funerary paintings.

Initial publications of the Getty's plaques must now be revised following an in-depth study. A fragment with a male dancer is comparable to banqueters in several tombs at Tarquinia. Another piece shows a female lifting a *stamnos*, perhaps part of a mythical or ritual scene linked to the pervasive imagery of water-carriers. These fragments reflect the characteristic Ionian style of several notable archaic vase- and wall-painting ateliers, while the growing influence of Attic pottery is evident on a large plaque with a man holding a forked staff. In light of a matching panel with a *diskobolos*, he can now be certainly identified as an *agonothetes*, who superintended athletic games. Provenance research on these and related terracotta antefixes suggests that the group originated in the vicinity of Cerveteri.

Scientific analysis conducted in 2018 produced further information about the plaques' mineral pigments, authenticity, and restoration history. Ultraviolet and infrared imaging revealed preliminary sketching and the presence of ancient graffiti. Such data helps to establish connections between paintings dispersed in museums and site repositories, bringing into sharper focus the exceptional pictorial tradition that transformed ancient Cerveteri into a city of images.

The Caeretan Plaques of the Louvre

Laurent Haumesser, Musée du Louvre (France)

The acquisition of the Campana collection in 1861 brought to the Louvre a set of six painted plaques from the necropolis of Caere, the very first documents of this kind to have been discovered. Five of them have been restored some years ago and we can now appreciate with much more accuracy the techniques of painting,

which offer a precious point of comparison for the documents discovered in more recent times.

But the sixth plaque had been greatly repainted by the restorers who worked for Campana: they composed an original scene, inspired by some vases from the Campana collection, using what was left of the original painting.

Three other plaques, which arrived in the Louvre a few years after the Campana collection, have the same story: the original decoration had largely disappeared and the Italian restorers created a new composition, following in part what they could see of the original painting.

A campaign of technical analyses and conservation in 2018–2019 consented to reveal what was left of the original decoration under the modern repainting of these four plaques. The presentation of this unpublished documentation adds thus four more exemplars to the precious corpus of the Caeretan painted plaques.

Literacy and Production: Numbers, Sigla, and Signatures on the Etruscan Painted Plaques

Rita Cosentino, Soprintendenza ABAP per l'area metropolitana di Roma, la provincia di Viterbo e l'Etruria Meridionale (Italy), and *Daniele F. Maras*, Soprintendenza ABAP per l'area metropolitana di Roma, la provincia di Viterbo e l'Etruria Meridionale (Italy)

In 2017 a regular excavation in the area at the east of the sanctuary of Manganello, in the suburb of the ancient Etruscan city of Caere, has brought to the light an artisanal district with subterranean cavities and channels for water draining. Among the findings a fragment of a painted plaque stands out for it preserves part of a figural scene and an Etruscan inscription incised before firing. The scene depicts a drunken Silen, presumably dancing and singing with open mouth and eyes wide open. Above him, a barely visible inscription records the name of the painter and the location of the workshop: "I, Mur[---], (made this) in the (house) of Sathara." The technique of incision and the formula of the inscription, in comparison with other signatures of the Archaic period, provide a glimpse into the life of a late-Archaic Etruscan workshop of art, highlighting the social position of craftsmen and their dependence on aristocratic families.

In addition, several plaques present numeral marks and sigla painted before firing in order to facilitate their assemblage, thus informing on the level of literacy of the craftsmen involved in their production. One of the famous Campana plaques at the Louvre presents a painted Z (as has been recently discovered by D. Briquel 2016) and two plaques at the Boston Museum of Fine Arts, previously thought to be forgeries, have numbers and letters painted at their bottom. Most recently, the analysis of the fragments repatriated to Italy has demonstrated that many (if not all) plaques had special signs for the purpose of reckoning, setting in the right sequence and installing them, and that different workshops had different styles of sigla.

Session 1J: Open Session

New Advances in the Archaeological Research of South Italy and Sicily

Bridging the Gap: Producers and Consumers in Corinth and Syracuse

Giulio Amara, Scuola Normale Superiore of Pisa

This paper investigates the relationships between Corinth and Syracuse during the Archaic period, analyzing the distribution of Corinthian pottery between the motherland and its colony. It deals with unpublished Corinthian pottery from the votive deposit under the Temple of Athena in Syracuse and sheds new light on the meaningful occurrence of the same ceramic material from the Potters' Quarter and other well deposits in Corinth. An extraordinary votive deposit was discovered under the Athenaion: excavations were carried out from 1910 to 1917 and a large amount of imported Corinthian pottery (eighth to sixth century B.C.E.) was found from a preexisting archaic sanctuary dating back to the foundation of the colony. These materials find good comparisons in Corinth, from some closed and well-dated archaeological contexts, providing significant evidence of contemporary use and trade of the same pottery. This paper aims to bridge the gap by examining the unpublished pottery in a Mediterranean perspective, since the valuable conference on Corinth and the West (*Corinto e l'Occidente. Atti del trentaquattresimo convegno di studi sulla Magna Grecia, Taranto 1994 [Taranto 1995]*) did not consider the archaeological evidence from the Temple of Athena in Syracuse.

The paper focuses on the following aspects: 1) characteristics of the archaic votive deposit under the Temple of Athena; 2) attribution of some fragments to Corinthian workshops and their occurrence in Corinth; 3) value of the oldest imported Greek pottery from the votive deposit and related evidence from Corinth; 4) role of Syracuse and Sicily in trade and mass distribution of Corinthian pottery.

Kitchen Culture and Metal Utensils: Preliminary Conclusions from the Contrada Agnese Project at Morgantina

Alex Moskowitz, University of Michigan, Catherine Schenck, University of Michigan, and Leigh Anne Lieberman, The Claremont Colleges

The tools employed in the production and consumption of food offer vital insights concerning culinary habits in the ancient world. Through close study of these utensils, we can better understand the culturally conditioned practices surrounding food and the economic relationships that governed them. Historically, the study of foodways in the ancient Mediterranean has relied almost solely on the study of ceramic vessels because of their abundance in the archaeological record. Yet, the culinary toolkit of the ancient household was far more diverse. In this paper, we focus on the metal kitchen utensils recovered from a modest Hellenistic house at the central Sicilian site of Morgantina, presently being excavated and studied by members of the Contrada Agnese Project (AEM:CAP).

Our discussion considers a variety of kitchen utensils, including strainers, graters, skewers, and knives, in order to highlight the breadth of practices that may

otherwise be imperceptible in the archaeological record. In particular, we focus on the role of these utensils in the preparation and consumption of meats, cheeses, and wine. This approach complements earlier scholarship on the site which analyzed culinary practices in central Sicily through changing ceramic forms. Our assemblage provides evidence for open fire cooking and the persistence of long-standing practices for straining and serving wine. To further contextualize our hypotheses, we consider preliminary conclusions from relevant macrobotanical and faunal studies at Morgantina and look at assemblages from other sites across the Mediterranean, specifically Olynthus and Pompeii. By performing a systematic analysis of culinary tools and utensils excavated by AEM:CAP and connecting them to broader regional patterns, we allow for a more complete understanding of Hellenistic kitchen culture and a better picture of daily life in the ancient world.

Trinacrian Textile Tools: A Contextual Analysis of Loomweights from a Hellenistic House at Morgantina (Sicily)

Kevin Ennis, Stanford University, and Max Peers, Brown University

The recent excavation of a modestly appointed Hellenistic house at the central Sicilian site of Morgantina by the Contrada Agnese Project (CAP) yielded over 150 ceramic loomweights, attesting to the centrality of household textile production in the economy of the site. While such quantities are typical of residential contexts at Morgantina and contemporary Sicilian sites, the lack of recorded context in the course of early excavations often limits what can be said about these tools. The careful collection strategies of CAP, however, afford an opportunity to move beyond these limitations. In this paper, we focus on the manufacture of loomweights for household production and consider the organization of this considerable ceramic industry.

Our analysis of this contextualized data set analyzes variability in shape, weight, dimensions, and stamp iconography. Our preliminary results reveal that, during the third century B.C.E. at Morgantina, loomweights were produced to conform to two weight classes, but neither shape nor dimension was standardized. Even loomweights found together in primary use contexts show high levels of variability. Similarly, loomweight stamps exhibit significant diversity. Finally, the excavation found no evidence that tools were manufactured in the household, and the lack of related implements, such as spindle-whorls, indicates localized spaces within the urban core for different stages of textile production.

Based on these results, we argue that household textile production stimulated a market for loomweight manufacture dictated by consumer demand for different weight classes. However, despite the scale of the industry—as evidenced by the 150 loomweights from our building alone—production at Morgantina never became standardized, instead being shaped by consumer need, with unique commissions for specific households. These conclusions counter assumptions of mass production, and suggest a different relationship between household production and tool manufacture, with implications for our understanding of the organization of this vital economic activity in Sicily.

Ritual and the Birth of an *Apoikia*: Seventh-Century Cult in the Main Urban Sanctuary of Selinunte, Sicily

Andrew Farinholt Ward, College of William and Mary, *Clemente Marconi*, Institute of Fine Arts, New York University, and *Roberto Micciché*, University of Palermo

Founded on a series of hills overlooking the sea in southwestern Sicily, the early history of the Greek *apoikia* of Selinus (modern Selinunte) has sparked both interest and controversy. The date of the city's foundation—628 B.C.E. by Thucydides and 650 B.C.E. by Diodorus—plays a major role in the absolute dating of Corinthian vase painting, while the scanty evidence of early habitation previously discovered in various parts of the settlement has been used to argue for both antagonistic and peaceful interactions between the Greek settlers and the indigenous populations in the hinterland.

Excavations in the southern area of Selinunte's main urban sanctuary, sponsored by the Institute of Fine Arts–New York University and the Università degli Studi di Milano, and in collaboration with the local Archaeological Park, have unearthed a wealth of new evidence for the settlement's early history in the seventh century. The Summer 2019 season is particularly significant in this regard, and is the main focus of this presentation. The architectural remains of at least two early structures were discovered beneath the sanctuary's sixth-century stone temples. While the utilization of mudbrick, rammed-earth (*pisé*), and other construction techniques provide new insight into early Greek architecture in Sicily, several distinct ritual depositions associated with these structures are as, if not more, striking. Ranging from spears driven into the soil of the newly settled colony, to an entire deer antler deposited as part of a seventh century foundation deposit, these discoveries deepen our understanding of how the first generations of Selinus initiated cultic practice in an area that would see continuous (largely ritual) use until the abandonment of the city around 250 B.C.E.

Considered alongside recent discoveries from several other Greek and Phoenician settlements in Sicily, the evidence for early colonial religion at Selinus can be understood not only as an assertion of local identity, but also as a very intentional situating of a nascent community within the wider transcultural cultic landscape of seventh century western Sicily.

A Pictorial Prayer from Ancient Syracuse

Rebecca Sinos, Amherst College

A most interesting, though little known, object found in Paolo Orsi's excavations in ancient Syracuse is a miniscule sheet of gold, found in the mouth of a corpse (NSc ser. 5, vol. 4, 1907, 743, fig. 2a). Incised on this delicate lamella is a janiform image of two female figures, designated as "Demetra-Kora?" in Orsi's publication. My aim here is first to support Orsi's identification of the image as Demeter and Kore, drawing on the evidence of fourth-century janiform figurines from Syracuse published by Angela Manenti et al. in the Newsletter of the Coroplastic Studies Interest Group 6, summer 2011. Like our janiform figures, these terracotta figurines have conjoined female heads differing from one another in details of facial features, hairstyles, and jewelry; their findspots link them clearly to the worship

of Demeter and Persephone. Then I will offer an interpretation of the image in the light of vase paintings and a marble statuette from Eleusis depicting Demeter and Persephone embracing, as in the lines describing their joyful reunion in the *Homeric Hymn to Demeter*. I suggest that this little gold image provides a pictorial complement to the “Orphic” texts inscribed on other small gold sheets found in graves in Sicily, South Italy, and other parts of the ancient Mediterranean world, which express the hope of a special afterlife for the deceased. One describes the deceased sinking “into the lap of the Mistress, the Chthonian Queen,” an image of the initiate in the lap of Persephone that evokes the great reunion of Persephone and Demeter in the Homeric Hymn. Our image represents a pictorial prayer for such a blessed state of happiness, a valuable addition to our evidence for ancient Greek hopes for the afterlife.

Investigating Indigenous and Greek Communities Along the Ionian Coast: The 2019 Excavations at Inconornata “greca”

Sveva Savelli, Queen’s University, and Spencer Pope, McMaster University

In summer 2019 a new excavation program conducted by McMaster University carried out fieldwork on the southeastern section of the plateau of Inconornata “greca.”

The site, located on the banks of the Basento River, preserves archaeological evidence of an indigenous “Oenotrian” settlement. From the second half of the eighth century B.C.E., well before the foundation of Metaponto by Achaeans, the community at Inconornata “greca” actively interacted with Greek merchants and potters visiting and residing along the coast of Italy; in particular, from the last quarter of the century an exceptional quantity of Greek ceramics were imported and began to be produced locally. The reasons for the massive presence of Greek material culture in an indigenous context have been, since the discovery of the site, at the center of a lively historical-archaeological debate aimed at defining the nature and characteristics of Greek presence along the coasts of Italy in the phases that preceded the foundations of the *apoikiai*.

This paper will present the results of the 2019 season. Following a preliminary geomagnetic survey, a pebble road was discovered running across the plateau and reveals an intricate topographical organization of the Oenotrian settlement. A hut or a complex of huts came to light on the southern margin; the archaeological evidence reveals cavities with a homogeneous filling consisting of the remains of the structure, meals, and utilitarian objects. Ceramic fragments, principally Oenotrian, such as impasto ware, *dolia*, geometric matt-painted, and Greek, including imported Protocorinthian pottery and subgeometric local ware, are attested in the same inhabitation. The association of indigenous and Greek pottery inside the settlement continues to stress the questions related to the ethnicity of the inhabitants at the site.

Session 1K: Open Session Fieldwork in the Insular Eastern Mediterranean

Centralization and Monumentality in the Early Bronze Age Cyclades: New Excavations at Dhaskalio

Evi Margaritis, Science and Technology in Archaeology and Culture, Cyprus Institute, *Colin Renfrew*, McDonald Institute for Archaeological Research, University of Cambridge, *Michael Boyd*, McDonald Institute for Archaeological Research, University of Cambridge, *Irini Legaki*, Greek Archaeological Service, *Giorgos Gavalas*, Greek Archaeological Service, *Marie Floquet*, Aix-Marseille Université, *Myrto Georgakopoulou*, Science and Technology in Archaeology and Culture, Cyprus Institute, *Myrsini Gkouma*, Science and Technology in Archaeology and Culture, Cyprus Institute, *James Herbst*, ASCSA Corinth Excavations, *George Kazatzis*, Greek Ministry of Culture, *Ayla Krijnen*, Vrije Universiteit Amsterdam, *Nathan Meyer*, University of California, Berkeley, and *Ioanna Moutafi*, McDonald Institute for Archaeological Research, University of Cambridge

New excavations on Dhaskalio (2016–2018), west of Keros in the Small Cyclades, have investigated the site's rapid expansion in the mid-third millennium B.C.E., the evidence for intensification and extensification in the subsistence base, the apparent architectural monumentality of the site, and the centralization of resources and practices.

An extensive and monumental construction program turned the rocky islet into an almost completely overbuilt area. Planning and ambition are evident in all areas excavated, with a system of drainage channels underpinning an architectural scheme dependent on massive terraces to create flat spaces for dense structures made of marble imported from Naxos. A complex access route has been traced from the channel causeway to the summit, at that time an open enclosure of as yet unknown purpose.

All materials were imported to the site, including pottery, everyday artifacts and food. Extensive analyses of artifactual and environmental data are currently underway in order to determine the everyday life of a site which may not have been a simple settlement. Craft specialization is most evident in the metallurgical finds, which include five intact clay hearths, unique in the Aegean. There is detailed evidence for the *chaînes opératoires* in working of copper, lead, silver, and gold.

The excavation was conducted using a detailed, all-digital recording system based on iDig, with recovery protocols for samples and micro-artifacts on an extensive scale. The excavations and the post-excavation work now underway demonstrate the antecedents of urbanization that can now clearly be discerned at Dhaskalio: a rapid expansion, coupled with centralization of resources, skills and persons, planned monumental architecture, and changes in the subsistence base, all drawing in people and resources in a wide network stretching beyond the Cyclades.

Small World to Big World: Transformations in the Middle Bronze Age Cyclades

Evi Gorogianni, The University of Akron

In the present paper, the author contributes to the discussion about settlement patterns in the Middle Bronze Age (MBA) Cyclades. During the first part of the twentieth century, the prevailing thought was that the MBA was characterized by recession and abandonment especially in contrast to the Early Bronze Age (EBA), a period of burgeoning maritime activity and social complexity. Recent research and publications support the opposite conclusion—i.e., the MBA was a period of expansion and fermentation in the Cyclades, which were situated yet again in the middle of a very active seascape. While the distribution of MBA sites in the Cyclades is not as dense as the EBA sites, the nexus of known sites is nevertheless a significant departure from the “vacant landscape” described by early-twentieth-century scholars, though there is much yet to learn about life in the MBA Cyclades. Case in point is the recent discovery of a Middle Cycladic site under the fourth-century B.C.E. theater of Karthaia on Keos. The incidental discovery of this previously undetected site situated in a rather systematically studied landscape challenges us to amend the bigger picture about the MBA in many respects. The present paper tackles only a couple of these aspects, particularly focusing on evaluating the significance of Karthaia for (a) the study of the MBA Cycladic land- and seascape and exchange networks, and (b) the development of protocols for uncovering a larger proportion of the MBA landscape.

A New Minoan-Type Peak Sanctuary on Stelida, Naxos

Tristan Carter, McMaster University, Kristine Mallinson, University of Missouri Columbia, Vagia Mastrogiannopoulou, Independent Scholar, Marie N. Pareja, University of Pennsylvania, Georgia Tsartsidou, Ephoreia of Palaeoanthropology-Speleology, Todd Wong, McMaster University, Charlotte Diffey, Reading University, and Dimitris Athanasoulis, Ephorate of Cycladic Antiquities

Though Stelida (NW Naxos) is best known as a Paleolithic site, excavations in 2019 atop its highest peak revealed traces of later Bronze Age ritual activity of a type clearly influenced by contemporary Cretan (‘Minoan’) religious practices, one of only a handful outside of Crete itself. The ceramic assemblage is dominated by Neopalatial forms, mainly those for the transportation and consumption of liquids such as cups (conical, shallow, and ogival) and jugs, followed by tripod cooking vessels, baking pans, *pithoi* and *rhyta*. There was also significant evidence for in situ burning, including charcoal and calcined bone, while the deposition of numerous water-worn pebbles and other non-local stones recalls both earlier Cycladic ritual practice at Dhaskalio, and that of later Cretan peak sanctuaries. Other religious paraphernalia includes a Cretan stone ladle analogous to examples from Juktas, plus two possible terracotta figurines. While Cretan in derivation, most of the material culture appears local, with much of the ceramic assemblage dating to Late Cycladic I; the presence of pumice indicates the site was at least partly used after the Theran eruption. Finally, the site occupies a visually dominant location overlooking the main Bronze Age centre of Grotta, with clear sightlines of numerous islands including Paros, Thera, Kea, and Ikaria.

In this paper we argue: (i) that the site serves to raise the profile of Late Cycladic Grotta, (ii) that Stelida reflects a specifically Knossian influence, and (iii) how we need to consider the relationship with the broadly contemporary hilltop ritual activity at nearby Mikre Vigla.

The Small Cycladic Islands Project 2019: A Survey of Uninhabited Islands Near Paros

Alex R. Knodell, Carleton College, *Dimitris Athanasoulis*, Ephorate of Antiquities of the Cyclades, and *Zarko Tankosic*, Norwegian Institute at Athens

The Small Cycladic Islands Project (SCIP) is a regional archaeological survey of several small, uninhabited islands in the Cycladic archipelago. There is a rich history of archaeological survey and comparative island archaeology in the Aegean. SCIP's contribution is to narrow the territorial remit of an individual island survey, and at the same time expand the conceptual and comparative scope by surveying multiple islands with the same set of methods and in the context of the same project. All target islands are currently uninhabited, and many probably never sustained permanent populations. We know from other cases, however, that such places were put to a variety of uses at various points in the past, including goat islands, cemeteries, stopovers, and pirate hideaways.

In its initial field season in 2019, SCIP carried out comprehensive surveys of ten islets in the vicinity of Paros. Each island in the study area was the subject of a multi-method individual survey, which in most cases was carried out in one to two days. Fieldwalking methods are drawn from the tradition of Mediterranean intensive survey. We also focused on the documentation of archaeological features, including terraces, buildings, cisterns, quarries, and fortification walls. At places of particular interest (including Early Bronze Age, Archaic-Classical, and Late Roman-Byzantine sites), gridded collection provided further information. In addition, the team recorded notes concerning the physical environment. Fieldwork was carried out alongside a program of remote sensing, allowing us to identify soil, vegetation, and archaeological signatures on the ground that will contribute to the study of such landscapes elsewhere. This multi-method, comparative program of research provides new insights concerning various types of human activities—habitation and non-habitation, diachronic and incidental—that took place in such marginal island environments. This paper summarizes our goals, methods, and results.

Beyond Site Size Hierarchies: Reconsidering Small Survey Sites on Crete

Grace Erny, Stanford University

Since the 1970s, multiple intensive archaeological survey projects have been conducted on Crete. These surveys have yielded important information about rural settlement patterns and land use across all periods of human history. They have also documented many archaeological surface records and landscapes which have since been threatened or destroyed by development. However, analysis of survey results has often consisted largely of building settlement hierarchies based

on site size and, in particular, reconstructing episodes of population nucleation and dispersal across the landscape. In such analyses, surface finds are used largely to date periods of occupation at each site of interest, while much less attention is devoted to artifact type and function. Although site size is important, focusing primarily on size risks ignoring much of the information documented by archaeological surveys.

In this paper, I compare sites with Geometric through Hellenistic surface finds recorded by ten Cretan surveys, using a data structure that standardizes information across catalog entries from different surveys while retaining as much idiosyncratic detail as possible. I consider not only site size, but also the presence or absence of different categories of artifacts (i.e., *pithoi*, fineware), the presence and nature of surface architecture, site location, and duration of use. I focus on sites smaller than 0.5 hectare, which make up the majority of sites documented by Cretan surveys for these periods. Although these sites are generally classified together in site size hierarchies as “farmsteads” or “hamlets,” important differences in their surface assemblages suggest that they hosted diverse activities and comprised distinct social places in the landscape. This paper thus provides a model for using published legacy survey data to glean new insight into the structure of Cretan society, especially outside large settlements, during a poorly understood period in the island’s history.

Session 1L: Joint AIA/SCS Colloquium

Blurring the Boundaries: Interactions between the Living and the Dead in the Roman World

Sponsored by the American Academy in Rome

Organizers: *T. Corey Brennan*, Rutgers University, and *Lynne Lancaster*, American Academy in Rome

Colloquium Overview Statement

This panel will examine a series of questions regarding the relationship of the living and the dead in the Roman world, focusing especially but not exclusively on the Italian peninsula. What types of boundaries existed to separate the dead from the living, and in what situations were those boundaries negotiated, challenged, or outright transgressed? What can the evidence—literary, epigraphic, artistic, architectural, topographic, or otherwise—tell us about relationships between Roman cemeteries/tombs and their immediate surroundings? Can we find new ways of using the literary or material sources on funerary practices to make meaningful conclusions without losing sight of the variety and flexibility of individual responses to a deeply internal human experience? And most importantly, to what extent can we trace development over historical periods and between geographical regions in how the Romans—broadly conceived—responded to death and the dead?

Such an examination seems timely. Most scholarship on Roman funerary practices focuses on prescriptive or normative rituals, often with little acknowledgement that the textual evidence referred to a very small, elite segment of the

population (e.g., Edwards 2007; Hope 2009). Alternatively, studies that do address non-normative practices tend to subscribe to the belief that the separation of the dead from the world of the living was necessary to avoid pollution or contamination (e.g., Lennon 2014; Bond 2016). Recent projects that have touched on interactions between the living and the dead prompt us to question the existence, variety, and flexibility of the boundaries, whether conceptual or physical, that separated the two (e.g., Schrumpp 2006; Scheid 2008; Bodel 2014; Devlin and Graham 2015; Stevens 2017). Asking new questions and incorporating overlooked data will allow us to challenge dominant narratives and highlight a fuller complexity and variability of Roman experiences. In short, this panel aims to track attitudes towards death, and the ways that they changed through time, without falling back onto essentializing narratives that erase the potential variety and flexibility of individual responses.

With these issues in mind, this panel will bring together six scholars, at various stages of their careers, each bringing different perspectives to the evidence for practices and interactions between the living and the dead. A common thread that runs through the presentations regards the problems of identifying norms in Roman funerary practices, given that the exceptions are just as important to understanding what people did and how people lived (and died). After a ten minute introduction by participant #1 (full professor / archaeologist), who will serve as moderator for the session, four participants (#2 associate professor / archaeologist, #3 assistant professor / archaeologist, #4 new PhD / archaeologist, #5 full professor/cultural historian) will each present 20-minute papers, starting from the general (historical developments in funerary zones, the concept of death pollution), to more specific (patterns of reuse of tombs and burials, historical examples of corpse abuse). Participant #6 (full professor / social historian and epigraphist) will serve as respondent. In the discussion that will follow, the panel chair (#1) will encourage comparative perspectives regarding the concept of a permeable boundary between life and death.

The panel aims to offer presentations that combine types of sources on Roman funerary practices (ranging from skeletal, epigraphic, monumental and topographical evidence, to literary and legal texts, to historical comparanda from Renaissance Rome), and in doing so to highlight interactions between the living and the dead as much more nuanced than traditional views have posited. The ultimate goal is to encourage dialogue between scholars working on various aspects of death and funerary practices—including between those with potentially conflicting interpretations—to better understand the range and variety of evidence, to challenge dominant paradigms, and to push current interpretations of it in new directions.

Discussant: *John Bodel*, Brown University

Mapping Funerary Monuments in the Periphery of Imperial Rome

Dorian Borbonus, University of Dayton

In the periphery of Rome, the “world of the dead” and the “world of the living” were famously both distinct and intermeshed at the same time (Erasmus 2001). On

the one hand, burial was relegated to outside the *pomerium* on religious grounds; on the other, funerary monuments were regularly visited, their epitaphs commonly address passing travelers directly, and burial took place within the city at least occasionally (Volpe 2017). The boundaries between the living and the dead were thus permeable and they also changed over time as the *pomerium* was successively expanded (Patterson 2000).

The relationship between the world of the living and the dead is also shaped by the placement of funerary monuments. It has been observed, for example, that the placement of tomb monuments maximized their visibility in the late Republican period, followed by an increasing “internalization” during the imperial period (von Hesberg 1992). This reconstruction is plausible, but it also postulates that one normative practice gave way to another one—in this case self-representation to internalization. There are also counterexamples that do not fit the pattern: for example, Augustan *columbarium* tombs are predominantly oriented towards the interior and reverse the public face of tomb monuments long before the alleged internalization process started (Borbonus 2014).

Atypical cases like this indicate that actual behavior is more nuanced than rules and generalizations suggest, but simply emphasizing variability and context instead can also lead to an impasse. The challenge is to chart a course between excessive attention to context and overly broad generalizations. One way to differentiate our understanding of Rome’s funerary periphery is to map it at different scales. On the macroscopic level, the locations of all known or documented monuments around the city provide a panoramic view on an urban scale. The resulting distribution confirms a correlation with extra-urban roads, but it also shows different trends over time, such as the increasing clustering of dense funerary zones. These *necropoleis* indicate a tendency to separate burial functions from the surrounding landscape and thus consign interactions between the living and the dead to designated areas.

On a more detailed level, the micro-topographical development of these *necropoleis* often spans several centuries. Old monuments stood in close juxtaposition with new constructions and access to specific burials could lead through serpentine paths. The development of these cemeteries was clearly ruled by numerous factors, at least some of which were specific to individual sites. Local conditions could affect the development in unpredictable ways, for example by the burial of entire monuments in mudslides or the gradual rise of the ground level through repeated flooding.

In general, the two mapping scales recognize the global patterns and the unique situations that characterize the use of Rome’s periphery for burial and commemoration.

Death, Pollution, and Roman Social Life

Allison Emmerson, Tulane University

That the dead were polluting—i.e., that corpses posed a danger of making the living somehow unclean, offensive to both the living community and the gods—is thought to be among the most essential Roman beliefs about death. Over the past century, scholars of both literary and material culture have contended that a fear

of death pollution was a primary force driving funerary ritual, from the treatment of the corpse immediately after death to the rites performed at the end of the period of mourning, a perspective that has grown even more entrenched in recent decades (e.g., Lindsay 2000; Graham 2011; Lennon 2014; Bond 2016; Paturet 2017). Nevertheless, such an understanding tends to overlook an important point: our earliest references to death pollution emerged only in Late Antiquity (Serv., *Ad Aen.* 3.64, 4.507, 6.216). This paper problematizes the evidence for a widespread belief in contagious, miasmatic death pollution in the Republican and Imperial periods. I argue that the idea of polluting death emerges not from the ancient texts themselves, but from a modern reconstruction that combines those texts without critically evaluating chronological, geographic, or social variation, nor questioning the intentions of authors or requirements of genre. By reexamining the texts outside that traditional narrative, I find a new pattern underlying funerary practices, in which behavior was dictated not by a fear of pollution emanating from dead bodies, but by the obligations and emotions that death imposed on mourners. Importantly, such responses were neither externally dictated or dogmatic, but internal, changeable, and dependent above all on individual interpretation. Not only does this understanding accord better with the ancient evidence, but also it allows for space and flexibility, acknowledging all that we do not know—and cannot know—of how Romans grappled with the complexity of death.

Not Set in Stone: Provisions for Roman Grave Reuse

Liana Brent, University of Pennsylvania

In Roman law, the crime of tomb violation prohibited damage to the monument or memory of an individual, as well as unwanted disturbances or unauthorized additions to existing burials (de Visscher 1963; Kaser 1978; Caldelli et al. 2004; Thomas 2004; Paturet 2014). From the time that human remains were deposited into a grave, a tomb became a religious space (*locus religiosus*) that was legally defined, although its protection mainly concerned the integrity of the tomb structure or monument (Duday and Van Andringa 2017). This paper argues that the use of a legal definition of tomb violation in Roman funerary archaeology has led to the treatment of burials as time capsules, whose inherent worth derives from their sealed, intact nature. Those burials that have been looted, damaged, disturbed, or reused are routinely edited out of excavation reports, and their post-depositional histories are viewed as unwanted interventions because these burials were supposed to be sealed in perpetuity.

The invocation of time capsules in archaeological literature uses figurative language to explain the exceptional circumstances of preservation that safeguard against the effects of unwanted tampering. Consideration of the archaeological evidence, however, reveals that Roman burial receptacles and tomb structures were often provisioned to be opened and reused at later points. This phenomenon has rarely been acknowledged because the frequency and extent of Roman grave reuse have never been studied systematically at the inter-site or regional levels. A preliminary exploration of different types of burial containers, including sarcophagi, cremation urns, and even simple pit burials, demonstrates that the boundaries between the living and the dead were often more porous than has ever

been considered. The living came into contact with human remains at different points in the 'lifespan' of a grave, and these interactions should not be discredited as mere disturbances.

By bringing together the archaeological evidence for grave opening and reuse practices in different types of funerary receptacles, I challenge conventional notions about tomb violation in the archaeological record. My exploration draws on evidence from Roman cemeteries that are not usually considered alongside each other, which include semi-urban and rural cemeteries, monumental and non-monumental sites, as well as elite and non-elite burials. Throughout this paper, I advocate for a new understanding of Roman mortuary landscapes in which the boundaries between the living and the dead were routinely blurred in the adaptive use and successive reuse of tombs and burials. As a result, any attempt to write histories of Roman funerary practices needs to carefully discern how legal definitions of tomb violation can influence our interpretation of the archaeological record.

Transgressing the Dead in Ancient and Renaissance Rome

Mario Erasmio, University of Georgia

Corpse abuse in ancient Rome, or more properly, the corpse abuse of (in)famous individuals (Marius's ashes scattered by Sulla; Pompey's decapitation and corpse abuse; and Sejanus's corpse dragged by a hook then tossed into the Tiber) is frequently an epilogue to personal or political enmity. Corpses are vulnerable to abuse ranging from verbal and physical assault, mutilation, and non-disposal. Funerary rituals surrounding disposal magnify the effects of abuse against "life-like" corpses, including the prothesis that imitates the position of one in repose and the laying out of a body for cremation or burial in a supine posture. Etruscan sarcophagi with effigies of the deceased reclining and seemingly social extend the metaphor of life to the dead. Do transgressive acts against the dead extend or negate this metaphor of a permeable boundary between life and death?

This paper examines transgressions against the dead, in particular focusing on the treatment of the corpses of Agrippina the Younger and the so-called Tulliola. Tacitus (*Annals* 14.9), and Suetonius (*Nero* 34), offer varying accounts of Nero's inspection of his mother's corpse prior to disposal, but a similar feature of the narratives is Nero's sexualized viewing of Agrippina's body. Parallels of the transgression of an ancient Roman woman's corpse extend to the Renaissance. In 1485, the body of a perfectly preserved woman incorrectly identified as Tulliola, Cicero's daughter, was discovered in a sarcophagus unearthed along the Via Appia Antica and exhibited outside Palazzo dei Conservatori on the Capitoline Hill. For several days curious spectators lined up for an opportunity to view and touch the pagan corpse until Pope Innocent VIII Cybo had the body secretly removed and anonymously disposed. The abuse suffered by a potentially nude Tulliola at her "second prothesis" over one thousand years after her first, is as transgressive as Agrippina's, yet with more viewers/abusers at what was the first modern exhibition of an ancient corpse.

Session 2A: Workshop

Excavating Administration? Exploring the Methodologies of Studying Administrative Spaces in the Ancient World

Moderator: *Kaius Tuori*, University of Helsinki

Workshop Overview Statement

The workshop aims to explore and debate different methods of inquiry and their merits in detecting, analyzing, and modeling spaces that were used for public purposes such as administration. In recent years, the models offered by written sources for public building, such as royal palaces or public meeting places (i.e., agora and forum) have been criticized by recent studies that have proposed both a new way of conceptualizing public space but also the reenvisioning of the role of private buildings in public administration. The purpose is to bring together archaeologists, historians, and classicists for an interdisciplinary debate over how one can study administrative space in the ancient world, from the analysis of archaeological data to the models and interpretations that are drawn.

Significance to the discipline: To start a new, interdisciplinary discussion on how to interpret space and what models to utilize. While commercial or religious space has ready typologies and categories of finds, the study of administrative space has struggled beyond the identification of the *fora*, the putative city offices or archives to form a workable notion of how administration operated. The issue has become more pressing with new finds coming for example from the Metro C Line excavations in Rome.

The Chair opens with a short outline of the topic and the most recent theories. Presenter #1 compares the study of the spaces used in public and private spectacles such as readings and those of official proceedings such as trials. Presenter #2 discusses challenges in the identification of structures such as libraries and auditoria based on his excavations in Rome. Presenter #3 compares cases of Roman political administration in the cubiculum and considers the challenges that the multifunctionality of this space poses for these encounters. With comparisons of the small towns in the Greek and Roman worlds, Presenter #4 outlines methodologies of identifying activities in domestic settings. Presenter #5 discusses how to distinguish commercial and administrative activities in public spaces. After these methodological presentations, the chair will guide the discussion through four main themes: modeling activities, interpreting evidence, using spatial theories and comparison as method.

Panelists: *Kaius Tuori*, University of Helsinki, *Leanne Bablitz*, University of British Columbia, *Antonio Garcia Lopez*, University of Florence, *Harriet Fertik*, University of New Hampshire, *Samuli Simelius*, University of Helsinki, and *Steven Ellis*, University of Cincinnati

Session 2B: Open Session

Connecting Sherds to Big Questions in the Mediterranean

Putting My Best Leg Forward: Ritual Vessels, Neolithic Exchange Networks, and Prehistoric Corinth

Carolin Fine, Florida State University

The Neolithic was a critical period in human history, when the establishment of agriculture, sedentary society, and craft specialization all took place. Yet, despite an abundance of material from sites throughout Southeastern Europe during this period, overall little attention has been paid to elucidating connections between populations that were made across large geographic distances. This paper presents the results of new research concerning the Neolithic period at Ancient Corinth, focusing on a particular type of vessel known as the Neolithic *rhyton*. Conducted over a five-year period, this work focuses on reevaluating the prehistoric ceramic material excavated between 1896 and 2016, using both macroscopic techniques and pXRF analysis to help understand and establish Corinth's social and economic connections regionally and supra-regionally during the Neolithic. The Neolithic *rhyton* is an unusual—and therefore readily identifiable—shape that is broadly designated a “ritual object,” though its use is debated and as yet unknown. This vessel shape appears along the Adriatic coast, the Balkans, and into Italy during the Middle Neolithic (ca. 5500–4800 B.C.E.), and in the mainland of Greece during the Late Neolithic period (ca. 5300–4200 B.C.E.). The results of the ceramic analyses will help to clarify Neolithic trade and exchange networks on various scales: tracking similarities in style, technology, and decoration help to prove the existence of communication between populations. Investigations carried out at Corinth have so far yielded 192 fragments of *rhyta*. Of the 29 known sites that have produced *rhyta* in mainland Greece, the largest number from another single site is at Lerna, where excavators have found 13, indicating the centrality of Corinth within this Neolithic network that includes areas of the Balkans, the Adriatic coast, and the Mediterranean. The outcomes of this research will further the discussion concerning ritual and its role within a continuity of practice in during the Neolithic period of Europe, with Corinth as its focal point.

Sherd by Sherd: A Quantitative Analysis of the Miniature Pottery from the SE Ramp Deposits at Ancient Eleon, Boeotia

Charlie J. Kocurek, University of Cincinnati

Miniature vessels are abundant at Archaic and Classical Greek sacred sites yet remain understudied by scholars of Greek religion and ceramic production. A major limitation in the study of miniature vessels has been the lack of stratified deposits from a single site, particularly spanning the transition from the Archaic to Classical period. In this paper, I present a quantitative study of 16,000 miniature vessel fragments deposited in a series of stratified ramp levels at ancient Eleon in central Greece to ask the question, how can we better understand ritual behavior through an examination of votive consumption trends at a Boeotian sanctuary

between 600 and 400 B.C.E. While no sanctuary architecture has been identified, the well-stratified fill deposits, composed of sanctuary cleanup material, located on the ramped entrance to the site provide a unique opportunity to evaluate diachronic changes in the quantity and decoration of miniature vessels. This paper demonstrates a new approach by utilizing all whole and fragmentary vessels to magnify patterns and show that miniature vessels can serve as chronological indicators in their own right. The results of my study show three distinct phases, which correspond to existing ramp levels that can be dated more precisely by the other wares present – Pre-550 B.C.E., third quarter to late sixth century B.C.E., and Pre-480 B.C.E. Despite consistent ritual activity across these three phases, patterns emerge that show a shift in preference from local, Boeotian Kylix Ware, to imported, primarily Corinthian miniatures, as votives during the sixth century B.C.E. and an explosion of miniaturized shapes in the Late Archaic period. This paper investigates these patterns as the reflection of growing connections with other regions of the Greek mainland and demonstrates, for the first time, the value of performing a comprehensive quantitative analysis of fragmentary material to clarify the chronology of miniature vessels.

Through Thick and Thin: Identifying Multiculturalism and Personhood through the Evolution of Cooking Wares at Prepalatial Mochlos

Luke Kaiser, University of Arizona

In an era in which immigration dominates our media landscape, multiculturalism in archaeology has become increasingly topical. Previously, personhood was tied to prestige goods and elite consumption. Legarra Herrero (*Cambridge Archaeological Journal* 26 [2016] 249–67), however, states that a new model that mirrors the people who populate a site should replace this “prestige model.” Cookware, for example, represents persistent, learned activities, rooted in childhood and steeped in traditions that reaffirm both individual and group identity. This paper seeks to test this proposal on the cookwares from Prepalatial Mochlos (3000–1900 B.C.E) through an analysis of shape, surface treatment, and fabrics. The Early Minoan (EM) IA period sees the emergence of two wares, thin pierced dishes with untreated surfaces and burning on the exterior and thicker pierced dishes with dark burnishing and interior burning. These shapes have technological ties to the Cyclades and come in two metamorphic fabrics, one with silver micaceous inclusions and one without, both identified as local. A third, short-lived fabric appears in the EMIB period, a calcitic Kampos Group ware, that is associated with the Cyclades either through importation or imitation, appearing in both dish shapes. Finally, a fourth fabric surfaces late in the EMIIA period with granodiorite and gold mica inclusions. This fabric is not of local production and is associated with the Gournia-Vrokastro region to the west of Mochlos, and it is found in a new shape, the first cooking pot at Mochlos. This paper concludes that these fabrics and shapes imply a mature local tradition at the beginning of the Prepalatial Period with ties to the Cyclades. This local tradition is subsequently nuanced by a nonlocal technology and represents a new population at Mochlos, emerging due to population exchange, possibly intermarriage, between other communities with individuals bringing their own culturally persistent technologies with them.

Why Use the Wheel-Throwing Technique at Middle Minoan II (1800–1700 B.C.E.) Phaistos, Crete? Combining Experimental Archaeology with Macroscopic Analysis and Contextual Information

Ilaria IC Caloi, Ca' Foscari University of Venice

Several studies have been undertaken on ceramic technology in the last twenty years, and now there is a general agreement among scholars, about the introduction of the potter's wheel in Minoan Crete in (M)iddle (M)inoan IB (ca. 1900 B.C.E.), corresponding to the emergence of the first palaces on the island. Most recent studies on ceramic technology of MM pottery from sites of northern and eastern Crete have revealed that since the introduction of the potter's wheel in MM IB, the wheel-fashioning technique (a combination of hand-building and wheel) was the only forming technique used in Crete until the Late Bronze Age. On the contrary, in southern Crete and especially at the palatial site of Phaistos, recent studies have shown that the wheel-fashioning technique was not the only technique in use because in MM IIA (eighteenth century B.C.E.), at the time of monumentalization of the palatial site, the wheel-throwing technique was first introduced. Through this new forming technique, the rotative kinetic energy (RKE) is used from the beginning of the manufacturing process, thus making the production much faster and standardized. Through the eyes of the experimental archaeologist, we can now say that, adopting the clay in use in Minoan times and a small wheel similar to the ones found in MM II Cretan contexts, it is possible to create enough RKE to produce small wheel-thrown vases, like handle-less conical cups. Using experimental archaeology in combination with macroscopic analysis and requisite contextual information, new results can be provided on the reasons why the wheel-throwing technique was adopted at MM IIA Phaistos. It is argued that its first adoption is connected to the need of mass-produced cups to be used as ration bowls during building activities at the time of monumentalization of the site.

Portable X-Ray Fluorescence Spectrometer Analysis of the Pylos Linear B Tablets

Billy B. Wilemon, Jr., Independent Scholar, Michael L. Galaty, University of Michigan, and Dimitri Nakassis, University of Colorado, Boulder

During the summers of 2015 and 2016, over 1,000 Linear B clay tablets and sealings excavated from the Mycenaean palace at Pylos in Messenia, western Greece, were analyzed at the National Archaeological Museum in Athens. The results of that analysis, which point to significant compositional variation, are presented here.

The 3,000-year old clay tablets are generally economic in nature, and are not found in quantity outside the palace. Stamped clay sealings were used as labels for shipments of material goods. About forty different scribes have been identified.

There are a number of hypotheses that statistical analyses of the chemical data may help us address. The following are proposed:

- PXRF data can be used to identify and group tablets and sealings that were made in a discreet geographical location.

- Comparison of the chemical data and scribal hands leads to the hypothesis that a number of the scribes operated away from the palace and that sealings traveled with materials to the palace.
- Comparison of the chemical data with extant clay samples can help us identify geographical regions in which sealings and tablets were produced.

Answers to these questions can tell us much about the degree of palatial control and distribution of wealth. They also may help clarify the true role of the scribes, how they interacted with one another and managed the flow of material goods, and how economic information made its way into the official record.

This project, supervised by Dimitri Nakassis of The University of Colorado, Boulder, and Michael Galaty of the University of Michigan, is taking place under the auspices of Sharon Stocker and the University of Cincinnati Department of Classical Studies.

Session 2C: Open Session

Fieldwork and Survey in Egypt and the Ancient Near East

Fullery, Tannery or Bathhouse? Indigenous knowledge versus Classical Perceptions at Beth Zur

Laura B. Mazow, East Carolina University, and *Diane Strathy*, Independent Researcher

Excavations undertaken by McCormick Theological Seminary and the American Schools of Oriental Research at Beth-Zur in 1931 and 1957 revealed numerous vats and bath-shaped installations both clustered together and scattered across the site. According to Sellers final report of the first season, local knowledge at the time identified the buildings as a tannery, wool washing or dyeing plant, and artifacts indicative of a large-scale textile industry supported this reconstruction, but the final archaeological reports reject this interpretation in favor of identifying baths as bathing tubs, preferencing parallels with Hellenistic and Roman Egypt and the Aegean and interpreting these features as part of the Hellenization of the Southern Levant.

Beth Zur is one of several sites alternatively identified as either ‘bathhouses’ or ‘fullonica’ (buildings for fulling wool). While the activities associated with these buildings would have similar resource requirements—access to water and water disposal, a furnace, pools, and basins for bathing or fulling—the different functions undertaken in, and users for, these structures should leave a distinctive outline visible archaeologically.

Reexamining the archaeological context, with the support of ethnographic data, furthers the original suggestion of wool processing installations. Although evidence exists for woolen industries in Hellenistic and Roman Palestine, wool washing and fulling installations have not been identified. Using archaeological and textual evidence from the Mediterranean and North Africa, where there is better documented data, we build on the layout of the Beth Zur workshop to construct a footprint for these activities that can be used to identify wool processing in the

archaeological record of Hellenistic and Roman Palestine. Recognizing these bathtubs as better suited for industry than hygiene indicates they reflect a technological innovation rather than a Greek-inspired luxurious lifestyle, a conclusion that suggests we reconsider the impact and influence of Hellenization in the Southern Levant.

Working Among the Dead: A Report from the New Kingdom Necropolis at Gebel el-Silsila

Patricia Coletto, University of Exeter

Located in Upper Egypt and straddling the Nile at its narrowest point, the site of Gebel el-Silsila encompasses approximately 30 square kilometers and retains evidence of human occupation from the Epipaleolithic through Roman times. Though predominantly known for its massive sandstone quarries and the so-called Speos of Horemheb, Gebel el-Silsila also boasts dozens of 'sub-sites': cenotaphs, Nile shrines, stelae, rock art sites, a temple dedicated to the crocodile god Sobek, and the New Kingdom necropolis. It is this latter site, the necropolis, which has been the focus of the Gebel el-Silsila Project since 2016. Working under the auspices of Sweden's Lund University and with permission from Egypt's Ministry of Antiquities, the team has thus far uncovered 73 tombs and burials, including a two chambered shaft tomb containing the mass interment of over 100 individuals! Ongoing excavation and analysis of the archaeological and osteological remains have revealed a wealth of exciting insight into the lives of Silsila's ancient population, specifically the quarry workers. This field report presents the Gebel el-Silsila team's fascinating and most recent discoveries, revelations, and hypotheses from the necropolis.

Brown University Petra Terraces Archaeological Project: 2019 Methods and Results

Daniel Plekhov, Brown University Joukowsky Institute for Archaeology and the Ancient World, Evan I. Levine, Brown University Joukowsky Institute for Archaeology and the Ancient World, Luiza O. G. Silva, University of Chicago, and Max Peers, Brown University Joukowsky Institute for Archaeology and the Ancient World

This paper presents the methods and results of the second field season of the Brown University Petra Terraces Archaeological Project (BUPTAP). The 2019 field season focused primarily on the settlement and ritual site of Ras al-Silaysil and its associated systems of agricultural terraces, where we examined the connections between these agricultural and religious landscapes. Through the integration of survey, excavation, and architectural documentation, we document and analyze the immense typological and chronological variability of agricultural terraces in Petra's northern hinterlands. We investigate this variability through extensive mapping of terrace features, combining satellite and drone-based remote sensing and terrestrial LiDAR to document the morphological and associated geomorphological characteristics of terraces in different wadi systems. We augment these

digital approaches with architectural and landscape drawing, experimenting with different methods to capture the topographic complexity of Petra's landscape. At the scale of individual terraces, we document the stratigraphy of terraced sediments through excavation of test units along terrace risers. We employ optically stimulated luminescence and micromorphological study to date terraced sediments and characterize the sequence and nature of their accumulation. Archaeobotanical study of phytoliths also allows us to investigate the vegetation present within wadi systems through time, providing some clues about the kinds of crops grown there over the centuries. Through the integration of these various methods, we shed light on the long-term and dynamic history of land-use at Petra. The persisting use of agricultural terraces underscores their multifaceted roles in semiarid environments, serving functions relating to both soil retention and irrigation and allowing for the cultivation of a wide variety of crops.

The Kubba Coastal Survey, Lebanon: Archaeology, Heritage and Landscapes of Transformation

Jennie N. Bradbury, Bryn Mawr College

Until the past decade, the northern coastal strip of Lebanon had largely escaped the impact of mass urban sprawl and development affecting many other areas of the Levant. Since the late 2000s, this situation has rapidly changed and the area has been transformed by industrial and infrastructural projects. Over the past four years, through a combination of archaeological fieldwork and remote sensing, the Kubba Coastal survey has built up a detailed understanding of activity in this area, from the Paleolithic until the mid-twentieth century C.E. From extensive lithic scatters to hilltop settlements, our understanding of the utilization of this area, and its links to both the coast and further inland, as well as its wider role within the Levant have been elucidated.

This paper presents the major findings of four years of survey. I compare the *longue durée* settlement patterns seen in this area with those from the rest of Lebanon and interrogate some of the significant peaks and troughs in occupation, as well as potential gaps in evidence that need to be further explored. The paper highlights the benefits of bringing together an interdisciplinary team to combine traditional archaeological survey, remote sensing, underwater archaeology, geomorphology, history, and cultural heritage assessments in order to successfully tackle this diachronic approach. In addition, I explore the challenges and tensions of working in such a rapidly developing landscape and consider how we, as research archaeologists, can record and analyze different types of disturbances and threats to the archaeological record as part of our everyday work.

Session 2D: Open Session

Current Research in Athens and Corinth

Kneel Before the Grindstone: Cult Practice in the Sanctuary of Demeter and Kore at Acrocorinth

Mary Danisi, Cornell University

Analyses of the sanctuary of Demeter and Kore at Acrocorinth can substantially inform contemporary studies on the archaeology of cult. The site's well-documented topography and abundant assemblages of terracotta offerings warrant reconstructions of the ritual practices it once facilitated. From its monumental appearance in the sixth century B.C.E. until its restructuring following Roman conquest, the sanctuary contained an extensive dining complex. Situated in a portion of the precinct the American School has termed, "the Lower Terrace," this complex consisted of a series of closely associated, yet distinct, dining units, the interiors of each having displayed varying architectural features and spatial arrangements throughout the Greek period. These units enjoyed multiple phases of renovation, expansion, and compartmentalization during Classical and Hellenistic times, suggesting that they accommodated activities that were critical to sanctuary proceedings. But rather than assuming they were used simply for dining purposes, as the excavators originally construed, we might consider the following additional function, which recognizes the rooms' multifunctionality and capacity for alternative affordances. A new interpretation of the dining units reassesses their formal idiosyncrasies, together with analyses of their votive *likna* and organic remains, in order to suggest that a type of cult practice unprecedented elsewhere in Demeter cult occurred in the Lower Terrace. The peculiarities of the dining rooms can be explained as amenities designed for the production of grain goods dedicated to Demeter and consumed in ceremonial feasting. This reinterpretation complicates the contention that ritual activity was conducted exclusively within the "Middle Terrace" of the site. Additionally, it proposes that the dining complex provided the setting for a local, Corinthian variant of Demeter cult.

The Bouleuterion of the Areopagus in the City Eleusinion

Gerald V. Lalonde, Grinnell College

Scholars have long suggested that the Athenian homicide court of the Boule of the Areopagus met on the summit of the Hill of Ares or the terrace immediately below its northeast face, but, despite thorough investigation of the area, there is to date no probative in situ archaeological evidence of such a meeting place. Proceeding from the premise that the *Areios pagos* included topographically its extensive slopes, a wider survey of the published archaeology shows a unique concentration of epigraphic evidence of the Areopagite Council in an area extending roughly from the hill's northeast summit and the northwest face of the Acropolis to the wide region of the Stoa of Attalos and the Roman Agora. Of twenty-six relevant inscriptions found in this area, two give very specific evidence of the Bouleuterion of the Areopagus: (1) A stele with the Law of Eukrates (Agora I 6524; IG II3 1,

320) of 337/6 B.C.E., restricting the activity of the Areopagites in the event of tyranny, is likely the copy that was set up at the entrance to their Bouleuterion; (2) The palimpsest *horoi* of the Boule of the Areopagus (Hesp. 2013, 437–457; Agora I 5054a–b) from the fifth and fourth centuries B.C.E. were inscribed on a wall block at an entrance to that Bouleuterion. Literary *testimonia* (Antiph. 5.10–11; Ath. Pol. 57.4; Poll. 8.117–118) show that the estimated 150–200 Areopagite *dikasts*, in order to avoid pollution in trials of homicide, needed a large hypaethral court that could be entered directly from open public space. This necessity and the nearby finding places of the cogent inscriptions support a new thesis, that the perennial Bouleuterion and homicide court of the Areopagus were in the Archaic Peribolos of the City Eleusinion, a large level site that was kept open to the sky throughout its ancient history. In correlation with this thesis, published literary, epigraphical, and topographical evidence is adduced to support a conclusion that certain properties which Pausanias noted (1.28.5–9) in conjunction with the court of the Areopagus, namely, the unworked stones of Hubris and Anaideia, the shrine of the Semnai, and images of Plouton, Hermes, and Ge, were also located in the precinct where Demeter and Kore, as related chthonians, were established in Athens.

Excavations in the Athenian Agora

John McK. Camp II, American School of Classical Studies at Athens, Randolph-Macon College

This paper will summarize excavations carried out in the Athenian Agora over the past five years. The material recovered spans from Mycenaean to the Byzantine period along the northern side of the agora square, in the vicinity of the Painted Stoa. In addition to reviewing new information about the stoa itself, this paper presents new evidence concerning the probable location of the Leokoreion, one of the best-known landmarks of ancient Athens.

Kekrops or Erechtheus? Rereading the West Pediment of the Parthenon

Jenifer Neils, American School of Classical Studies at Athens

Once the Figures B and C on the north end of the west pediment of the Parthenon were correctly interpreted as an Attic king and his daughter, rather than Hadrian with his wife Sabina, most scholars have adhered to their identification as Kekrops and one of his daughters. However, this reading does not take into account the torso (Acropolis Museum 879) located under the horses of Athena. This male torso preserves a large round break at the level of the groin which can only be the beginning of a snake-like appendage. While some have suggested that this figure is a Triton like that under the horses of Poseidon, a more convincing identification is Kekrops, who is the only adult Attic king depicted with a snake-like lower body, as seen on the Pella Hydria. If this identification is correct, then Figure B must be the earthborn Erechtheus whose attribute is a snake. This serves to explain the bared left breast of his daughter (Figure C) who willingly sacrificed herself before the battle with Eleusis. It may also clarify the identity of this particular pair in a reduced Roman copy found near the greater Propylaea at Eleusis.

Polis Sites and Sightlines: Digitally Reconstructing Hellenistic Athenian Monuments

Petra M. Creamer, University of Pennsylvania, and *Gregory Callaghan*, University of Pennsylvania

Athens' golden age may have ended with the fifth century, but its monumental development certainly did not. In particular, the royal dynasties of the Hellenistic era (323-100 B.C.E.) spent vast sums to erect new buildings and monuments around Athens, in order to tap into the city's cultural legacy. These individual buildings, such as the Stoa of Attalos, have received considerable attention. Less systematic study has gone into the ways in which these alterations to Athens' built environment interacted with and changed the experience of its established landscape. The Polis Sites and Sightlines project aims to create a digital framework to understand how Athens' various monuments and buildings interacted with one another, how the populace experienced the city's civic and sacred heart, and how new additions such as Hellenistic or Roman dedications would have reshaped that experience.

This paper presents the results of the first season of the Polis Sites & Sightlines project, with an emphasis on the digital methodologies used both in and out of the field. A combination of digital 3D modelling, photogrammetry, and GIS are used to present a reconstruction of the built environment of the Athenian agora and acropolis. As a demonstration of the project's potential uses, the paper offers a focused analysis of the impact of Attalid dedications from the second century B.C.E. on that environment. Ultimately, however, the project is intended to be open-source and to allow the field to conduct detailed sightline analysis of the city's public space from multiple time periods, and the project's website will allow for crowd-sourced digital models of the buildings to be uploaded and plugged into the base model, while allowing users to filter these buildings in or out depending on the period of interest.

Session 2E: Open Session

The Materiality of Roman Imperialism

Mail Armor in the Middle Republic: Adoption, Prevalence, and Impact

Bret Devereaux, University of North Carolina at Chapel Hill

By the first century B.C.E., mail body armor in the form of the *lorica hamata* had largely replaced the preexisting armor traditions of Italy, becoming the most common and visible armor of the legions, despite being adopted by the Romans from Gaul. Although mail spread rapidly throughout the Mediterranean, its study has been neglected, especially when compared to the voluminous work on the later imperial *lorica segmentata*. In this paper, I assess the date and impact of the Roman adoption of mail in the third and second centuries B.C.E.

I examine the evidence for the introduction of mail in the Roman army and the related question of the prevalence of mail compared to native Italian armor types. Mail is rarely preserved in the archaeological record, so this examination relies on

a mix of archaeological, representational, and literary evidence to determine the timing of the adoption of mail and steady rise in its prevalence. While the expense of mail may have inhibited its adoption by others, the Italian armor tradition already favored an unusually high amount of metal body protection, suggesting that Rome may have been uniquely positioned to take advantage of this expensive new military technology.

I then consider the evidence for battlefield impact during the second century B.C.E. By comparing the weapons available with the defensive properties of mail armor, I determine which weapons would have had a high probability of defeating mail and which would have been rendered less effective. Notably, this advantage is reflected in Livy's reports (Livy, 37.44.2; 44.42.8) that Roman armies facing Hellenistic opponents suffered few fatalities but many soldiers wounded. Based on this analysis, I conclude that the preexisting Italian tradition of comparatively heavy armor enabled Rome's rapid adoption and wide use of mail, which in turn provided a significant advantage to Roman armies.

From Debris Field to Battle Map: Artifact Dispersal Study in the Aegates Battle Zone

William M. Murray, University of South Florida, *Adriana Fresina*, Soprintendente del Mare, Regione Siciliana, *Peter B. Campbell*, The British School at Rome, *Francesca Oliveri*, Soprintendenza del Mare, Regione Siciliana, *Mat Polakowski*, University of Southampton, and *George Robb*, RPM Nautical Foundation

Over the past fourteen years, RPM Nautical Foundation, working with the Sicilian Soprintendenza del Mare and Assessorato dei Beni Culturali e dell'Identità Siciliana, has mapped the site of a Punic War naval battle fought off the Aegates Islands (241 B.C.E.). We suspect that our detailed map of battle debris offers a unique opportunity to extrapolate the positions of warships at the moment of sinking. In order to make sense of the spatial relationships within the debris field, the authors conducted a drop experiment over an empty region of the battle zone during the summer of 2019. The objective of the experiment was to see how currents in the battle zone might have affected the distribution of recorded artifacts like amphoras and helmets. For the purposes of our experiment, we employed replicas of artifacts found at the site. Amphoras were filled with different contents—olive oil, fresh water/wine, and grain—and were sealed with leather caps secured by twine. Each artifact was fitted with an acoustical beacon so that its descent through the 80 meter-deep water column could be logged. Results indicated that an amphora's contents definitely affected its descent to the bottom. One amphora filled with grain to its neck floated for 900 m before its retrieval, just before sinking. It is hoped that further analysis with GIS will allow us to relate our results more precisely to the mapped artifact scatter.

Mevania and the Ancient Umbrian Valley: Landscape and Sacred Spaces between the Roman Conquest and Augustus

Elisa Laschi, Rheinische Friedrich-Wilhelms-Universität Bonn

Every human landscape with its cities, its routes, and architectural monuments constitute a structured reality in which sacred and cult places play a significant role in the development of collective identity. The Umbrians are one of the most influential populations of pre-Roman Italy, structured with several different centers scattered in a widespread area from the west side of Tiber to the east of the peninsula. The archeological evidence shows that in the time of Augustus, three centuries after the conquest, the major reorganization of the Umbrian landscape takes place, probably during the establishment of Regio VI. At the same time, the city of Mevania, which rises precisely in the center of the Umbrian Valley, loses its crucial role as a capital of Umbrian "league" in favor of Hispellum. This change-over is nowadays evident no more only in literary sources: a reinterpretation of archeological data displays a new system noticeable in the reorganization of cult places that remodeling the whole land. A new sacred way links Mevania and Hispellum, along which architectural evidence shows a complex religious system (e.g., the Temple of Parco Silvestri, the Nymphaeum of via Properzio, the Aisillum, and the Sanctuary of Villa Fidelia in Hispellum). Thanks to the combination of archaeological remains with the historical record, it is possible to offer a complete glimpse at the Augustan reorganization of Umbrian land and its political valence. Recent studies have indeed stressed as the image of the Umbrian "league" could be shaped by Augustus with the aim to find the unity wiped out during the civil wars. In this respect, this paper would be a portrait of the dynamics in Umbrian Valley between the Roman conquest and the first imperial time, with particular reference of archaeological and historical data from Mevania and its sacred spaces.

Minting Tarpeia

Jaclyn Neel, Temple University

In this paper, I reanalyze the coinage depicting Tarpeia (*RRC* 344/2b, *RIC* P Augustus 299). This coinage has previously been understood in one of two ways: scholars either believe that the iconography depicts Tarpeia as a deity (relying on the "astral symbolism" of star and crescent; see particularly Ercolani Cocchi 2004 and Mazzei 2005), or they argue that the images illustrate Tarpeia's death by crushing in a manner similar to Livy's description in *AUC* 1.11 (most recently, Welch 2015). Recent scholarship on the relationship of text and iconography, however, has found that iconography does not simply depict scenes known from literature; rather, it has its own aims and means of communication (e.g., Small 2003).

Following this argument, my analysis focuses on the numismatic, rather than textual, models for these Tarpeia coins. In particular, I focus on the composition of *RRC* 344/2b, which finds parallels in other Republican coinage depicting military victory. This military iconography differs substantially from the literary tradition on Tarpeia; it has parallels, however, in other literary works on mythological women. My concluding argument suggests that Vergil has been influenced by the coinage in describing the companions of Camilla in *Aeneid* 11.655–664. A reader

familiar with the iconography would be able to predict Camilla's demise, while a viewer familiar with the *Aeneid* would understand the coins in two distinct ways.

Municipal Public Spending and Italian Urbanization in the Late Republic

Drew A. Davis, University of Toronto

The wave of urbanization that swept through Italy in the second and first centuries B.C.E. is viewed as a key aspect of economic development in the peninsula. Scholars routinely view this significant investment in urban infrastructure and public amenities as financed largely by the private fortunes of Roman and Italian elites who, newly enriched by Rome's Mediterranean expansion, sought to increase their sociopolitical power at home largely in the form of monumental civic building. However, this focus on elite euergetism fails to account properly for the considerable evidence of municipal public spending used to finance these projects. Indeed, the financial situation of the municipalities, colonies, and other communities outside of Rome is still poorly understood and often glossed over in discussions concerning the impact, economic and otherwise, that Rome's Mediterranean conquest had on Italy and her peoples. This paper seeks to correct this oversight by investigating how prevalent notices of public financing are in the substantial corpus of inscriptions pertaining to public building from communities across Italy. Through this investigation, I show that public money was used just as much, if not more so, than private wealth to fund Italian urbanization in the late republic. In so doing, I challenge the idea that elite private wealth was largely responsible for late republican urbanization. This study of Italian public spending, then, not only questions the scholarly focus on Roman wealth or the private fortunes of elites in the history of the late republic but also proposes that Italian communities autonomously controlled a much larger share of Italy's overall wealth than previously assumed, offering further insight into the process of Italian municipalization and urbanization.

Session 2F: Open Session Looking Again at Roman Funerary Monuments

A New Look at Old Evidence for the Tomb of the Haterii

Jennifer Trimble, Stanford University

The Tomb of the Haterii in Rome is a major monument for Roman art and social history, illuminating artistic production, commercial life, and funerary ritual in the imperial period. Additional context has come from the suggestion made by several scholars, especially Filippo Coarelli, that the tomb's founder was identical with the Quintus Haterius Tychicus identified elsewhere as a *redemptor*, or contractor (CIL VI.607). Apparently confirming this suggestion is the construction crane depicted in one of the tomb's sculptural reliefs. As a result, the tomb's founder is widely described in the scholarship as a building contractor, and the tomb and its artworks are interpreted accordingly.

In this paper, I reexamine this link to Quintus Haterius Tychicus to show that the evidence points in a different direction. The inscription mentioning Tychicus does not survive; its earliest and most detailed reproduction is in the sixteenth-century Codex Pighianus. What has not been considered is that the inscription included images of a sculptor's pick and a headless sculpted torso. These images suggest that Haterius was a *redemptor* not for buildings but for sculpture.

This changes our understanding of the finds from Tomb of the Haterii. I argue that the famous crane relief refers not to building construction but to the use of cranes for mounting heavy sculpture. The monuments relief does not celebrate Haterius's role in the construction of the depicted buildings but his provision of their sculpture; this explains the puzzling prominence and large size of the sculptures depicted on those buildings. Another curious feature of the Tomb of the Haterii is its extensive reuse of decorative marbles; this becomes more understandable if its founder owned or controlled a sculptural workshop. These arguments come with caveats, but, overall, this reexamination can shed new light on sculptural production and commercial life at Rome.

The Specter of Nemrut Dağı and the Philopappos Monument in its Local Athenian Context

Gavin P. Blasdel, University of Pennsylvania

Prominently located atop the Mouseion Hill in Athens, the second century C.E. Philopappos Monument boldly celebrates the eminence of its eponymous honoree, a curious mix of Hellenistic king, Roman consul, and Athenian magistrate. Despite this complexity, most interpretations follow Santangelo (1947), Sullivan (1977), and especially Kleiner (1983) in viewing the probable funerary monument in light of Philopappos's status as a dynast of Commagene. These scholars argue or assume that many aspects of the monument consciously imitate Antiochus I's "temple-tomb" at Nemrut Dağı, and other such Commagenian complexes called *hierothesia*, in order to express Philopappos's alleged claims to divinity. Although recently Facella (2006) and Kropp (2013) have doubted that the *hierothesia* were inspirations for Philopappos, both have treated the problem only in passing. As a result, the shadow of Nemrut Dağı continues to loom large in scholarship.

In this paper, I argue that maximalist interpretations that stress the importance of Nemrut Dağı are unconvincing and that the local social, cultural, and political context of Roman Athens and of the Greek East more broadly offer a much better paradigm for the monument's interpretation. Through an analysis of the modes of representation deployed by the kings of Commagene and on the Philopappos Monument, I demonstrate that the often cited bona fide "Commagenian" elements of the monument—such as its location, the costumes and seated posture of the statuary, and the presence of Heracles—are misconceptions. Instead, these features can readily be explained as characteristic of late Hellenistic royal iconography or of civic elite display in the Greek East (cf. Smith 1998). By drawing upon epigraphic, iconographic, and literary evidence, I show that the monument was designed not just to project Philopappos's exceptional pedigree and stature, but above all to showcase his role as a citizen, civic official, and benefactor of Athens.

An Elite Tomb at Ancient Corinth?

Aileen Ajoatian, The University of Mississippi

Roman identity in ancient Corinth, *Colonia Laus Julia Corinthiensis*, was established by monumental public architectural installations framing the Forum. Sculptural expressions of *Romanitas* included a unique statue base representing the Seven Hills of Rome and a rare marble group with Lupa nursing Romulus and Remus, plus images of Roma herself. Another type of Roman monument at Corinth, common in Italy and elsewhere in the empire, but rare in Achaia, adds a layer to these manifestations of Roman presence. A large marble panel (A-1974-29) adorned with two life-sized fasces in relief was discovered in 1974 built into the terrace at a farmer's field, about half a kilometer northeast of the Asklepeion at Corinth. The finished top surface was inscribed with Greek letters, probably mason's marks; the bottom preserves cuttings for a clamp and dowel. Another fragment (S 3622) from a big marble block, found in a marble pile southwest of the West Shops in the Forum, preserves one fascis, complete with axe and protome in the form of a woman's head. From disparate parts of the site, these non-joining pieces probably belong to the same monumental work because of scale, style, and details. Two types of Roman monuments, public and private, depicted fasces: imperial historical reliefs and aristocratic tombs. In the historical reliefs, imperial personalities and their entourages, including lictors bearing fasces, were combined with mythological figures and personifications. Roman funerary monuments also depicted fasces, sometimes carried by officials, or on their own, symbolizing power and status. In Athens, the unusual tomb for Commogene king Philopappos (114–116 C.E.) presented him as ruler, consul, and divinity. Philopappos in his chariot processes, lead and originally followed by fasces-bearing officials. A similar monumental tomb may once have stood at ancient Corinth, commemorating perhaps an aristocratic Greek in Roman style.

Fig Leaves, Photogrammetry, and a Third-Century Masterpiece Rediscovered

Robert Cohon, Kansas City Art Institute, and R. Bruce North, MSCE

The line between forged and genuine is sometimes blurry. On a large marble sarcophagus purchased in 1926 for Hearst Castle, lions attack stags, and in the middle two *Erotes* hold portraits in a shell. Vermeule (1962) and Brinkerhoff (1978) deemed it ancient; in subsequent private communications scholars condemned it. Stroszeck codified this opinion in the canonical *Die antiken Sarkophagreliefs* (1998). The bizarre portrait busts and fig leaves covering the *Erotes'* genitals were among the key problems. Each of these scholars is correct, but wrong: the sarcophagus is ancient but was partially re-carved in the early twentieth century.

In studying the sarcophagus, we employed traditional art historical analyses but added the tool of photogrammetry for hard-to-obtain precise measurements and detailed cross-sections. An ancient repair, traces of now-missing iron clamps, and the character of the chisel work authenticate the sarcophagus's tub-shaped body and reliefs on its narrow sides. Cross-sections confirm, however, that a restorer re-carved the damaged female portrait. He created fig leaves from the genitals themselves. As contemporaneous forgeries show, completeness and prudery sell.

Discrepancies in style between the left and right of the sarcophagus reflect not the inconsistencies typical of a forgery but Roman time-saving efficiency: the divided work of an aspiring sculptor and master. The photogrammetric model establishes how templates were partially used on both narrow sides, an ancient technique.

Style and iconography date the sarcophagus to about 260–280 C.E. Unusual features—e.g., the twist of the lions' heads and position of their raised paws—indicate not a forger's mistakes but an artist's creativity. The sophisticated design, harmonious proportions, and time-consuming work to undercut and carve such a large, deep relief are atypical of contemporaneous forgeries. With the help of photogrammetry, a major Roman sarcophagus has been rediscovered.

Session 2G: Open Session Greek and Cypriot Architecture

Beyond Vernacular and Elite: Dependencies and Gradations of Social Status in Prepalatial Minoan Architecture

Carol R. Hershenson, University of Cincinnati

Distinctions between elite and vernacular houses have been recognized in previous scholarship on Prepalatial Minoan architecture as early as EM II. In this paper, I discuss architectural evidence for further social subdivisions, both below the status of the occupants of the main rooms in vernacular houses and among the occupants of elite ones.

The first category of possible sub-vernacular dwellings consist of suite 76–77 within the vernacular South-Central house at Fournou Korifi Myrtos and rooms 11 and 3 at Kephala Petras. Each has an assemblage similar to those of the larger architectural blocks to which they are attached, but with less than half the quantity of those goods compared to the neighboring household units; both, moreover, are doorless suites that lack visible means of access to public space without passing over or through the larger household units. These appear to be dependent impoverished households within vernacular houses.

A second category of possible sub-vernacular dwelling, *maisons-ateliers*, may be represented by the northeastern group of rooms of the West house at Vasiliki. This identification is suggested by parallels between their plans and relationships to the other rooms in the West house and those of the Protopalatial *maisons-ateliers* in Quartier Mu at Malia to elite houses A and B. The Protopalatial examples were identified on the basis of a wealth of other data, including fixtures and moveable contents, which is unavailable at Vasiliki.

Finally, among elite Prepalatial houses there may be some social differentiation between those that include a broad-room-and-corridor suite, which may have some relationship to later Lustral Basins, and those that did not. Recognition of these social differences encoded in domestic architecture in addition to the broader categories of vernacular and elite houses adds nuance to complexity of Prepalatial society.

Palatial Stone Masonry and Transport: A New Geochemical Study of Minoan Ashlar and Quarries in East Crete

Jonathan Flood, Frostburg State University, *Scott Pike*, Willamette University, *Jeffrey S. Soles*, University of North Carolina at Greensboro, and *Douglas Faulmann*, Institute for Aegean Prehistory in East Crete

Production and transport of cut-stone blocks were *sine qua non* in the development and design of Minoan “Palaces” and other defining elite architectural forms of Late Bronze Age Crete. Production of large rectilinear blocks from nearby geologic stock facilitated construction of stout upper-stories, sheer façades, pillar-supported open basement spaces, doweled wood-rock interfaces, and precisely angled interior and exterior corners. These architectural developments conveyed a sharp break from the happenstance geometry of natural, unmodified building materials of earlier times. Viewed monolithically, Minoan society was first in the Aegean to develop systematic quarrying technology and stone transport; yet at finer scales of temporal and geographic analysis, we reveal a spatial heterogeneity of geologic haves and have-nots that may explain the lag-time in the arrival of architectural monumentality at Minoan centers east of Mirabello Bay. The general eastward decay in abundance of suitable stone stock for hewed block production—namely poros limestone and gypsum—resulted in a suite of adaptive engineering solutions and the creation of intersite material exchange networks in east Crete. Lacking accessible gypsum and poros limestone, Minoan builders in the east exploited scattered deposits of biocalcarenite beachrock for ashlar fabrication.

This geochemical and geophysical investigation examines biocalcarenites from all known Minoan quarries and associated sites including and east of the palace and quarry of Malia (45 lithic specimens were analyzed). The study reveals the Late Bronze Age web of ashlar production and exchange in East Crete, and using XRF spectroscopy and petrography undertaken at the Malcolm H. Wiener Lab of Archaeological Science, has pinpointed the previously unknown source for ashlar blocks used in the construction of the palace of Gournia. The paper then concludes with a GIS-driven assessment of the distribution of ashlar blocks at Neopalatial Mochlos that lends insight into both social and engineering functions of this labor-intensive building material.

Cyclopean Walls on Acrocorinth: Mycenaean Presence or Not?

Ioulia Tzonou, American School of Classical Studies at Athens

Imposing fortification walls enclosed the citadel of Corinth, Acrocorinth, throughout its long history. Was the hilltop fortified in Mycenaean times? Cyclopean stretches of wall were located already in the nineteenth century and Andreas Skias argued for their Mycenaean date. This early date was rejected in the twentieth century. Rhys Carpenter asserted that the remains could not be Mycenaean since Corinth did not exist at the time. This assertion does not hold. A *tholos* tomb and an extensive Late Helladic settlement were excavated in the plain to the north of Corinth during the last decade.

Under this evidence, reexamination of the Cyclopean remains argues for their Mycenaean date. Comparison to Mycenae, Tiryns, the Pelargikon in Athens, and

Larissa in Argos, shows that the wall construction follows criteria set by the Mycenaean. The Cyclopean parts are clearly distinguished from stretches of polygonal masonry, which were constructed during the Archaic period. Cyclopean remains are not scattered throughout the extent of the later walls, but concentrate in the eastern, highest and most precipitous half of the top of the mountain. A 3D reconstruction incorporating aerial images of the Cyclopean parts helps us visualize how the wall might have appeared in Late Helladic times.

Cyclopean walls were rare but existed in the Corinthia. On the road to the Saronic Gulf, a strong wall protected Perdikaria. A fortification wall most probably surrounded Korakou, Corinth's harbor in the Late Bronze Age. Mycenaean inhabited the landscape in Corinth from Acrocorinth to a busy harbor on the Corinthian Gulf. Sisyphus's task of endlessly rolling his boulder uphill might be seen as a reflection of the labor required to fortify the great hilltop during the heroic past of the prosperous archaic city.

The Maa-Palaeokastro Architectural Documentation Project

Kyle A. Jazwa, Duke University

This paper presents the results of a fieldwork project that systematically documented and analyzed the standing architecture from the Late Cypriot IIC-III A site of Maa-Palaeokastro. In 2018, our team identified and recorded more than 200 distinct construction techniques that were employed for each building. These data were subsequently analyzed and evaluated for statistical correspondence among structures to help understand the typical construction methods, strategies for settlement planning, and organization/oversight of labor for the initial founding of the *ex novo* settlement and the subsequent rebuildings.

The analysis confirmed many of the excavator's (Vassos Karageorghis) general observations regarding the consistency of construction for the initial settlement event (Floor II) and the rather haphazard reconstruction following a catastrophic fire (Floor I); but, considerably more nuance was also gained, especially regarding the organization of labor during the initial settlement. Although the broad coherence to construction techniques suggests clear planning, oversight, and organization (even during the crisis in the eastern Mediterranean), individual "teams" of builders were identified for each major construction project (Buildings II, III, IV, and Courtyard A). This is evident from minor differences in construction between structures, such as the more consistent use of "anchor stones" for the exterior walls of Building II. Later renovations and constructions, however, do not maintain such a strict observance to those original construction methods, indicating less organized and more ad hoc constructions over the long-term.

As a final component to the project, the construction data from Maa were compared with similar data sets from mainland Greece to provide a new perspective to the much-debated question concerning identity of the settlers. An overwhelming lack of correspondence for the construction techniques between Maa and mainland Greece strongly suggests that Maa was not settled by Mycenaean as was proposed originally.

At the Origins of Greek Monumental Construction: Concept, Fabrication, and Meaning of Corinthian Ashlar

Alessandro Pierattini, University of Notre Dame

Monumental Greek stone construction originates with the concept of building with standard cuboid blocks. As obvious as this concept may seem to modern builders, its particular implementation in Corinthian temple construction in the first half of the seventh century B.C.E. was a novelty in Greece and throughout the ancient Mediterranean and Near East. Without direct evidence of antecedents, scholars have hypothesized a connection with the centuries-old Corinthian craft tradition of stone sarcophagi. Yet to what extent—technical, conceptual, or symbolic—a crossover may have occurred remains an open question.

This paper addresses the problem with three different methods. First, it compares the production processes of the blocks from the two early temples at Corinth and Isthmia with those of previous and contemporary examples of Greek ashlar, asking to what extent the Corinthian peculiarities may derive from methods inherited from sarcophagus manufacture. Second, in comparing the chronologies of sarcophagi and architectural block production, it adopts an energetics approach to evaluate how these two industries may have boosted each other by increasing the number of craftsmen. Third, it explores questions of agency in relation to the concept and potential meaning of ashlar construction in Corinthian society.

It concludes that: (1) conditional to the production of the Corinthian blocks was the quarry technique by separation trenches, already used in sarcophagus fabrication but otherwise unattested in Greece through the EIA; (2) while the documented rise in sarcophagus production between the eighth and seventh centuries was quantitatively insufficient to boost craftsmanship, the effects of temple construction favored the subsequent rise in the number of sarcophagi; (3) the concept of using blocks rather than traditional double-skin masonry likely relates to craftsman-aristocratic patron relationships both practically and ideologically.

Session 2H: Workshop

Provenance Research in Museum Collections: Display, Education, and Publication

Sponsored by the Museums and Exhibitions Committee

Moderators: *Judith Barr*, J. Paul Getty Museum, and *Nicole Budrovich*, J. Paul Getty Museum

Workshop Overview Statement

As museum-related panels at past annual meetings have illustrated, provenance research remains a vital concern and ongoing interest for many museum professionals and academics involved with collections of antiquities from across the classical world. Since the previous workshops and last year's roundtable on provenance have addressed the methodological frameworks involved in conducting provenance research, we propose this workshop for Washington, D.C., in 2020 in order to further explore the next stages for developing this kind of research.

As more institutions have begun to invest in and to support opportunities for provenance research, new challenges have arisen: Once research has begun, how will this provenance information be displayed? Will it be published? How can provenance research and object histories be translated for use in diverse didactic settings and learning environments? What are the models for integrating the provenance of antiquities into publications within different media? Through a series of short case studies, participants will explore complex issues around the display and communication of provenance within collections of classical antiquities. These presentations will consider models for provenance outreach and display; how provenance and collecting histories can be taught at various levels; the publication of provenance through different avenues; and how exhibitions can prompt and promote archival reassessments of an object's history. The presenters will draw on a wide range of institutional and academic perspectives, which we hope will lead to fruitful connections and discussion throughout the panel. The initial section of presentations will be followed by a breakout session with moderated small groups in order to allow further conversations about the particular issues and challenges in addressing provenance research. Given this, we are requesting a two hour session. We hope that this portion of the workshop will allow colleagues from across the museum and academic communities to better understand effective and meaningful models for provenance outreach and display for antiquities collections.

Panelists: *Jacquelyn Clements*, AIA Los Angeles County Society, *Amelia Dowler*, British Museum, *Lynley McAlpine*, San Antonio Museum of Art, *Sara Cole*, J. Paul Getty Museum, *Katharine Raff*, Art Institute of Chicago, *Ann Brownlee*, Penn Museum, *Rebecca Levitan*, University of California, Berkeley, *Lisa Pieraccini*, University of California, Berkeley, and *Eric Beckman*, Indiana University, Bloomington

Session 2I: Open Session

Roman Waterworks: Aqueducts, Baths, and Pools

The Aqua Traiana before Trajan

Rabun Taylor, University of Texas at Austin, *Edward O'Neill*, Independent Scholar, *Katherine Rinne*, California College of the Arts, *Giovanni Isidori*, Independent Scholar, *R. Benjamin Gorham*, Case Western Reserve University, and *Timothy Beach*, University of Texas at Austin

The 2019 Aqua Traiana Project marks a decade of archaeological study of ancient Rome's famous western aqueduct, which originated in the hills and valleys surrounding Lake Bracciano some 40 km northwest of the city. Our main objectives were fourfold: (1) to document significant sites in the Aqua Traiana source network photogrammetrically; (2) to continue our environmental analysis of the regional hydrology; (3) to conduct a site survey of a critical node in the aqueduct's source network, the long springhouse at Vicarello, discovered in 2017; and (4) to analyze archival records referring to the Roman antiquities at Vicarello—especially payment ledgers for the construction of the Acqua Paola, the seventeenth-century

papal aqueduct that reappropriated many of the ancient sources. Our new research, combined with a reappraisal of our past fieldwork, urges a reconsideration of the Aqua Traiana's chronology.

The aqueduct probably originated under Domitian. This emperor built and owned the Roman imperial villa at Vicarello; he also renovated the adjacent thermal spa known as *Aquae Apollinares*, expanding the baths and adorning them with a grand nymphaeum. The expansion drew upon springs in a nearby ravine, including the long springhouse that is the focus of our current research. Only after this phase was the aqueduct reimagined and augmented to suit the truly urban scale of the mature Aqua Traiana. The later phases of the project required a clean sweep of smaller or more remote springs in the region; in one branch nearby, we find evidence of a dramatic bridge redesign to accommodate a greater volume of water. Payment documents and land records indicate that our springhouse acquired the toponym *Fonte Venere* (Spring of Venus) in the medieval or early modern era, a name that we trace to a recently identified shrine dedicated to a female deity on the lakefront nearby.

Water to Aelia Capitolina: New Excavations at the Pools of Solomon

Mark Letteney, Princeton University

An archaeological assessment of the Lower Pool of the Pools of Solomon south of Bethlehem, Palestine, was carried out by the Albright Institute of Archaeological Research (Jerusalem) under the co-direction of the author in 2018 and 2019. This preliminary assessment was conducted as part of a larger project to repair, conserve, and develop the site by the Solomon's Pools Preservation and Development Center, funded by the United States Department of State Ambassador Fund for Cultural Preservation, and with the permission of the Palestinian Authority's Ministry of Tourism and Antiquities. The purpose of the survey was to assess the state of the Lower Pool through visual inspection, excavation, and three-dimensional photogrammetric modeling in order to determine the course of action for conservation and redevelopment works.

The three "Pools of Solomon" stand at the heart of an elaborate water collection and distribution system which provided water to Jerusalem at various points over their 2000 year history. Jerusalem's aqueduct systems have been the subject of significant archaeological investigation, but the pools have been largely ignored. However, this has not deterred scholars from suggesting dates for the construction of the pools and surmising the role of the pools within the broader system. This paper summarizes new data from the current project and suggests a date of construction corresponding to Hadrian's refounding of Jerusalem as Aelia Capitolina in the early second century. The paper also provides a new framework for understanding the history of the pools and, consequently, the water supply to Jerusalem over the ages.

Bath Remodel: The Stabian Baths at Pompeii

Ismini A. Miliaresis, University of Virginia

Roman baths were a place of innovation and ingenuity, where new technology and architectural elements were invented and implemented. The Stabian Baths at Pompeii are one of the earliest baths to have been discovered thus far. They were transformed from a rudimentary space heated by braziers to an elaborate complex with subfloor and intramural heating systems that influenced other structures in Pompeii and throughout the Roman world. This paper presents annual fuel consumption values for the Stabian Baths, and compares them to other bath complexes in an attempt to understand how heating systems were improved over time.

Computing fuel quantities reveals that later facilities were more efficient than the Stabian Baths, despite being larger and having more expansive windows. By comparing the heating systems and the structure of this bath to others in Pompeii and Ostia, it is possible to detect physical alterations that contributed to a more efficient bathing complex. For example, I previously have demonstrated that windows contribute a great deal of heat energy to warming spaces by comparing fuel consumption values in the Forum Baths at Ostia using heat transfer formulas. Both the Central Baths and the Suburban Baths of Pompeii contain large windows in their heated rooms, suggesting that Roman engineers began to appreciate the benefits of solar power.

In addition, the Stabian Baths contained both *tubuli* and *tegulae mammatae*, which were used to heat the walls of the baths. This arrangement is very unusual, and it is unlikely that these devices could have worked symbiotically. Rather, one device was probably being replaced by the other in the post-62 C.E. earthquake reconstructions that the bath was still undergoing at the time of the eruption. The efficiency of each of these wall devices will be presented, and this discrepancy will be addressed.

And in Some Balnea Is There More Delight: Report from the 2017–2019 Seasons at the Bathhouse of Cosa (Tuscany, Italy)

Allison E. Smith, Florida State University

This Field Report addresses the most recent seasons of the Cosa Excavations project (Tuscany, Italy). Conducted since 2013 under the auspices of Florida State University, Bryn Mawr College, and the Soprintendenza Archeologia Belle Arti e Paesaggio per le province di Siena, Grosseto e Arezzo, the project seeks to comprehend Cosa's public bath complex. Our excavation has primarily employed intrusive methods, which have been augmented by geophysical surveys performed by the University of Tübingen. Three-dimensional modeling aids in recording and analysis, and a coring survey of Cosa's port has been initiated to study the ecological history of the area. Legacy data from Cosa's past excavations are being reevaluated in light of new findings. As the final seasons of excavation approach, this report updates prior research and conclusions.

The bath complex seen today was constructed in the mid-second century C.E. and later refurbished. Recent excavations, however, have brought to light incorporated and modified architecture—walls of differing techniques, filled-in windows

and doorways, and substructures that pre-date this imperial construction phase. Whether the earlier structure held a similar function to the second century bath is a primary research question. Given its location in the town and the so-far excavated remains, however, the previous building may have functioned as a *domus*; further excavation is necessary to demonstrate this claim conclusively.

Using this imperial renovation, we reconsider the urban and social landscapes of Cosa presented by Brown, *Cosa I: History and Topography* (1951) and Fentress et al., *Cosa V: An Intermittent Town* (2003). Cosa's vitality during the mid-second century C.E. has been contested, yet this bath reveals significant signs of life before the town's recognized third century revival. The architecture, artifacts, and chronology of Cosa's bath prompt questions and debate, and we look forward to sharing our current hypotheses.

Desensationalizing the Grid 38 Bathhouse at Ashkelon

Simeon D. Ehrlich, Concordia University

Preliminary publication of the Roman/Byzantine bathhouse excavated in map grid 38 at Ashkelon posited a brothel above a sewer featuring remains of the prostitutes' unwanted offspring. Though later publications tempered or retreated from such assertions, the building's reputation of ill-repute persists. Recently, Liston, Rotroff, and Snyder (*The Agora Bone Well* [Hesperia Supplement 50, 2018]) and Carroll (*Infancy and Earliest Childhood in the Roman World* [2018]) have questioned this interpretation on grounds of bioarchaeological analysis and cultural practice. This paper questions it through reappraisal of the building's stratigraphy and material culture.

The argument here is that early publications drew unwarranted connections among three potentially scandalous finds—a bath with an inscription beckoning one to “enter, enjoy, and ...”; a deposit of discus lamps with erotic imagery; a drain with the bones of about 100 infants—and highlighted their more salacious aspects to the exclusion of their more mundane details. The manner of initial publication—on a perforated page removable by offended readers—served to reinforce the supposedly shocking nature of the finds.

This paper presents a thorough reevaluation of the bathhouse based on careful analysis of the original field notebooks, artifact registries, photographs, and plans. This research represents the most thorough analysis of this material since its excavation in the late 1980s and early 1990s and is an important step towards the final publication of the building. Given the renewed interest in the bathhouse and the inability of publications working from the preliminary reports to overcome the initial speculative interpretations, there is a need for a more measured analysis of Grid 38. That offered here—of a run-of-the-mill bathhouse bordering a lamp shop and situated above a bend in the sewer where debris accumulated—is less enticing than the initial impression, but better supported by the material evidence.

Session 2J: Open Session Excavating the Roman City

Corinth Excavations: Northeast of Theater 2019

Christopher Pfaff, Florida State University

From April 8 to June 28, 2019, the Corinth Excavations of the American School of Classical Studies continued its work in the area northeast of the ancient theater where a new campaign of excavations was begun in 2018. Seven trenches were opened up from the modern surface to the west and south of the trenches of the 2018 season. The work of 2019 revealed more of the *decumanus* at the north end of the excavated area, as well as more of the robbing trench that is likely to mark the line of a colonnade flanking the south side of the road. Further south, additional remains of the large Roman building discovered the previous year were exposed. As in 2018, the walls of the building were found to be robbed out in Late Antiquity, but additional portions of its aggregate floors were discovered in situ. The excavations of 2019 revealed that a series of fragmentary, rubble-and-mortar walls are likely to belong to a large, multi-room structure built in Late Antiquity over the earlier Roman building. This late antique building is probably to be associated with a well that produced a number of complete and nearly complete vessels of the sixth or early seventh century from its use fill. What initially appeared to be a contemporary tunnel connected to the shaft of this well proved to be a much earlier trench cut into bedrock and filled with late fourth-century B.C.E. pottery, including various imported Punic amphoras. The latest phases of the site are represented by four graves of the medieval or early modern period and a two-room building, probably a house, which appears to have been abandoned in the aftermath of the 1858 earthquake that displaced most of the population of the modern village of Corinth.

The Theater at Mandeure: 2019 Excavations

Daniel Schowalter, Carthage College, *Jean-Yves Marc*, University of Strasbourg, *Pierre Mougin*, Syndicat Intercommunal à Vocation Archéologique Mandeure-Mathay, and *Isaline Paccoud*, Architect, and *Séverine Blin*, Le Centre national de la recherche scientifique

Discovered and explored for the first time between 1817 and 1820, the Mandeure Roman theater (Doubs, France) has been the subject of new research since 2001. Work is concentrated mostly on the architecture of the last monumental phase of the building, but also on its earlier phases. The research also seeks to understand the extraordinary size and monumentality of the theater in the context of the Gallic provinces and Germanies.

In 2019, we opened three main sectors of excavation: above the south end of the theater, along the southwest façade, and in the *skene* building.

The area above the theater continued exploration of a previously unknown wall first discovered in 2018, roughly following the curve of the back wall of the *cavea* and then turning away to the southeast. One question remaining from last year

was why this wall was close but not exactly concentric with the *cavea*. In 2019 we discovered that at point where the wall turns there was a foundation built at the edge of the 30 m high cliff. Obviously it was necessary for the wall to turn at this point to keep people away from the edge of the cliff. A few meters north of the turning point, we also discovered a new entrance to the theater.

At the southwest façade off-season conservation work resulted in a newly exposed section of *opus quadratum* construction and a new view of the only surviving portion of the monumental façade. Careful excavation in the area resulted in new stratigraphic data and revealed blocks from a previously unattested earlier phase of construction.

Work in the *skene* building gave additional information about the plan developed after excavation in 2010. Small finds revealed clear evidence for occupation and activity during the fourth century and later.

New Excavations at the Punic-Roman city of Tharros, Sardinia

Steven Ellis, University of Cincinnati, *Eric Poehler*, University of Massachusetts at Amherst, *Leigh Lieberman*, Claremont Colleges, *Sarah Wenner*, University of Cincinnati, *Alex Marko*, Brown University, *Christopher F. Motz*, University of Cincinnati, *Angela Trentacoste*, Oxford University, and *Jane Millar*, University of Texas

The Tharros Archaeological Research Project (TARP; University of Cincinnati) carried out its first campaign of excavations in the summer of 2019. Situated on the west coast of Sardinia, the Punic-Roman city of Tharros served as a critical node in the network of important trade routes between the coastal ports of Spain (and the Balearics), Carthage, and Massalia. While best known for its unusually rich Punic tombs, these new excavations are targeting the city itself—particularly its residential and retail quarters—to establish a clear and more broadly contextualized history of Tharros’s urban development, as well as to ask new questions about the socioeconomic fabric of the city’s Punic and Roman levels.

The 2019 excavations focused on two distant and differently preserved areas of Tharros. Gennaro Pesce had excavated the first of these down to its latest surfaces in the 1950s, enabling us to begin our excavations from those latest ancient levels, as well as to engage with the legacy data itself. The second area was never previously excavated and thus allowed an opportunity to target the processes of urban abandonment. While the two areas revealed common urban structures at their uppermost levels, especially retail spaces, their distant locations allowed us to test the degree to which their growth spurts reflect common processes of socioeconomic development.

This first field report outlines the project’s preliminary results, which include the discovery in both areas of sizable buildings of the Punic period that were oriented to urban street systems that do not survive to the Roman era. Attention will be given to the artifactual and bioarchaeological assemblages: first, to demonstrate the relationships between the various finds and their taphonomic contexts; second, to forward some reconstructions of the ancient diet, as well as to discuss the exploitation of plant, animal, and marine resources.

Re-Dating the Foundation of Roman Florentia

McKenzie Lewis, University of Waterloo

The origin of the Roman colony Florentia (modern Florence) began with Dante (Paradiso 16.140–50), who envisioned violent Roman colonization upon native Etruscan territory. Vasari (La Fondazione di Florèntia), Borghini (Dell'origine della città di Firenze), and pre-World War I scholarship arrived at similar conclusions.

A shift happened in the early 1900s when it became accepted that Florentia was founded by Julius Caesar and formalized as a colony by Augustus. This timeline is drawn almost exclusively from the fourth-century *Liber Coloniarum* (213.6–7) and during the 1940s and 1950s significant ideological importance saw Italy's first capital founded by a strong, imperial Rome (Capecci 1996). Recently, Hardie (1965) and Campbell (2000) have argued for a similar imperial foundation. These interpretations omit contradictory evidence and uncritically follow historical testimony that places a Sullan colony at adjacent Etruscan Faesulae (modern Fiesole).

This paper argues that Florentia's origin dates to the settlement of Sullan colonies along the Arno River in 80 B.C.E., which is supported by textual evidence, archaeological data, and inscriptions.

Florus (2.9.27) records that Florentia was "put up for auction by Sulla" after the Social War. Granius Licinianus (36.34–5) states that the *veterani Sullani* settled at Faesulae lived in rural castella, which the native Faesulani attacked.

Late-nineteenth and early-twentieth-century archaeological reports (Milani 1895; *Notizie degli scavi di antichità*) show Florence as a Republican-era forum, with early-first-century B.C.E. houses along the later colony's *cardo*, late-second and early-first century B.C.E. coins under the Capitolium, and an Etruscan-era port, all of which gradually developed into Augustan Florentia.

A reexamination of inscriptions from Faesulae reveals only pre-Social War Etruscan and Flavian era Latin, with no epigraphy attributable to a Sullan or Augustan colony. At Florence, evidence suggests a Republican double community akin to mid-first century B.C.E. Pompeii.

A Craftsmen Association and Its Religious Worship in Later Roman Salona: Epigraphic Culture and Social History

Dora Ivanisevic, AIA Member at Large

Greco-Roman voluntary *collegia* had multifaceted aspects and functions, and here I explore the place of religion in a craft-based association, which has remained a comparatively underexplored topic partly due to the scant evidence, by looking at the epigraphic record of Salona, the principal city of Roman Dalmatia. I present an analysis of a group of four monuments that bear eight distinct inscriptions in Latin (CIL III, 1967a–b; CIL III, 1968a–d; CIL III, 8690; CIL III, 14725), the earliest of which I conjecturally date to the first decades of the third century, while the other four better preserved texts are dated by the consular dating to 302, 303, 319 and 320. The terms *minister* and *ministro* (Lat., "to assist, administer"), which encapsulate the religious activity of the individuals listed below, the topographical reference *ad Tritones* (Lat., "by the Tritons"), and the recurrent date of February 1

tie these texts together that then proceed with a list of the *ministri*, whose number varies across texts and ranges from eight to fifteen. There were a number of occasions for religious rituals and banqueting of *collegia* in the Roman west, such as the birthday of patron god(s), the patron's birthday, the anniversary of the founding of the association, and their participation in the imperial cult. With methodologically staying grounded in the archaeological and epigraphic record of Salona, I seek to show that these *ministri* were members of the *collegium fabrum*, namely "the association of builders," on whose behalf they performed the annual religious ritual dedicated to Hercules, likely the association's patron god, over the course of a century at least, of which they had these in-house records inscribed. I consider the association's religious commitment and political positioning with respect to the ever restructuring political, institutional, and religious relationships within the city and empire.

Session 2K: Joint AIA/SCS Workshop The Future of Archaeology and Classics in American Academia

Moderators: *Mary T. Boatwright*, Duke University, and *Jodi Magness*, University of North Carolina at Chapel Hill

Workshop Overview Statement

The Humanities in general, and Archaeology and Classics in particular, are under threat in American academia, as numbers of student majors drop, departments and programs shrink, and positions are eliminated. This jointly sponsored AIA/SCS workshop aims not to complain about the situation but to discuss ways in which our professional organizations can help to remedy it, by bringing together Archaeologists and Classicists with experience as department chairs or senior administrators from different types of institutions. The goal is to come up with concrete suggestions that will enable our disciplines not only to survive but to flourish in the academic reality of today and the future. How can we attract more undergraduate majors? How can our larger numbers of simply interested enrollees "count" for our presence in the academy? How can we best train our graduate students for the changing job market? How can we stave off the shrinkage or elimination of departments and programs? We hope that the conversation between the panelists and audience in this workshop will yield productive suggestions to help us move forward.

Panelists: *Kathleen Lynch*, University of Cincinnati, *Steven L. Tuck*, Miami University, *Jeff Henderson*, Boston University, and *Jennifer Rea*, University of Florida

Session 2L: POSTER SESSION

“Some Sailors’ Devize”: Rudder Intaglios as Marks of Rank in the Roman Fleet

Lisa Anderson-Zhu, The Walters Art Museum

In this paper I argue that a small group of carved intaglios dated to the first century C.E. functioned as signet rings and when worn each was a marker of rank for the pilot (*gubernator*) of a Roman ship. In 1731, Andrew Fontaine recorded a gem bearing an image of a Capricorn in profile over a ship's rudder and another of a dolphin in profile over a ship's rudder, in the collection of gems formed by Thomas Howard, Earl of Arundel as “Some Sailors’ Devize” (Arundel nos. 100–101). A banded agate, acquired by the Walters Art Museum in 1909 from Charles Newton-Robinson, carved in intaglio with a peacock in profile to the left over a rudder is remarkably similar in shape, style, and insignia to the impressions of the now-lost Arundel gems and may have been created by the same artisan (WAM no. 42.127). To this group, three intaglios from the British Museum, all acquired in 1814 from the Townley Collection, each of which combine a cornucopia, a club, and a caduceus with a ship's rudder, can be added (BM nos. 1814,0704.1608; 1814,0704.1610; and 1814,0704.1612). The rudder (*gubernaculum*) is prominent in the design of all six intaglios, clearly emphasizing not just a ship but also the role of steering it, which supports Fontaine's eighteenth-century interpretation of the Arundel gems. Of the circa sixty-five unique Roman ship names preserved from antiquity, most are named after deities, personifications, bodies of water, and animals or constellations. Using numismatic evidence, particularly the symbols typically combined with deities on Roman coins, I argue that the specific imagery on these six intaglios can be linked to known Roman ship names (club=Heracles, cornucopia=Fortuna, caduceus=Mercurius, peacock=Iuno, and perhaps Capricorn=Augustus and dolphin=Neptune), which can be used as a starting point for future identification of gubernator signet rings.

Materials in a Fayum Mummy Portrait and Its 1920s Restoration

Christina Bisulca, Detroit Institute of Arts, Ellen-Hanspach Bernal, Detroit Institute of Arts, and Aaron Steele, Detroit Institute of Arts

As part of the J. Paul Getty Museum's APPEAR project (Ancient Panel Paintings: Examination, Analysis, and Research), the DIA conservation laboratory undertook a technical study of a mummy portrait. The portrait was acquired in 1925 and is believed to be from Antionopolis (130/160 C.E.). The portrait was extensively restored by William Suhr (1896–1984), a well known paintings conservator who worked at the DIA from 1927–1935. The object was investigated with multiple noninvasive analytical techniques including X-ray fluorescence spectroscopy (XRF), Vis-NIR fiber optics reflectance spectroscopy (Vis-NIR FORS), Infrared reflectography (IRR), UV fluorescence imaging (UVF), and x-radiography. For binder identification a small sample was taken for Fourier transform Infrared spectroscopy (FTIR).

The portrait was found to contain iron oxide red, yellow and other earth pigments, lead white, carbon black, madder and indigo in a beeswax binder. This study highlights the advantages of Vis-NIR FORS as it can be used for the identification of some dyes and can give information to distinguish between different iron oxides (hematite, goethite) without removing a sample. The restoration was found to contain lead white, various earth pigments, carbon black, and synthetic alizarin. Although natural madder and synthetic alizarin cannot be distinguished in Vis-NIR FORS, they can be using UVF as only natural madder has a characteristic orange fluorescence due to the presence of purpurin.

Based on the results in the Getty APPEAR database, the materials identified in the portrait are consistent with those commonly encountered in other mummy portraits. The DIA is also researching the early restoration methods of William Suhr, as he treated many artworks at multiple institutions throughout his career. It is also important to characterize restoration materials, as these early treatments were typically not documented.

Painted “Doorway Panels”: Investigating a Curious Feature of Pompeian Wall Painting

Amanda K. Chen, University of Maryland

Understated and seemingly unremarkable, two painted panels decorate the doorway at the end of the *fauces* in the Casa della Venere in Conchiglia (II.3.3) in Pompeii. Characterized by a series of four concentric rectangles and a single vertical line on a plain red background, they are notable for their simplicity but also their ambiguous function within the decorative program. The “doorway panels” have rarely been the focus of scholarly attention, yet they appear in a consistent pattern in at least two other structures in the city, suggesting a codified use in the repertoire of Pompeian painting.

This paper will consider these enigmatic panels to investigate their meaning and function within the context of transitional and domestic spaces in the city of Pompeii. It will explore, among other queries, whether the “doorway panels” mimic a real feature of Pompeian architecture, if they are symbolic, or if they are simply meant to fill vacant space. To answer these questions this paper will consider a broad range of comparanda from around the Bay of Naples, including painting and architectural embellishment, to suggest that the panels were intended to represent and enhance the appearance of monumental domestic architecture. In particular, it will examine the significance of the location of the panels within doorways and their similarity to other known types of painted decoration, such as faux stone blocks or fictive columns, in an attempt to better understand an often overlooked aspect of Pompeian wall painting.

Re-Inventing the (Potter's) Wheel: Modeling 3D Vessels from 2D Drawings

Christian F. Cloke, University of Maryland, *Ella D. Breden*, University of Maryland, College Park, *Quint Gregory*, University of Maryland, College Park, and *Emily C. Egan*, University of Maryland, College Park

In recent years, photogrammetry and laser-scanning have become near-essential components of the archaeological toolkit, allowing researchers to translate artifacts into the digital space. These approaches, however, depend on reliable access to objects and heavy computing power, are time consuming, and can prove challenging for certain finds, such as those with glossy or reflective surfaces.

To help overcome these impediments, we have developed a new technique for digitally modeling wheel-made pottery. Using the suite of 3D tools provided in Adobe Photoshop we are able to accurately form and decorate 3D models of vessels based solely on the information contained in standard, two-dimensional technical drawings. Our process can be applied to whole or partial vessels found during excavation or survey and can be completed either on site or at a later date, without ongoing access to the original finds. The process is simple to learn, inexpensive, and time efficient, and the resulting models can be used within a variety of 3D platforms (including virtual reality) and shared online.

Our process also provides new opportunities for developing comprehensive catalogues of vessel forms, both digital and physical. Extensive digital galleries of common shapes found in standard reference publications (e.g., the Athenian Agora series) can be easily assembled and manipulated. Portable 3D prints of diagnostic features such as vessel rims have the potential to aid ceramics experts as they study material in the field. Further, downloadable digital models and durable 3D prints of vessels produced using our method can serve as powerful visual aids in museum or classroom settings, expanding the reach and appeal of ancient ceramics research to new audiences.

Interdisciplinary Techniques for Studying an Engraved Etruscan Mirror with Tiur, Lasa, and Turan

Nancy Thomson de Grummond, Florida State University, *Matthew Brennan*, Indiana University, Bloomington, and *Nicholas C. Plank*, Indiana University, Bloomington

The poster introduces a bronze engraved Etruscan mirror from a private collection (provenance documented before 1970) remarkable for its scene with three goddesses inscribed with the names Tiur, Lasa, and Turan. This is the only inscribed image of the Etruscan moon goddess Tiur known so far, and the image of Lasa adds to the known corpus of representations of that goddess assembled by Antonia Rallo (1974). The field of the mirror includes two crescent moons, amplifying the symbolism. Preliminary study suggests the mirror belongs typographically, stylistically and iconographically to a group of mirrors from central or northern Etruria dating to the later fourth century B.C.E. In the initial study of the Etruscan mirror, new techniques of documentation, by means of μ XRF (micro X-ray fluorescence) and photogrammetric 3D modeling, augmented the traditional methods of art historical and archaeological analysis and inquiry. The poster will explore the possibilities of digital and 3D technologies for the analysis, study, and

visualization of Etruscan mirrors, and offer preliminary results and best practices for scholars interested in performing similar documentation campaigns.

Measuring and Interpreting the Heterogeneity of Pompeian Assemblages

Kevin Dicus, University of Oregon

In this paper, I explore how statistical measures of heterogeneity help us to interpret formation processes of large artifact assemblages found within Pompeii. I take as my primary case study an assemblage found in the rear garden area of a domestic space. Joins of pottery and glass fragments found throughout the assemblage indicate that it resulted from a single, massive dumping event. The notably high degree of heterogeneity, including many types of artifacts uncommon in domestic assemblages, excludes the adjacent domestic space as its source. A second statistical examination of a domestic refuse assemblage supports this assertion. I measure the heterogeneity of a refuse assemblage coming from a Pompeian domestic cesspit and show that, in contrast to the large fill assemblage, it is much more homogeneous, composed primarily of materials related to domestic activities.

The only context, in fact, that exhibits an equally high degree of heterogeneity is an extramural dump. This evidence suggests that dumps were used to source materials to fill large voids of various types within the city. By comparing the heterogeneity of the individual stratigraphic units comprising the intramural fill and the dump, I then examine how these differences illustrate their different formation processes. The recurrent and periodic disposal events that formed the dump created strata of variable heterogeneity. When the strata of the dump were later removed for reuse as fill materials, the internal structure of dump assemblage became mixed. The mixed collection was transported back inside the city and deposited in a single event, erasing the stratigraphic differences that had characterized the municipal dump assemblage. By focusing on a single intramural fill and extending the examination to other contexts, this talk ultimately seeks to introduce new methods for juxtaposing various assemblages that on the surface may seem unrelated.

A Preliminary Report on Neolithic and Copper Age Settlement Chronology and Subsistence in the Middle Po River Valley, Northern Italy

Christopher J. Eck, University of South Florida, Robert H. Tykot, University of South Florida, Andrea Vianello, University of South Florida, Alessandra Sperduti, Museo delle Civiltà, Rome, Italy, and Claudio Cavazzuti, Museo delle Civiltà, Rome, Italy

The Neolithization of the Po Valley in Northern Italy has seen intense debate by scholars for decades. The fertile alluvial plain was the last region of Italy to receive the Neolithic package and undergo a commitment to agropastoral subsistence strategies, nearly 1,000 years after preliminary introduction in the southeastern Tavoliere plain. This hiatus in transition is underpinned by the rich natural abundance of wild resources available to preceding Late Mesolithic hunter-gatherers and to newly arriving agropastoralists. Early farming communities aggregated

and filtered portions of the Neolithic package to include well-known varieties of hulled and free-threshing wheat grasses and barley, and began to actively manage sheep, goat, cattle and pigs. The evidence for these domesticates derives primarily from archaeobotanical and zooarchaeological assemblages in the region.

The present study seeks to interrogate a collection of bioarchaeological materials excavated from five distinctive sites in southeastern Lombardy and reconstruct the diets of these early agropastoral groups utilizing biochemical methods, including stable isotopic analysis. Two new radiocarbon dates obtained for the two largest sites enrich the established chronology of Neolithic settlements within the research area. A subsample of 50 individual diets out of 109 samples, spanning the Neolithic and Copper Age, are reported utilizing $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ from bone and tooth roots obtained within a collaborative research project with the Museo delle Civiltà, Rome, Italy. This research is critically important to understanding past land-use at the beginning of agricultural production in the region, how the environment and biodiversity has changed, and the human sociocultural roles and identities that shaped and continue to affect the modern agricultural landscapes. Through isotopic ecology the earliest agricultural production, settlement patterns, and animal management, ancient lifeways inform contemporary sustainable cultivation and food production along the fertile alluvial plains of the Po River in Northern Italy.

Regional Variation in Plant Consumption in the Roman East

Jessica Feito, University of Reading

This poster uses archaeobotanical evidence in order to explore variation in crop choices and plant consumption in the Near East from the first millennium B.C.E. through Late Antiquity. Archaeobotanical sampling has a long history in the Near East and has seen a general increase in recent decades. Still, much of the archaeobotanical research produced for the region focuses on earlier time periods and topics, including the advent of agriculture, while the Iron Age, Hellenistic, and Roman periods have received less attention. In areas such as northwestern Europe and Britain, large-scale, synthetic studies have shed light on interesting shifts in crop choices that coincide with the advent of the Roman Empire. In these regions, the Roman period has been associated with the introduction and dispersal of new crops and agricultural practices, while in the Near East, which boasts a long history of urbanism and infrastructure, the larger shifts in plant consumption remain to be explored. As such, secondary data from the Iron Age through Late Antiquity has been collated and combined with new primary data, allowing for large-scale patterns in the archaeobotanical evidence to be detected. In this way, the effects of the incorporation of the Near East into the Roman empire, and the subsequent shifts in plant consumption that did or did not occur, may be better understood. Findings include a general decrease in glume wheats over time and regional variations in fruit representation.

The Vindolanda Archaeological Leather Project: Digitizing Demography of a Roman Military Site Using Footwear Deposition

Elizabeth M. Greene, University of Western Ontario, Barbara Birley, The Vindolanda Trust, and Shereen Fayed, University of Western Ontario

The Roman site of Vindolanda near Hadrian's Wall in northern England has produced critical evidence over the past fifty years for revealing the presence and activities of women and children within the communities of the Roman army. This evidence is mostly in the form of leather shoes that have allowed us to reconstruct the demography of the fort in different periods of occupation. The original study by C. van Driel-Murray (1993; 1998) of the shoes found in a barrack block of the Period IV fort (105–120 C.E.) showed that women and children likely cohabited with soldiers inside fort spaces, which entirely changed our understanding of life in Roman military settlements. This poster presents the most recent analysis and approach to organization of this extraordinary material. Since the 1990s, thousands more shoes have been found at Vindolanda and the assemblage grows every year, as does our understanding of the individuals who inhabited the site. We are now at the point that the assemblage is so large that in order to detect meaningful trends and patterns in the material, it must be digitized in a research-focused database with searchable fields that reflect current and future research questions. The Vindolanda Archaeological Leather Project is addressing these issues and extracting more information from the leather and footwear assemblage than ever before. In three parts this poster displays: (1) how this enormous amount of data is being organized to allow detailed queries of the material; (2) how we are assessing the future needs of researchers; (3) examples of the research questions being answered and refined with this unique material assemblage. Through specific case studies this poster shows visually how this extraordinary assemblage can reveal the individuals who comprised the military communities and who were central to Roman imperial conquest and control of a provincial region.

Epigraphy.info: Connecting Data for People

Aaron Hershkowitz, Institute for Advanced Study

This poster introduces Epigraphy.info to a North American audience and illustrates the major changes that Epigraphy.info intends to make to the digital epigraphic ecosystem. Founded in 2018, Epigraphy.info (<http://epigraphy.info>) is an international open community that works to gather and enhance the many existing online epigraphic efforts, and serves as a landing point for digital tools, practices, and methodologies for managing collections of inscriptions. To this point North American scholars have been underrepresented in the Epigraphy.info community, as has Greek epigraphy; this poster is part of an outreach program designed to spread awareness about Epigraphy.info and to increase and diversify its membership and partnered projects.

Epigraphy.info has held three workshop sessions to explore and define the goals and methodology of the community. Major initiatives to come out of those workshops include developing best practices to facilitate access to the ever-growing number of individual online epigraphic databases and projects, as well as finding

ways to preserve “dead” (static and/or moribund) digital publications. Additional issues addressed in the workshops include: guidelines, standards, and best practices; services for citation, revision, and exchange; financial support; and legal concerns.

Epigraphy.info is also working to construct a single web portal that can serve as a hub for a fruitful exchange of epigraphic data and digital solutions via Linked Open Data. Although there exists a rich ecosystem of online epigraphic content, at present there is no centralized hub through which a user can search for a particular inscription or fragment and receive a comprehensive accounting of the relevant information existing online. Epigraphy.info envisions creating a standard API to improve the ability of the digital epigraphic community to share information. This API would also allow for a centralized search-engine-type website which could provide comprehensive aggregated and indexed results in response to a user query.

Securing a Legacy: Examining the Dennis Stanford Paleo-Indian Collection Project

Catherine Hill, Smithsonian Institution, and Molly Kamph, Smithsonian Institution

In 2019, the Smithsonian Institution’s National Museum of Natural History’s Department of Anthropology began a collaborative project through the Smithsonian’s Collections Care and Preservation Fund aiming to inventory the archival and artifact collections of late Paleo-Indian archaeologist Dr. Dennis Stanford. Through a team of professionals encompassing expertise in Stanford’s career and collections, museum practice, and archives, the project continues the Smithsonian’s collections strategy of maintaining the association between archaeological collections and metadata during the inventory and eventual cataloging and processing phases to increase the collection’s value to future researchers and the public. The project will further establish Dr. Stanford’s legacy by establishing the Dennis Stanford National Paleo-Indian Collection, a preeminent national resource for Paleo-Indian scholarship, while making his work more accessible and allowing future researchers to further the field through engagement with Dennis Stanford’s collections. The poster will highlight the Dennis Stanford Paleo-Indian Collections Project’s goals, methodologies, and challenges as well as encourage discussion about the preservation, physical and intellectual accessibility, and legacy of archaeological artifacts and records while highlighting the incredible career of one of Paleo-Indian archaeology’s greatest voices.

Architectural Context and Aspects of Ritual Behavior at Late Minoan IIIC Kavousi Vronda

Kevin T. Glowacki, Texas A&M University, and Nancy L. Klein, Texas A&M University

The Late Minoan IIIC settlement at Kavousi Vronda, located in the northern foothills of the Thriphti mountain range in eastern Crete, consisted of about twenty houses clustered in complexes around the slopes and summit of the ridge, a large

“special status” building on the summit where communal feasting and drinking rituals took place, a shrine or temple on the southwest slope in which were dedicated numerous terracotta statues of the “goddess with upraised arms,” and a kiln. Evidence suggests that the settlement may have been inhabited for four generations (or around 120 years, ca. 1170–1050 B.C.E.) before being abandoned at the end of the LM IIIC period. As an extensively excavated and published settlement site, Kavousi Vronda has provided insight into domestic activities, architecture, religion, and social organization of a small community during the Late Bronze Age to Early Iron Age transition on Crete. In this poster, we present an architectural analysis of the shrine/temple (Building G) focusing on building materials, construction techniques, design, morphology, and spatial qualities that define the physical context for ritual activities. Our approach responds to the methodological framework of earlier scholars, including Renfrew and Prent, who proposed a system of archaeological correlates for cult activity in the prehistoric Aegean. We use Building G as a case study in non-monumental, vernacular architecture to focus on the contribution of the constructed space to ritual activity. In association with terracotta statues and other cult equipment (e.g., snake tubes, *kalathoi*, plaques) found within and around it, the architecture of Building G provides important evidence for understanding the ritual behavior and religious practices of the Vronda community, especially in terms of the construction of space for dedication and display, attention focusing devices, and the potential for participation by members of the community both inside and outside of the building.

Late Bronze Age Central Euboea: An Update from the Swiss-Greek Excavations at Amarynthos / a-ma-ru-to

Tobias Krapf, Swiss School of Archaeology in Greece

The Euboean Gulf was diachronically an important maritime route. Bronze Age sites are located along its two coasts. During the Late Bronze Age, the region was strongly linked to the Boeotian centers with mentions of Euboean place names in the Theban archives. Since the excavation of Lefkandi, Kynos, and Mitrou, it becomes clear that the region flourished after the collapse of the Mycenaean palatial system. While the British School at Athens excavated at Lefkandi, little attention has been paid to the plain further East towards Eretria and Amarynthos, except for some small-scale interventions by the Greek Archaeological Service.

The Swiss School of Archaeology in Greece, in collaboration with the Ephorate of Antiquities of Euboea, identified in 2017 the extra urban sanctuary of Artemis Amarysia two kilometers east of modern Amarynthos near the Paleoekklisies hill, which was already known for its Bronze Age occupation. The discovery in 2019 of an inscription mentioning the place name of Amarynthos leaves no more doubt that it is this site that should be identified with Linear B a-ma-ru-to.

A massive wall with associated LH IIIC pottery down the slope, at the place where later Geometric and Early Archaic buildings developed, as well as large quantities of pottery of all LBA phases from slope deposits give first hints about this flourishing Bronze Age site. This excavation project starts shedding new light on the topographical evolution of Central Euboea at the turn of the Bronze to the Early Iron Age with crucial developments taking place before Eretria, whose LBA

remains are scanty, was founded half way between Lefkandi and Amarynthos in the eighth century B.C.E.

In this poster a selection of LBA finds from Amarynthos will be presented for the first time, replacing this site in its wider context of the Euboean Gulf.

In My Grownup Headdress: Childhood and Investiture in Classic Maya Art

Zach Lindsey, Texas State University

Proportionally distinct children are rare in Classic Maya art, rarer still in monumental art. But images of children do exist, especially at Piedras Negras, Palenque, and Yaxchilan. All the dynasties which have portrayed children were weakened in some ways: either their kings could not trace direct descent to lineage founders, or the dynasty lacked a male heir to serve as undisputed ruler. With this poster, I look at iconography and epigraphy of children in Classic Maya art. Rulers that used images of children in their iconographic suite may have been performing a long-term Gramscian War of Position in an effort to maintain their political dominance.

Knossian Religious Influence in the Cyclades? A Minoan Stone Ladle from Stelida, Naxos

Kristine Mallinson, University of Missouri, and Tristan Carter, McMaster University

While primarily known as a Paleolithic site, work at Stelida (NW Naxos) in 2019 revealed traces of later Bronze Age ritual activity atop its highest peak. While much of the peak sanctuary's material culture was local, the activities being performed at the site were clearly influenced by contemporary Cretan ('Minoan') religious practices. In this poster we detail one significant artifact, a stone 'ladle' of banded dolomitic limestone. This vessel type has long been associated with Neopalatial Crete, classified as Type 23 in Warren's *Minoan Stone Vases* (1969), dated to MM III – LM I. While the raw material is not inconsistent with a Naxian origin, this stone was also used by Cretan lapidaries suggesting that the ladle could be one of a few genuine Cretan imports at the sanctuary.

The significance of this piece is manifold: (i) stone ladles are only found in ritual contexts; (ii) only seven examples are known from outside of Crete, of which two came from peak sanctuaries (Agios Georgios on Kythera, and Troullos on Kea), with another from the Mycenae Shaft Graves; (iii) these vessels were allegedly employed in sacrificial rituals; and (iv) these vessels were specifically associated with the religious personnel of Knossos.

Here we argue that the Stelida example argues for a more directioned, Knossian influence over the later Bronze Age elites of Naxos, rather than seeing the peak sanctuary as a reflection of Cretan religious practices more generally.

Artifact Illustration Using Camera Lucida Technology: A Guide for Researchers*Jennifer Martin, Archaist LLC*

Artifact illustration is an expensive and time-consuming process. As a result, only a select few artifacts will be illustrated from a large collection. While Photography and 3D Modeling have made great advances in disseminating information, they do not always convey the information a researcher wishes the audience to see. For this paper, I examine the use of a seventeenth-century technology which has been brought into the twenty-first century by means of a smartphone application. I provide a simplified guideline for using this technology. The use of the camera lucida has proven to increase speed and accuracy in producing artifact illustrations with the goal of lowering cost so researchers may share more information with the scientific community.

Dynamics of “Provincialization” and “De-provincialization” in Rural Roman Dacia*Matthew M. McCarty, University of British Columbia, Mariana Egri, Institute of Archaeology, Romanian Academy, Aurel Rustoiu, Institute of Archaeology, Romanian Academy, and Matthew Naylor, University of British Columbia*

The Apulum Roman Villa Project (ARVP) studies the diachronic socioeconomic dynamics of Roman imperialism at the micro-regional level by focusing on a complex Roman villa outside the largest conurbation in Dacia. Despite growing interest in rural Roman archaeology, ARVP is one of the first systematic, interdisciplinary excavations of a villa in Dacia Superior. Whereas past excavations of villas focused on uncovering and interpreting layouts as inherent products of Roman cultural-economic imperialism, ARVP poses questions about the ways specific social, cultural, and economically productive practices developed through time in dialogue with the changing power structures and networks of interaction. The project focuses on the nature/impact of Dacia’s “provincialization” (106 C.E. onwards) as a gradual process of incorporation into new networks of power and exchange as well as that of Dacia’s third-century “de-provincialization” as disincorporation from those networks.

This poster presents results from ARVP’s first two campaigns (2018–2019), funded by the Social Sciences and Humanities Research Council of Canada. Geophysical/pedestrian surveys sought to understand the layout, activities, and chronology of the site. The first season of excavation and interdisciplinary contextual analysis of all materials, alongside development of an innovative digital recording system, focuses on the luxury core and the multiphase working space.

Ceramics from survey suggest a very different trajectory than that observed in the northwestern provinces, with no immediate Iron Age predecessor; Roman provincialization created a substantial reorientation of territorial exploitation of land and other resources. The lack of settlement continuity may point to immigrant landowners, while the plan of the villa suggests that the villa owners were not simply replicating social and architectural patterns from other parts of the empire. Preliminary results from the current excavation season also point to the transformation of practices on the estate in the post-Roman period, with reoccupation and extensive quarrying of the luxury core.

Cistern, Streets, and Sigillata: The Venus Pompeiana Project 2019 Season in Detail

Marcello Mogetta, University of Missouri, *Ilaria Battiloro*, Mount Allison University, *Francesco Muscolino*, Pompeii Archaeological Park, *Lorenzo Arbezano*, Sapienza Università di Roma, *Janan Assaly*, Mount Allison University, *Sarah Buchanan*, University of Missouri, *Mattia D'Acri*, University of Missouri, *Daniel P. Diffendale*, American Academy in Rome, *Matt Harder*, University of Missouri; *Giordano Iacomelli*, Museo Civico di Tolfa, *Kirsten Mason*, Mount Allison University, *Collin Osborne*, Mount Allison University, *Ivan Varriale*, Archeologia a Napoli, and *Parrish Wright*, University of Michigan

The Venus Pompeiana Project, a collaborative effort between Mount Allison University, the University of Missouri, and the Archaeological Park of Pompeii, has completed three seasons of study and fieldwork within the precinct of the Temple of Venus at Pompeii, seeking to better understand the earliest development of the temple precinct.

In 2019, our excavation of a Samnite-period cistern and associated subterranean water channel suggests the presence of more substantial pre-Roman structures, probably domestic, west of the north-south road first recognized in prior seasons. The fill of the cistern offers considerable data on the final phase of use of the neighborhood, in the mid-first century B.C.E., prior to its demolition for the first phase of the Temple of Venus, around 30 B.C.E. We present the materials from the cistern fill along with the remains of informal architectural features constructed in the remains of the Late Samnite structure, testifying to a transition in the use of the neighborhood. We also present data on the excavated preparation layers of the *Vicolo di Championnet*, demonstrating a post-Samnite origin for this street, at least in its north-south leg, and the spoliation of its basalt pavers in connection with the Flavian-period expansion of the precinct of Venus.

The Roman Villa and Late Roman Child Cemetery at Poggio Gramignano (Lugnano in Teverina, Umbria): Report on the 2019 Field Season

David Pickel, Stanford University, *Jordan Wilson*, University of Arizona, and *Roberto Montagnetti*, Independent Researcher

This poster discusses the results of the 2019 field season of the ‘Villa Romana di Poggio Gramignano Archaeological Project.’ This project—a partnership between the Soprintendenza Archeologia, Belle Arti, e Paesaggio dell’Umbria, the University of Arizona, and the Comune di Lugnano in Teverina—aims to better understand the development of the Roman villa at Poggio Gramignano and its associated late Roman child cemetery, as well as their connection to malaria and the larger history of Roman central Italy.

Located near the Umbrian town of Lugnano in Teverina (TR), this Augustan period villa was originally excavated in the 1980s and early 1990s under the scientific direction of David Soren. These first excavations uncovered not only significant sections of the villa’s living quarters but also a unique child cemetery. It is currently hypothesized that this cemetery was the result of a malaria epidemic that struck the region sometime in the middle of the fifth century C.E.

Recent excavations have focused on the area of the cemetery. During the 2019 field season, eight new burials of varying types were uncovered, including two inhumed infants whose bodies were weighed down with stones and concrete. These newly discovered burials, together with those recently discovered during past seasons, brings the total count of distinct individuals found deposited within the villa's ruins to sixty. In addition, re-study of those burials previously discovered by Soren and his team has found evidence of midwife assisted birth. Finally, the 2019 field season saw the completion of a pre-Roman deposit of artifactual material, found to have been cut by the villa's foundation walls in close proximity to the area of child cemetery. Although study of this material is ongoing, it likely originates from an archaic settlement formerly located on or near Poggio Gramignano.

An Investigation into the Intensity of Pottery Production in Lerna III

D. Buck Roberson, University of Arizona

The end of the Early Helladic II (EH II) period in the Argolid provides an early high-water mark for social complexity in the Bronze Age on the Greek mainland. While some elements of EH II society such as power structures and trade mechanisms have received a fair amount of scholarly attention, others have not. One aspect underserved in the literature is the organization of pottery production. Despite the connection commonly drawn between increased social complexity and increased specialization in craft production, very little has been written directly on specialization in EH II pottery production in the region.

In order to help fill this gap, I examine the intensity of pottery production in Lerna III, the EH II type site for the Argolid. As intensity of production is closely tied to specialization, it can act as a good gauge of the level of craft specialization. I access this quality through the use of standardization analysis upon the published measurements of two common ceramic forms, the saucer and the bowl. These data sets are not only comparatively large but also contain identified hands in certain instances, which allows typically uncertain elements such as timespan and quantity of potters to be taken into account. The results of these standardization analyses I then compare to those of ethnographic studies into the relationship between the standardization of measurements and the intensity of pottery production across several cultures, which has been found to be generally consistent (Roux 2003). In doing so, I find that values from my standardization analyses of Lerna III pottery best correlate with production at very low intensity, suggesting that these two pottery shapes were most likely produced at the level of household production for domestic use throughout the period, running counter to the expectation of increased specialization in craft production.

Cultural Heritage and Rural Archaeology in the Alentejo, Portugal: A Case Study

Amanda Grace R. Santos, Boston University

Cultural Heritage Management is one of the ways archaeology stays relevant. The collaboration of Cultural Heritage Management and archaeology allows the data to be more accessible to the wider population, now as well as in the future.

The Direcção-Geral do Património Cultural (DGCP), established in 2012, oversees the many heritage projects within the historic Portuguese landscape. The DGCP lends itself as a model through which many local municipalities, and even entire countries, can cultivate their network of heritage projects and archaeological sites together. Lack of congruent local legislation, abundance of private land, and growing agricultural challenges are just a few limiting factors which produces a disconnected view of archaeology in the Alentejo region. Extensive travel throughout the Alentejo, participation in two archaeological digs in the area, and contact with local archaeologists revealed the multifaceted reality of cultural heritage management projects. Implemented correctly, these projects can overcome limitations and bridge the gap between the past revealed by archaeology and the reality of the cultural landscape today. GIS maps show a number of sites within the Alentejo which have management projects in place, those that have museums, and those which have potential to contribute with the rich narrative of rural archaeology in the Alentejo. A number of villages excel in bringing attention and support to their heritage in the form of small museums. Their success supports the need of a wider focus on cultivating heritage projects with the goal of a comprehensive narrative that successfully connects each municipality with local museums.

Petrographic Analysis Shows Differences between Early Medieval and Hellenistic Pottery, Grevena, Greece

Mary E. Savina, Carleton College, Ian M. Peters, University of Wisconsin, Madison, and Nancy C. Wilkie, Carleton College

More than 300 archaeological sites have been identified by the Grevena Project, an all-period archaeological survey of the 2,500 square km prefecture of Grevena, southwest Macedonia, Greece. Archaeological sites were variously inhabited at periods ranging from Early Neolithic (circa last half of eighth millennium B.C.E.) to Ottoman (fifteenth to early twentieth century). Sites of Hellenistic (fourth to first centuries B.C.E.) and Early Medieval age (seventh to tenth centuries C.E.) are spread across the entire area. We compared the composition and texture of 27 pottery sherds from coarse ware, 14 of Early Medieval age and 13 of Hellenistic age, counting at least three hundred points (including at least 100 inclusions) per slide. Results illuminate possible differences in methods used to create the pottery, including how long the clay was kneaded, the use of varying types and amounts of temper, and variations in firing temperature. For instance, compared to Hellenistic pottery, the fabrics of the Early Medieval sherds contain more void spaces and therefore seem to have been less worked (kneaded). EM sherds also have a larger quantity of natural temper (derived from the main pottery source) rather than manually added temper, such as grog (derived by breaking up older pots), though some do contain a grog component. Pottery derived from local sources can be identified by (a) components unique to the local geology, such as olivine, pyroxene and rock fragments from exposed ophiolite sequences; (b) poor sorting of non-matrix inclusions; and (c) overall higher percentages of inclusions. Using these criteria, we conclude that overall, perhaps all, of the Early Medieval sherds could have used local soil. Hellenistic-aged sherds are considerably more variable in matrix percent, type of temper, distribution of inclusion sizes and holes, and other properties. Some of these Hellenistic sherds may have been imported.

Cypriot Art at the Ringling Museum: A New Gallery

Joanna S. Smith, University of Pennsylvania

The John and Mable Ringling Museum of Art in Sarasota, Florida, plans to install its first permanent gallery of ancient art in Gallery 12 in 2021 as part of a museum-wide gallery reinstallation project. Gallery 12 highlights especially The Ringling's large collection of ancient Cypriot art. John Ringling of The Ringling Brothers Circus acquired nearly all works of ancient art now at The Ringling during four days of auction at the Anderson Galleries in 1928. All those pieces were once part of The Metropolitan Museum of Art's collections in New York. In 1928 he also acquired a collection of ancient gems. At 3,500 objects, the ancient collection today is The Ringling Museum of Art's largest holding; 2,300 of those objects were unearthed by Luigi Palma di Cesnola on Cyprus between 1865 and 1876. Gallery 12 will connect viewers through thematic and contextualized displays with the history of ancient Cyprus and the history of the collection, Cypriot aesthetics especially as understood through approaches to detail and abstraction, and art and experience through sanctuaries and tombs. The centerpiece of the gallery is a crowd of limestone sculptures said to be from Golgoi, Cyprus. Archaeological context also informs the displays of dedications said to be from temples at Kourion and objects from *necropoleis* on the island. Objects found inside a tomb chamber excavated in 1961 by James R. B. Stewart at Karmi-Lapatsa form the endpoint of a *dromos*-like part of the gallery space. Provenance and object research have revealed many new object biographies for the 200 objects to be displayed in the initial gallery installation. Conservation, mount-making, casework, print and digital didactics, an online resource, and a print catalogue are currently underway. This poster summarizes the history of the collection and previews the new gallery.

The Digital Archaeology Toolkit Project: Prototypes and Next Steps

Rachel Starry, University at Buffalo (SUNY), Smiti Nathan, Johns Hopkins University, and Zenobie Garrett, University of Oklahoma

The Digital Archaeology Toolkit project (<https://osf.io/v54zd/>) aims to curate a crowd-sourced list of digital tools and learning resources of use to practitioners in archaeology and related fields. Built atop these resources, the project will also curate multiple "deployable" digital toolkits to address specific research problems and workflows, such as plotting 3D data in the programming language R or creating an interactive online map. The toolkits, published openly online, can be customized by users and tailored to specific research or pedagogical needs.

This poster reports on the initial crowdsourcing phase of the Digital Archaeology Toolkit project, launched during a roundtable session at the 2019 AIA/SCS Annual Meeting in San Diego. Additionally, the poster showcases both a prototype toolkit—consisting of tools and resources for working with geospatial vector data in R—as well as a wireframe mockup of the future web interface for the project. Participating in the poster session affords project collaborators an opportunity to speak with potential users and gather feedback on the proposed user interface design and toolkit components, which will be invaluable in moving forward into the next project development phase.

Developing the Greek Natural Cults Project: Lessons on Digital Envy, Privilege, and Paradata

Natalie Susmann, Massachusetts Institute of Technology

As archaeology pushes towards an open, digital future, a virtual wall is being constructed. With limited access to research resources and funding, many scholars are forced out of the conversation. We want to replicate the excellent approaches of our colleagues, but these may be out of our reach.

Mantras about open-access archaeology are intended to bridge this digital divide, but efforts are largely focused on final products. Open-access archaeological projects will reveal beautified data on an impressive interface, but hold back on their paradata: how and why that data was collected or analyzed, and challenges inevitably encountered. Such accounts are valuable data in themselves, particularly for colleagues working with limited resources. Paradata speeds up archaeological discovery. Paradata extends the benefits of funding dollars. Paradata allows our colleagues to start where we left off, and not where we had begun.

This paper describes novel ways in which archaeologists can extend their open-access efforts, including releasing project budgets, producing tutorials, and sharing research journals online. The Greek Natural Cults Project (GNCP) is presented as an example: this is a low-cost digital archaeological project designed to “grow up” with the principal investigator. For an early career scholar, GNCP provides a tangible research trajectory, and is operational with minimal permits and financial resources. With professional advancements, the project so expands. Through each of these phases, the project’s digital work remains transparent: not just the interface codes and analytical results, but the processes, all the way from initial conception to future goals. In turn, like-minded scholars are provided with a research framework—for other regions, time periods, and questions—and can develop their own accessible, digital, landscape archaeology project from the ground up.

Using Pottery Profile Drawings In Photographic Reconstructions

Jeff Vanderpool, UCLA, and Tina Ross, UCLA

For our poster for the Archaeological Institute of America 2020 Annual Meeting, we present the working methodology for creating photographic reconstructions of ceramics objects based on profile drawings. Developed over several field seasons by archaeological illustrator Tina Ross and photographer Jeff Vanderpool, the methodology uses profile drawings to correctly position, light and photograph varying object fragments that belong to the same object but either do not have clear joins or where joins are too weak to mend.

This poster demonstrates the result of this process using case studies from excavations including Ancient Methone in Northern Greece and the Athenian Agora where Tina and Jeff have collaborated. We will use actual examples of objects of varying sizes, including some fine examples of wheel-made pottery and a large *pithos*.

The photography setup described includes a tethered capture system in which the photographer is able to overlay a profile drawing of the object onto the projected image of the individual pieces. The drawing is then used as a guide to correctly

position each individual fragment so that it corresponds correctly to the whole object. The tools required are a simple studio setup which includes a light table, one key light, transparent object positioning blocks, and a basic understanding of lenses and optical distortion.

The resulting photographs of the image fragments are then assembled using photographic post-production tools including Lightroom and Photoshop to create a photographic reconstruction of an object that corresponds directly with its profile drawings.

Biomolecular Investigations into the Use of Early Bronze Age Sauceboats from Ayia Triada Cave, Greece

Rachel Vykukal, University of Tennessee, Knoxville, *Fanis Mavridis*, Ministry of Culture and Sports, Department of Palaeoanthropology and Speleology, and *Zarko Tankosic*, Norwegian Institute at Athens

Early Bronze Age sauceboats from the Aegean have been the topic of much speculation regarding their intended function. It is generally thought that they were connected to ritual drinking or feasting practices, but the vessels have never been tested directly. Organic residue analysis via gas chromatography and mass spectrometry (GC/MS) provides a direct and well-established method to assess vessel function. In this project, sauceboats were sampled from the burial site of Ayia Triada Cave on Southern Euboea, Greece, as part of a larger project of residue analysis at the site and subjected to GC/MS to detect molecular evidence of their use. A range of animal and plant biomarkers were recovered. One sauceboat contained sterol evidence for a single plant, likely vegetable oil, while another contained substantial animal products, plants, and pine resin. The latter could represent a multi-ingredient foodstuff or drink, or successive uses of singular products, including sealants, throughout the vessel's life history. Notably, no evidence for wine was found in any of the sauceboats. The vessels yielded very different lipid profiles, suggesting they may have not been reserved for a singular substance. The vegetable oil could have been used for consumption or could be linked to ritual cleansing or other utilitarian use, given their finding within burial contexts. To our knowledge, these results mark the first biomolecular investigation into the use of the sauceboats. The chemical signatures call into question the connection of these vessels exclusively to drinking practices and suggest a reevaluation of these culturally significant vessels.

Menander's Phyle

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

One of the most intriguing features of Menander's *Dyscolus* is the setting itself of the story, which is imagined to take place at the sacred cave of Phyle on Mt. Parnes. On stage, this cave is represented as a roadside shrine flanked by two small farms. The actual archaeological site, however, offers an entirely different view. The cave does not open onto a road, but is located forty or so meters above a river cutting

through a steep, rocky gorge crossing Mt. Parnes in the western reaches of the deme. Based on this discrepancy, most scholars assume that Menander's recreation of the Phylasian shrine and its surroundings was not founded on reality, but was a purely imaginary construct devised for stage use and grounded in the idealized perception of the countryside that a fourth-century B.C.E. city-dweller would have. In this poster we show that the opposite is actually true. Although rearranged in space and adapted to the limitations of contemporary stagecraft, all elements of Menander's scenery can be shown to have equivalents in the natural and archaeological landscape of the Parnes. We aim to show that even if no farming establishments could have existed in the immediate vicinity of the cave, there are traces of early cultivations located only a few hundred meters from it. Similarly, although no road could conceivably have passed through the ravine in which the cave is situated, in the area that stretches between the shrine and the site of ancient Phyle there are surviving sections of at least two major thoroughfares and several minor ones, including a path that runs only a few meters above the cave. The list could go on. Based on a new survey of the cave and its surrounding region, our presentation argues that Menander's re-creation of Phyle is more grounded in reality than it has been generally believed, except that the elements of the landscape have been rearranged in a more compressed space and shown in what could be defined a foreshortened view.

Environmental Archives: Assessing the Utility of Legacy Archaeobotanical Data

Alice C. Wolff, Cornell University

As the discipline of archaeology ages, archaeologists find ourselves increasingly confronting the issue of legacy data. In particular, archaeobotanists are often faced with the challenge of assessing overwhelming amounts of material without being sure adequate recording exists to allow the data to be publishable. This poster examines legacy archaeobotanical data by comparing samples by Brian Hope-Taylor in Northumberland in the 1970s with samples taken by Alison South in Cyprus in the 1980s. The excavators of these two sites both processed bulk soil samples through flotation, but the results were never sorted and analyzed. My work evaluates these two very different approaches to sampling, recording, and archiving archaeobotanical data in order to assess what a 'workable' legacy data set might look like and provide a jumping off point for discussions about archival botanical remains.

Commercial Beekeeping in Ancient Greece

Francesca Zwang, The University of Texas at Austin

In the early 2000s, reports emerged that a series of diseases, known collectively as colony collapse disorder, were decimating bee populations across North America. With over one third of the world's crops relying on honey bees for pollination, the rise of colony collapse disorder and bee fatalities quickly alarmed the public and the agricultural community. Alarm came from the prospect of colony collapse threatening to jeopardize the world's agricultural economy, projecting a four

billion dollar deficit for the United States economy alone. The growing dangers of bee extinction shocked Americans. Yet, prior to these events, the importance of bees was largely overlooked, as most Americans did not recognize the vital role that bees play in the health of our environment, economy, and community. This same invisibility of bees is also reflected in ancient scholarship, where their presence is often overlooked by archaeologists and scholars. Honeybees were particularly essential to ancient Greek culture because of the medicinal, nutritional, and recreational value of honey and beeswax. Although it is widely accepted among scholars that honey and beeswax were important for ancient Greeks, the commerciality of these products is unclear. This paper explores the economic role that apiculture played in the ancient Greek world from the Archaic through the Late Hellenistic period (ca. 700 to 31 B.C.E.). By analyzing the place of apiculture in the ancient agricultural economy through archaeological, literary, and scientific evidence, I will elucidate the extent of the production of honey and beeswax in Ancient Greece. However, due to the lack of apiaries and groups of hives found in situ, there are large data gaps in this identification process. After detecting the evidence that exists thus far, I will propose to fill those gaps using different types of scientific analyses such as gas chromatography.

UNDERGRADUATE POSTERS

Archaeometric Analysis of Southern Methodist University Bridwell Library's Brick from Ur

Rachel M. Thimmig, Southern Methodist University

Much of the ancient Near Eastern archaeological record is comprised of clay material, whether that be cuneiform tablets or mud bricks. Southern Methodist University's Bridwell Library is lucky enough to have many different types of ancient Near Eastern clay artifacts in their AV Lane Collection. One such object, acquired by the library sometime in the 1920s to 1950s, is a brick believed to be from the Great Ziggurat at Ur. Unfortunately, archival documents do not mention the brick, so the provenance is known only by word of mouth. To put this claim to the test, a small sample of Bridwell Library's brick from Ur underwent archaeometric analyses to examine the firing behavior and shed more light on the elemental make-up of the brick. Though the step-wise clay oxidation and neutron activation analysis utilized by this poster cannot definitively prove exactly where the brick is from, they do inform us whether the artifact from Bridwell follows the typical trends of ancient Near Eastern brickmaking. This poster demonstrates the many different stories a simple brick can share with archaeologists. Archaeometry helps determine whether this artifact's story is about the construction methods of great religious structures or the rampant fraud that plagued the antiquities market in the early-twentieth century.

A Geospatial and Archaeoastronomical Analysis of Marcahuasi, Peru

Abigail H. Schofield, Boston University

The site of Marcahuasi is a high plateau approximately 4,000 meters above sea level and 60 kilometers west of Lima, Peru. There are clear native Andean architectural remains, including habitational, storage, and burial structures, but also rock formations of debated origin and date. This project is a geospatial and archaeoastronomical evaluation of the site and surrounding landscape. Eleven of the rock formations, or markers, were assessed for astronomical relationships and evaluated for possible modification by human activity. A correlation between the orientation of these stone monuments with celestial phenomena such as solstices and solar zenith passage would suggest the formations were created or purposefully modified by ancient Andeans and are anthropogenic rather than natural formations. The use of geospatial technologies to uncover interactions between past peoples and their skies allows for the evaluation of a past culture's view of the cosmos and its translation to calendars and religious systems. This study created a GIS for the site involving the eleven markers. I analyzed the line of sight and viewshed of the area to determine if the formations aligned with surrounding mountains. Additionally, planetarium software provided a view of the sky directly above the marker and from the location and was used to recreate the path of the sun during special days. Combination of these analyses allowed for a multifaceted view of the markers and potential alignments. The results indicate that some of the markers could be the product of human intervention, but the majority of the markers do not appear to have significant alignments during the summer and winter solstices.

A Study of Medieval Intrasite Find Distribution on the San Giuliano Plateau, Lazio, Italy

Anna C. Gibbs, Baylor University

The site of San Giuliano in northern Lazio, Italy, has a long history of occupation, spanning from the Bronze Age to the medieval period. The San Giuliano Archaeological Research Project (SGARP) aim to understand the long-term transitions and habitation patterns of the occupants of the region through research and excavation of the medieval fortification atop the San Giuliano plateau. The discovery of artifacts through excavation over the past four years have contributed significantly to our understanding of medieval daily life, furthered by the implementation of Geographic Information Systems analysis. This poster seeks to better understand the medieval presence in the San Giuliano landscape through the application of recent technologies to the correlated features of artifact location and attributes, within the medieval fortification excavation atop the San Giuliano plateau. The process of recording artifact contextual features, such as relative find location within the site and physical attributes, and subsequently statistically analyzing these features through GIS, presents results regarding artifact density and networking across the fortification. A more comprehensive understanding of where artifacts are emerging, what their similarities are, and how they are in relation to one another reveals site formation processes—how things got where

they are because of natural occurrences, cultural waste, misplacement, etc.—and overall settlement transitions in the medieval space. Ultimately, GIS technology supports the conclusion that this medieval site is a form of “*incastellamento*” – a type of fortification that is characterized by the relocation of large parts of the medieval Italian population into defensible, fortified sites.

Session 3A: Colloquium

The “Church Wreck” and Beyond: Marzamemi Maritime Heritage Project, 2013–2019

Organizer: *Justin Leidwanger*, Stanford University

Colloquium Overview Statement

The Marzamemi Maritime Heritage Project is a collaborative excavation, survey, and heritage management initiative along southeast Sicily focusing on long-term structures of human interaction from prehistory through classical antiquity and up to the present. In 2013, the project began with new investigations of the sixth-century C.E. “church wreck,” originally explored by Gerhard Kapitän in the 1960s. The vessel sank while carrying perhaps 100 or more tons of prefabricated architectural elements intended to decorate a church. Seven fieldwork seasons have yielded finds that fundamentally question much of the prevailing narrative surrounding this important wreck and its late antique historical context. Assorted columns, capitals, and bases complicate assumptions regarding their employment as a single set, while additional decorative materials suggest more complex networks of artistry and agency. An additional cargo of eastern Mediterranean wine reveals the commercial web of the ship and its sailors and the interdependence of high-end and everyday shipping. Varied galley wares suggest a crew from diverse cultural backgrounds, while clues from the ship itself fit a modest and well-traveled hull rather than a specialized stone carrier. These new finds offer a new window into the people, goods, and processes that tied together the Mediterranean during a transformative period at the end of the Roman world.

The Marzamemi project also aims to re-embed the “church wreck” and other local maritime heritage within the broader context of countless journeys along this shore. Situated between west and east, south and north, this corner of Sicily provides a vantage point for varied material manifestations of connectivity across millennia. Through survey of historic maritime material culture alongside innovative museum development and immersive exhibits, we juxtapose ancient ships with still older and more recent heritage at the heart of this “Middle Sea.” Our goal is to contextualize maritime archaeological practice in the Classical world within a dialog on long-term seaborne interaction, its material manifestations, and the constant remaking of Mediterranean spaces and cultures. This colloquium offers an opportunity to reframe our fundamental understanding of one of the largest and richest archaeologically attested cargos from late antiquity in light of seven seasons of fieldwork and research, allowing us to rethink its place within the context of interaction across a fragmenting Mediterranean. At the same time, the session underscores opportunities to broaden twenty-first-century maritime

archaeology in a way that leverages the past for new and challenging engagement with contemporary mobility and human connectivity.

Past and Present Investigations of the “Church Wreck” at Marzamemi

Justin Leidwanger, Stanford University, Elizabeth S. Greene, Brock University, Sheila Matthews, Institute of Nautical Archaeology, Leopoldo Repola, Suor Orsola Benincasa University, Matteo Azzaro, El Cachalote Archaeology, and Fabrizio Sgroi, Soprintendenza del Mare

The discovery of many tons of architectural elements, some with early Christian iconography, in the shallow waters off southeast Sicily piqued scholarly and popular imagination alike in the late 1950s; ideas ranged from a toppled coastal basilica to sunken Crusader loot from Constantinople. With pioneering fieldwork in the 1960s and early 1970s, Gerhard Kapitän set the interpretation on firmer grounds, arguing for a lost cargo of prefabricated architectural materials that never reached their intended sixth-century church. Collaborative survey and excavation by the Marzamemi Maritime Heritage Project since 2013 offer an opportunity to contextualize these architectural remains and to reexamine this famous site and its world of Mediterranean connections. While Kapitän limited his efforts to several test excavations and surface collection of large architectural elements mostly around the promising central sandy depression, new work across the entire site and the surrounding reef has revealed a wealth of different finds, generating insights into the ship’s cargo and crew, as well as its sinking and post-depositional processes. Detailed topographical survey and site modeling are further aiding understanding of these earlier and incompletely published explorations, allowing us to “re-excavate” virtually Kapitän’s pioneering explorations. Simultaneously, 3D documentation of the architectural finds—using structured light scanning out of the water and innovative photogrammetric methods in the water—affords opportunities to assess and to analyze comparatively the cargo elements uncovered by fieldwork projects across generations and currently split between two museums (Marzamemi and Siracusa) and the seabed. Beyond laying the foundations to rewrite the narrative of this famous wreck in the world of late antique architecture and economy, these seven seasons of fieldwork and documentation have allowed us to launch broader heritage initiatives that valorize the site within the long-term story of maritime connectivity at Marzamemi.

Churches on the Move: Reassessing the Architectural Cargo of the Marzamemi “Church Wreck”

Kaelin Jewell, The Barnes Foundation, and May Peterson, University of Chicago

Sometime in the fifth century C.E., a bishop named Porphyry sought to construct a new cathedral for the Palestinian city of Gaza. Although the building no longer survives, Mark the Deacon’s fifth-century *Vita Porphyrii* provides details regarding the financing, design, and construction of this late antique church. According to Mark, the bishop summoned an architect from Antioch to assemble local and imported architectural materials that included a set of thirty-two green

Karystian marble columns sent across the Mediterranean by Empress Eudoxia (d. 460 C.E.). Less than a century later, another architectural shipment wrecked off the coast of Sicily near Marzamemi. The vessel's cargo contained likely more than 100 tons of building materials prefabricated from stones sourced around the Aegean region. The presence of Proconnesian marble columns and capitals along with Christogram-decorated chancel barriers and a *verde antico* ambo led Gerhard Kapitän to refer to the site as the "church wreck." Although these components align with what is known about late antique ecclesiastical architecture, recent investigations have complicated Kapitän's hypothesis that the cargo was intended for a single church interior. In this paper, we address the possibility that this shipment included more than one set of building materials. Through a reassessment of the stone cargo that includes a discussion of the levels of finish on the thirty-three or more capitals—and new consideration of the recently uncovered finds of pigments, glass, and what could be small stone samples—we argue that the shipment reflects how architectural projects were commissioned and transported in late antiquity. By situating the "church wreck" stone cargo and decorative materials within its broader art historical context, we can begin to understand its place in the larger discussion of architectural design and the logistics of construction in the late antique Mediterranean.

Life Afloat: the "Church Wreck" Ship and Its Sailors

Sarah Wilker, Stanford University, *Andrew Donnelly*, Loyola University Chicago, *James Gross*, University of Pennsylvania, and *Ken Trethewey*, Institute of Nautical Archaeology

The Marzamemi "church wreck" is best known for its cargo of architectural elements. Yet it is the recently uncovered smaller finds—ceramics and remains of the hull itself—that offer some of the best data for contextualizing the vessel and its crew in the economic, social, and political worlds in which they operated to deliver the major cargo. The ship survives only in limited wood fragments, iron fastener concretions, lead patches, and some likely tiles, which together provide small but invaluable clues about the construction and purpose of the "church wreck." These materials indicate a fairly typical ship, about 30 m or longer, and made up of somewhat thick planking. Indications of wear suggest the vessel was not newly purpose-built for hauling this stone cargo, but rather had been in service long before acquiring its final load, problematizing the idea that heavy, elite shipments generated specialized modes of transport. The ceramics further support this position. A small but significant cargo of wine or oil carried in at least 80–100 transport amphoras points to a secondary level of commerce separate from the more opulent marbles and suggests a greater amount of economic independence than the traditional narrative of a vessel bound to the fisc allows. The surviving domestic pottery from the galley—a variety of African red slip wares, coarse wares, and cooking vessels of unmatched sizes and fabrics—provides evidence for a hodge-podge method of acquiring wares, creating what we hypothesize to be "mess kits" that could travel with sailors-for-hire as they moved among ships. Together, these new finds reveal a vessel well-suited for heavy transport but not one connected to the state or designed to transport a single stone cargo, and a crew thoroughly

embedded in the routines of persistent interregional commercial exchange of late antiquity.

A Monumental Outlier at the End of Antiquity?

Andrew Donnelly, Loyola University Chicago, *Justin Leidwanger*, Stanford University, and *Ben Russell*, University of Edinburgh

This paper assembles a new historical context for the “church wreck.” Baked into the original assessment of this vessel is the assumption not only that the ship was associated with Justinian, but that it could only be associated with Justinian. The imperial rebuilding program—a more contentious topic now following a half-century of late antique scholarship—was deemed the only possible impetus for such movements since Justinian represented a temporary arrest from decline. The ship quickly became a romantic metaphor, a vessel whose plunge to the depths is a reified reminder of what Justinian tried, and failed, to do. Frozen in time and thought, the “church wreck” has been given an identity that still bulwarks old assumptions about the late Roman economy and the movement of goods despite increasingly nuanced understanding of the period. Drawing on new fieldwork and finds, reexamination of older finds, and quantification of labor investments based on historical marble production, our holistic reexamination of the site challenges these imposed narratives, allowing the wreck to fit more plausible and flexible historical economic models. We consider two main possibilities here. The first is that the vessel predates Justinian, reflecting a thriving interregional Mediterranean exchange that was largely independent of any singular authority. The second involves uncoupling the ship from Justinian: even if this vessel sailed during his rule, the role of the fisc appears far less important than the desires and economic forces of local Mediterranean elites. These new contextual approaches suggest the “church wreck” vessel and its cargo should not be treated as a single datum point used to confirm historical arguments, but rather with an eye to evaluating how the evidence from this site shapes our understanding of the economy and culture of the late antique world.

Looking Out from the Crossroads: Maritime Survey in Southeast Sicily

Giuseppe Avola, University of Catania, *Nicholas Bartos*, Stanford University, *James Gross*, University of Pennsylvania, and *Sarah Wilker*, Stanford University

Underwater survey along southeast Sicily provides a window into millennia of connectivity at a strategic crossroads of the central Mediterranean that claimed the “church wreck” in late antiquity. Two seasons of investigations have focused on the fishing and commercial center at Vendicari, located just a few kilometers north of Marzamemi. The remains of the complex port landscape here include several anchorages behind a small island and submerged tombolo as well as a (now dry) channel for passage to an inland lagoon. Pre-Roman artifacts as well as Roman fish-salting and processing complexes and several nearby villas attest to a rich history of agriculture and natural resource management. Survey here has systematically sampled the submerged material record in an effort to determine

the evolution of this marine-oriented local economy and the commercial networks that connected it to the wider Mediterranean world. Following several seasons of preliminary work, more intensive explorations in 2018–2019 focused on two promising areas associated with Hellenistic-Roman and late antique phases of use. The resulting material record includes ceramics (amphoras and common wares) as well as metal concretions, well-preserved wooden ship components, and at least twenty-five ballast piles of varied size and consistency. Vendicari appears to have developed gradually through the pre-Roman and Roman periods thanks to its location along migratory tuna routes and shipping lanes between central Italy, North Africa, and the east. These connections intensified but narrowed in geographic scope during late antiquity as the port was integrated more firmly into the Aegean and eastern Mediterranean orbit, peaking after Justinian's reconquest of Sicily in 535 before a decline over the eighth and ninth centuries. Archaeological research at Vendicari and other sites along this southeastern Sicilian shore aids our understanding of diachronic regional development and the overlapping multiscalar interactions that shaped this central nexus over time.

Engaging the Past with the Present: Connectivity and Maritime Heritage at Marzamemi

Elizabeth S. Greene, Brock University, *Leopoldo Repola*, Suor Orsola Benincasa University, *Justin Leidwanger*, Stanford University, and *Rachel Stark*, Ryerson University

Fifty women sail from North Africa to seek asylum across the Mediterranean. Their voices form the chorus of Aeschylus's *Suppliant Women*, daughters of Danaus who trace their lineage to Io. The genealogical connection moves the Argives to accept these different-looking women into their land. With his 2015 production in Siracusa, director Moni Ovadia showcased the link between the ancient and modern plights of forced migration, with Sicily at their center. The island provides a timely vantage point for material manifestations of connectivity spanning millennia of varied seaborne journeys. The earliest craft have perished, but stone tools and animal bones provide evidence for the resources that drew humans to the Mediterranean's largest island. Warship rams speak to Roman naval expansion, echoed in later seaborne conflicts up to the Allied landings of World War II. Exploitation of migrating tuna appears in Neolithic cave painting, Roman and early modern fish-processing factories, and a few derelict hulls of traditional *matanza* vessels. The most recent boats to wash ashore recall the Danaids' saga, as political, social, and economic upheaval sends hundreds of thousands on perilous voyages. The "church wreck" reflects one spectacular sixth-century connection, one of dozens of vessels that foundered in these waters, and a snapshot of this larger and continuous picture of connectivity. Ongoing research and exhibition initiatives at Marzamemi juxtapose archaeological remains of the "church wreck" with still older and more recent heritage, contextualizing maritime archaeology within a broader dialog about long-term seaborne interaction, cultural identities, and their material manifestations. Mixing real and virtual objects in spaces spread across pop-up exhibits, dive trails, an app, and a new local Museum of the Sea, our

approach challenges the public to engage more deeply and meaningfully with the multifaceted realities of past and present connectivity.

Session 3B: Colloquium

New Research on Landscape and Human Mobility in Eastern Europe and Eurasia

Sponsored by the Eastern European and Eurasia Interest Group

Organizers: *Adam Rabinowitz*, The University of Texas at Austin, and *Carolyn Snively*, Gettysburg College

Colloquium Overview Statement

This session brings together the results of projects concerned with the movement of ancient populations across Eastern European and Western Eurasian landscapes, especially in the Balkans and the Black Sea area. Each paper presents new research that illuminates long-term patterns in human mobility and human-environmental interactions from the Neolithic to the Medieval period. Given contemporary concern about climate change and large-scale migration, as well as public interest in new information about past population movements revealed by archaeogenetic research, meticulous investigation of the way people interacted with landscapes and environment across history has become especially important. Eastern Europe and Eurasia stand at the center of discussions of ancient population movement but have not been subject to the same level of environmental and bioarchaeological research as the Mediterranean and Western Europe. The papers in this session report on multidisciplinary, diachronic approaches to landscape, environment, population mobility, and human responses to ecological and social challenges in regions from the Adriatic to the Black Sea. Research methods represented include ge archaeology, paleoclimatology, paleoethnobotany, osteoarchaeology, zooarchaeology, archaeogenetics, surface survey, geophysical prospection, and traditional excavation.

In "The Role of Climate Change in the Spread of Farming," the author asks whether a sudden climate change, the "8,200 cal BP event," during the early Holocene caused farmers to leave the Aegean region for the Adriatic. "Diachronic Landscape, Environment, and Settlement Patterns" reports on a survey of settlement patterns in Kosovo from the Neolithic to the present, associating shifts in occupation with environmental and political criteria. "The University of Texas Histria Multiscalar Archaeological Project" presents the results of multidisciplinary research focused on the demographic dynamics and environmental context of a Roman necropolis at Histria in Romania. Finally, "Golemo Gradište at Konjuh" considers the diachronic role of a naturally fortified hill that dominates the landscape of the Kriva valley in the Republic of Northern Macedonia, which served as a focus for local settlements before taking on military functions in Late Antiquity and the Medieval period.

Discussant: *Susan E. Allen*, University of Cincinnati

The Role of Climate Change in the Spread of Farming to the Adriatic

Andrew M. T. Moore, Rochester Institute of Technology

Farming spread from its center of origin in western Asia to the Mediterranean and southern Europe at the beginning of the Holocene. It reached the Adriatic by 8,000 cal BP (ca. 6000 B.C.E.). This phenomenon has prompted many questions. Why did farming arrive when it did? Who brought it to the Adriatic, and by what means? Results from the “Early Farming in Dalmatia Project” and other current research in the region are providing answers to these questions.

Migrant farmers from western Asia reached the Aegean before 9,000 cal BP (ca. 7000 B.C.E.). Then there was a pause that lasted a millennium. The onward spread of farming took this new economy rapidly westward to the Adriatic and beyond around the western Mediterranean. This dispersal took place along the coasts; the only reasonable explanation is that it was carried forward by migrating farmers looking for new lands to settle, an hypothesis supported by the latest ADNA evidence. The question then is, why did they leave the Aegean for the Adriatic and beyond so suddenly?

Recent research has focused on the impact of a sudden reversal of climate, the “8,200 cal BP event.” During this episode the climate of the early Holocene became cold and dry. This phase lasted about 300 years, or ten human generations, enough to disrupt the existing farming economy in the Aegean and over a much wider area. It probably caused some of these farmers to leave their homeland in search of fresh lands to colonize. The coincidence between the timing of this event and the arrival of farming in the Adriatic and on the Dalmatian coast is so strong that this seems to be the most likely explanation.

Diachronic Landscape, Environment, and Settlement Patterns in Western Kosova: Results of RAPID-K, 2018–2019

Sylvia Deskaj, University of Michigan, Michael L. Galaty, University of Michigan, Haxhi Mehmetaj, Kosova Institute of Archaeology, Erina Baci, University of Michigan, Zhaneta Gjyshja, University of Tirana, Anisa Mara, University of Toronto, and Dukagjin Mehmetaj, Kosova Institute of Archaeology

Our project, Regional Archaeology in the Peja and Istog Districts of Kosova (RAPID-K), is the first intensive, systematic survey ever conducted in Kosova, and aims to document settlement and settlement change in western Kosova through time. After two seasons of fieldwork (2018 and 2019), we may now begin to explain why people lived where they did at various key points in the region’s history, from Neolithic to Bronze Age, through periods of contact with the Mediterranean world, and down to the present. Two seasons of survey near the large Neolithic settlement of Rakosh have demonstrated that Neolithic peoples favored certain settlement locations over others, based on identifiable environmental criteria. These criteria changed in the Bronze Age, when villages were moved to higher altitudes, occupying hill fort sites. The exception is the large, flat settlement site of Pepaj, discovered in 2018, and further investigated in 2019. Targeted surface collection and subsurface coring helped to determine the size of the site and to clarify chronology. Such “flat” Bronze Age sites are extremely rare in the Balkans, and so

Pepaj provides a unique opportunity to investigate Bronze Age settlement beyond the oftentimes highly eroded, prototypical hill forts. In “Dardanian” times (i.e., during the developed Iron Age, beginning ca. 700 B.C.E.), occupation in western Kosova shifted once again, towards the hot springs at Banjë e Pejës. The reasons for this shift seem self-evident, related to the baths themselves, but other environmental factors can be shown to have been at play during this pivotal period. Roman occupation caused settlements to change once again; existing sites grew larger, but, clearly, new roads, such as the Lissus-Naissus road, played a role. Settlement in western Kosova in Medieval times exploded. Survey data, including maps of Medieval cemeteries and towers, may help explain the reasons for this explosion.

The University of Texas Histria Multiscalar Archaeological Project (UT-HMAP): Preliminary Results of the First Two Seasons (2018 and 2019)

Adam Rabinowitz, The University of Texas at Austin, *Liviu Iancu*, University of Bucharest, *W. Flint Dibble*, American School of Classical Studies in Athens, *Patricia Neuhoff-Malorzo*, The University of Texas at Austin, *Sterling Wright*, The Pennsylvania State University, *Elijah Fleming*, The University of Texas at Austin, *Rachael Dodd*, University of North Carolina at Chapel Hill, *Sheryl Luzzadder-Beach*, The University of Texas at Austin, and *Tim Beach*, The University of Texas at Austin

This paper presents the preliminary results of the first two research seasons of the UT Histria Multiscalar Archaeological Project, a collaboration between The University of Texas and the Institute of Archaeology “Vasile Pârvan” of the Romanian Academy of Sciences at the Greek and Roman site of Histria, near the Black Sea mouth of the Danube. Histria was founded by settlers from Miletus in the seventh century B.C.E. and occupied continuously for nearly 1,400 years. It has also been the subject of nearly continuous archaeological investigation for more than a century. As a result, it is a rich resource for the archaeology and history of the western Black Sea region across a long diachronic arc. But the record of research has left some notable gaps: a longstanding focus on the “acropolis,” the schist outcrop on which the earliest settlement was established and which the substantial walls of the city’s last phase defended, has left us with imperfect knowledge of the defended residential quarter on the “Plateau” to the west. This area was occupied from the end of the seventh to the first century B.C.E. and suffered several calamitous events that left clear horizons of destruction along the way. The Plateau also housed an extensive non-elite necropolis of the Roman period, parts of which have been excavated in the course of investigations at the edges of the pre-Roman residential and industrial areas. In its initial seasons, HMAP has focused on this cemetery in the context of a program of environmental and osteological research, using archaeogenetic, isotopic, geoarchaeological, and zooarchaeological approaches to understand the demographic dynamics and environmental context of the Roman-period population. This paper frames the occupation of the Plateau on multiple scales, from the landscape and its hydrology to the genetic analysis of the human oral microbiome using fossilized dental calculus.

Golemo Gradište at Konjuh: Landscape and History

Carolyn S. Snively, Gettysburg College

Much of the Balkan Peninsula is mountainous, divided by river valleys that offer lines of communication and level land for agriculture. In North Macedonia a sporadic line of cliffs rises above the southern bank of the Kriva River. Near the village of Konjuh, the Kriva enclosed three sides of a northern terrace that lay between the river and an isolated section of cliff or ridge, an acropolis, locally known as Golemo Gradište. In addition to Neolithic activity on the northern terrace and the southern slopes below Golemo Gradište, Neolithic pottery was found even on the acropolis. Although evidence for Iron Age and Hellenistic activity and—after a gap of centuries—Roman settlement appears around and close to the dominating hill, not until Late Antiquity did the naturally defensible terrain overcome the undesirability of a northern terrace and the arduous climb up a 100 meter high acropolis. After major engineering changes to the landscape, the early sixth century saw a heavily fortified, anonymous city of 17 hectares that included the northern terrace, a separate acropolis fortress, and a mostly uninvestigated area to the south. Several fortresses overlooking the road along the river stood on cliffs east and west of the sole city in the region at Golemo Gradište. The city was short lived, probably destroyed in the seventh century, but traces just below deeply eroded surfaces point to both “Slavic” and “Byzantine” presence. A one aisle church, an inscribed tombstone found at the church, and literary sources point to a settlement and the reuse of the acropolis fortress in the fourteenth century.

This paper considers the evidence for activities and settlement through several millennia on and around this dominant feature in the landscape and how that evidence has been or should be interpreted to recreate the history of a region.

Session 3C: Colloquium Foodways in the Roman Provinces

Sponsored by the Roman Provincial Archaeology Interest Group

Organizers: *Julia A. Hurley*, Joukowsky Institute for Archaeology and the Ancient World, Brown University, *Katie Tardio*, University of North Carolina, Chapel Hill, and *David Wallace-Hare*, University of Toronto

Colloquium Overview Statement

The study of foodways is situated at the intersection of archaeology, anthropology, sociology, economics, and classics, in a position not only to contribute to the dialogue between these disciplines, but actively link them. Since the 1990s, food has become a subject of scholarly focus across many disciplines, and has had a notable impact in anthropology and archaeology (Wilkins, Harvey, and Dobson 1995; Garnsey 1999; Wilkins and Hill 2006; Counihan and van Esterik 2008; Wilkins and Nadeau 2015; Erdkamp and Holleran 2019).

While some comprehensive studies on food in Roman antiquity have been done in recent years, there has been decidedly less interest in the provinces as cultural and economic centers. This session, conversely, centers the provinces in the study

of food in the Roman Empire. It investigates how food consumption and production practices shifted as the provinces became more connected with the Mediterranean world by placing emphasis on local agency.

Capitalizing on growing interest in the Roman provinces in North America—encouraged by the activities of the Roman Provincial Archaeology Interest Group—the following colloquium seeks to begin a new conversation about food in the provinces. To that end, we bring together scholars working on various types of evidence from across the provinces for an interdisciplinary discussion of food in the Roman Empire.

Our contributions offer interdisciplinary perspectives, and reflect the wide geographic span of the Empire. Papers include studies on cereals and nutrition in Egypt, using archaeobotanical as well as biochemical and papyrological evidence; animal exploitation and connectivity in the Roman West, at the macro and micro level; epigraphic and archaeological evidence for honey production in northern Portugal; subtle shifts in plant diet and crop regimes in Asia Minor; shifts in animal production across Roman North Africa as a whole; and a theoretical discussion of the concept of “edible identities” and changing production, exchange, and consumption of food across the western empire as a whole.

These topics span the range of material culture and the vast extent of the Roman Empire and its diverse foodways. We have deliberately endeavored to include papers which draw upon multiple lines of evidence, pushing back against the hyperspecialization that is common in archaeological studies of food. We hope that this session will contribute to and encourage growing scholarly interest in both the Roman provinces and ancient foodways. Each paper will be fifteen minutes in length, culminating in a response and collaborative discussion.

Rethinking Diet and Nutrition in Roman Egypt: An Interdisciplinary Approach

Frits Heinrich, Free University Brussels (VUB), *Laura Motta*, Kelsey Museum for Archaeology, University of Michigan, and *Paul Erdkamp*, Free University Brussels (VUB)

This paper aims to provide an updated model for diet and nutrition in Roman Egypt. It will combine an archaeobotanical approach with the study of papyrological sources and (nutritional) biochemistry.

Cereals and pulses have been important staples in human diets since the Neolithic Revolution. Despite recognition of their role as energy suppliers, the nutritional appraisal by archaeologists and historians of especially cereals has been far from positive. Cereals have also been held responsible for the alleged poor nutritional status of the Romans. The leading cause in the formation of this view were the results of modern biochemical analyses of cereals, which indicated that their micronutrient content was very low. Recent work in cereal biochemistry that compared modern cereals with their nineteenth-century herbarium counterparts, however, has shown this low micronutrient content is largely a side effect of the Green Revolution of the mid-twentieth century. It is therefore likely that Roman cereals have been nutritionally underestimated. It is however unclear to which extent nineteenth-century results are representative for antiquity. This paper presents the results of a study devised to obtain direct data on the nutritional qualities

of ancient cereals to answer this question. To achieve this aim, we use unique perfectly preserved, desiccated archaeological seeds from sealed granary contexts from the village of Karanis in the Roman Fayum. These results will be integrated within the wider written and archaeobotanical evidence on food consumption at the site, with a particular focus on the effects of food processing and preparation techniques.

This paper presents some of the first results of the FWO funded project, Rethinking Roman Nutrition: Assessing the nutritional biochemistry and stable isotope chemistry of archaeobotanical cereals and pulses from Roman Egypt, a collaboration of the Free University Brussels and the Kelsey Museum of Archaeology at the University of Michigan Ann Arbor. It hopes to contribute to a better understanding of the nutritional qualities of the diet in the Fayum during the Roman period in particular and the diets within the wider Roman empire in general.

Animal Production in Cisalpine Gaul and Hispania: Macro-Trends and Regional Trajectories in Roman Agricultural Production

Angela Trentacoste, University of Oxford, *Ariadna Nieto-Espinet*, Consejo Superior de Investigaciones Científicas (CISC), and *Silvia Valenzuela-Lamas*, Consejo Superior de Investigaciones Científicas (CISC)

Roman conquest of the Western provinces brought about significant changes to the economic and cultural landscape of Europe. Greater connectivity introduced new tastes, and wider exchange networks transformed food production in these regions. However, within continental-scale trends, different regions developed along distinct trajectories, influenced by their environmental situation, as well as existing traditions of livestock management. This paper explores Roman animal production in northern Italy and the Iberian peninsula in its economic and ecological context. Using zooarchaeological data, we track changes in livestock exploitation between late prehistory and Late Antiquity in order to evaluate the impact of integration with the Roman Empire on animal management. Isotopic analyses provide insight into the geographic scale of production, and consideration of environmental data demonstrates the effect of agricultural systems on the landscape. Results highlight the importance of connectivity—both in trade routes and topography—in shaping patterns of Roman food production. Distinct responses to economic integration with the Roman Empire, even in ecologically similar areas, demonstrate the need to evaluate the provinces (and their sub-regions) in their own right and in the context of their particular developmental trajectories.

Mel Novum: New Honey Pots from Roman Conimbriga

David Wallace-Hare, University of Toronto

The archaeology of honey production is a slowly developing but important sub-field within Roman archaeology. With few archaeological remains of Roman bee-keeping across the empire as a whole, the abundance of ceramic hives, honey pots, and literary attestations of apiculture in pre-Roman and Roman Hispania have made the Iberian Peninsula a buzzing epicenter of Roman apicultural scholarship.

While literary evidence from Pliny the Elder, Strabo, Diodorus Siculus, and the historian Justin firmly establish southern, central, and eastern Hispania as apiculturally significant zones, literary sources say nothing about beekeeping in the western and in particular the northwestern Peninsula. Archaeologically, however, northern Portugal represents one of the most important sources of our apicultural evidence, featuring not only some of the only ceramic beehives from the western peninsula (from Braga) but also an array of honey pots, with the largest number in the western peninsula found at the site of Conimbriga (modern Condeixa-a-Velha), in the district of Coimbra.

The current paper presents four previously unpublished honey pots (*vasa mel-laria*) from Conimbriga, discovered in excavations undertaken by a joint Portuguese-French team led by J. Alarcão and R. Etienne between 1964 and 1971. The paper lays the groundwork for publication of these pots, granted by the Museu Monografico de Conimbriga, arising from extensive autopsy of the material during a two-month AIA-funded fellowship to investigate and document any unpublished ceramic remains of Roman beekeeping in central and northern Portuguese museums. One honey pot features what seems to be a Hispano-Celtic name, representing the first such instance in the Peninsula. I contextualize this name among graffiti known from other ceramic finds from Conimbriga and within town's epigraphic evidence in the form of personal names suggestive of apicultural populations common in the anthroponymy of many other formerly Celtic speaking parts of the Iberian Peninsula.

Feeding Tarraco: A Zooarchaeological Approach to Food Preference and Provisioning

Katie Tardio, University of North Carolina, Chapel Hill

This paper presents my ongoing dissertation research on zooarchaeological assemblages to test models of continuity and change in the Iberian animal economy associated with the Roman conquest of northern Spain. Through a contextual analysis of animal remains from the ancient city of Tarraco and its outlying rural villas, I evaluate how indigenous Iberian economies and foodways adapted to Roman influence including changes in husbandry methods, continuity or disruption of economic practices, and shifts in food preferences. Specifically, my research targets evidence for the reconstruction of systems of production, distribution, and consumption from this important provincial zone from the fourth century B.C.E. to the third century C.E. Within Tarraco, sampling strategies target well-dated urban contexts, including both high and low status areas, in order to address changes to the animal economy across socio-economic and cultural/functional areas within the settlement. Rural villas provide a sampling of the extra-urban animal economies, as well as possible supply chains for the city. They demonstrate the shifting demands of the growing city on the hinterland's husbandry and distribution schemes, along with possible "improvements" and intensification taking place as Northeastern Spain became more connected with the broader Mediterranean world. Through investigating both urban and rural components of Tarraco's animal economy, I address the changing role of animals in this growing Romano-Iberian provincial capital.

Odd One Out? Dietary Practices in Roman Asia Minor

Erica Rowan, Royal Holloway, University of London

The province of Asia Minor was bequeathed to the Romans by Attalus III in 133 B.C.E. and for the most part, incorporation into the Roman Empire was a peaceful affair. The coastal and nearby inland areas of the province have a Mediterranean climate while the inland regions are denoted by semiarid steppe grasslands and the Taurus Mountains. Asia Minor was occupied by a multitude of sophisticated and well-connected cities and sites prior to its inclusion into the Roman Empire. Cities such as Ephesus and Sardis had already been inhabited for hundreds of years and were thoroughly integrated into the Hellenistic world. Consequently, food production and consumption practices, based on a mixture of cultural and climatic parameters, were already well established. In regions with a Mediterranean climate, people consumed a roughly similar baseline set of cereals, legumes, fruit, and nuts as elsewhere in the Mediterranean including Italy. Wine and olive oil were also well established staples. When considering shifts in dietary practices following the Roman conquest, Asia Minor therefore appears as the odd one out. Unlike the Northern provinces, where dozens of new foods were imported and introduced, the incorporation of Asia Minor into the Empire did not result in any significant or immediate dietary changes. Moreover, the introduction and domestication of new foods in the ancient world almost exclusively moved east to west and therefore the people of Asia Minor were already exposed to new foodstuffs before they reached Rome.

Fauna and Foodways in Roman North Africa from a Zooarchaeological Perspective

Michael MacKinnon, University of Winnipeg

The Roman conquest of North Africa brought a huge territory—from Egypt, in the East, to Mauretania, in the West—under its jurisdiction. Archaeological and historical data attest to a variety of cultural changes in North Africa that resulted from this event, including a greater degree of urbanization, militarization, and wealth accumulation in some areas, increased agricultural demands, due to taxation in kind for grain, and a push to exploit new regions and resources, which prompted Roman expansion both along the Mediterranean coast and down into desert frontiers. Each of these changes, in turn, affected the role and contribution of fauna and foodways in Roman North Africa. Zooarchaeological data attest to several important modifications, in this regard, including: (1) augmented demands on provisioning North African cities and military sites with meat, especially pork, with concomitant impact upon economies, diets, and butchery practices in these locales; (2) modifications to animal husbandry schemes, with shifts in the scale of pastoral herding (increasing or decreasing, depending on the area), the composition of such herds (sheep, goat, and cattle ratios), and the territories in which aspects were practiced; (3) livestock “improvements” facilitated in part by aspects such as increased trade, dietary appeal for animal products (notably fatty meats), as well as economic and cultural contact among areas. This paper assesses patterns in these three components in a broad synthetic manner, using zooarchaeological

data from the entire expanse of Roman North Africa—from Egypt to Mauretania. Attention focuses on key similarities and differences in faunal patterns and the links these share with dietary changes, which in turn appear to have been shaped to varying degrees and in various ways by Roman contact and influence across the region.

Eating Empire or Going Local?

Robert Witcher, Durham University, and Emily Hanscam, Durham University

In this paper we advance the concept of ‘edible identities’ to explore the shifts in agricultural production, exchange and consumption across the western Roman empire. We start by deconstructing generalizations about cultural and economic change in order to expose the underlying persistence of the Romanization paradigm. Such thinking is apparent, for example, through the continuing distinction between core and periphery, or between Italy/the Mediterranean and the provinces. In terms of diet and foodways, this plays out as a contrast between the canonical Mediterranean diet of cereals, oil and wine, largely defined through reference to the classical sources, and an impoverished Iron Age diet enriched by the arrival of new and exotic foodstuffs, attested by archaeological evidence. We argue that the legacy of this Romanization model is to underestimate the diversity and development of foodways in the Mediterranean, whilst exaggerating these issues in provincial contexts by focusing attention on exotics rather than diet as a whole.

Instead of approaching Mediterranean and provincial foodways as two distinct phenomena to be conceptualized and studied in two different ways, we argue for the need to approach the changing production, exchange and consumption of food across the western empire as a whole in local terms. By shifting attention from spatial patterns to social practices, we can refocus attention on local agency and the motivations for change—and/or continuity—in diet. We argue, for example, that the adoption of novel foodstuffs was not driven by a universal fascination with exotic tastes, nor by the automatic availability of new plants and animals as a result of greater connectivity. Rather, changing local circumstances made these foodstuffs more—or less—desirable within evolving social and economic contexts. Urbanization, for instance, not only concentrated economic demand to create new markets but also facilitated new social categories. The production, exchange and consumption of food was vital to the expression of the emergent social identities in these new urban centers, whilst simultaneously redefining the significance of foodways for preexisting identities.

In this paper we therefore argue that it is vital both to link the study of provincial foodways with those in the Mediterranean and, at the same time, to advance the importance of agency at the local scale to explain these changes. By combining the local and the global, we connect with studies of globalization of the Roman past and rural landscapes.

Session 3D: Colloquium

Secrets Incalculable: Reuse of Documents and Data in Archaeological Research

Organizers: *Jon Frey*, Michigan State University, and *Fotini Kondyli*, University of Virginia

Colloquium Overview Statement

One of the most significant differences between the perception and reality of archaeological fieldwork concerns the amount of time archaeologists spend documenting their activities. In contrast to the public's focus on the moment of discovery, practitioners know that the work of archaeology is paperwork. As a result, archives of archaeological projects that began decades ago are filled beyond capacity with photographs, drawings, and handwritten records. The move toward "paperless" recording techniques, which provide easier storage and retrieval of digital data is one positive response, as digital records and open access policies allow a wider range of individuals to engage in research that is larger in scope and more diverse in nature. At the same time though, newly developed digital workflows threaten to exacerbate a long standing problem: "legacy data," which is not always machine-readable, remain underutilized in archaeological research and publication. It has been sixty-five years since John Beazley argued that "secrets incalculable" lay hidden in "the enormous stores of objects already above ground" and twenty-five years since Susan Alcock demonstrated the value of a comparative study of archival survey data (Beazley 1943 [1989]; Alcock 1993). Yet the types of research that they pioneered remain a rarity to this day.

Archaeologists should make better use of data sets and records that they did not originally create. The papers in this colloquium have thus been assembled in an effort to raise awareness of this fundamental problem with our archaeological practices and offer possible solutions that can be used and replicated in other projects. Main themes include the potential role of legacy data in new discoveries and pioneer research, the challenges inherent to the interpretation of legacy data and their integration in current research and computational methods employed to support the data's systematic study and publication. We particularly welcome papers that experiment with new digital tools to make legacy data more accessible both to the academic community and the wider public. Such research carries with it a unique set of challenges, but is often more interesting and informative. For if, as the SAA plainly states, "Archaeologists have both ethical and legal obligations to preserve all the data they collect for the benefit of future generations," should they not be equally obligated to make use of the information that already exists? (<https://www.saa.org/about-archaeology/what-do-archaeologists-do>)

Discussant: Sarah W. Kansa, AAI / Open Context

Reflowing Legacy Data from Polis Chrysochous on Cyprus

William Caraher, University of North Dakota, and *R. Scott Moore*, Indiana University of Pennsylvania

Over the last decade, a team at the site of Marion-Arsinoe in the village of Polis Chrysochous on Cyprus has studied the notebooks produced from over two decades of excavation at the site starting in the 1980s. This work involved converting narrative notebooks into various forms from data in databases to graphic representations in pseudo-Harris Matrices and ultimately synthetic and analytical descriptions. Translating archaeological information between forms was both a convenience and a step of analysis that depended on the various affordances offered by the available tools as well as our goal to establish the phases and artifact assemblages present at the site.

By offering our work at Polis Chrysochous as an autoethnographic case study, this paper considers the act of defining and translating data from legacy formats and methods, to a database that can integrate with other data sets developed over the course of our work at Polis. By emphasizing the translational aspects of converting data from one format or standard to the next, we reframe the value of archaeological knowledge according to its ability to relate to other data sets. This relational recoding of archaeological information produces new assemblages and knowledge, at the same time that it obfuscates and renders incompatible other earlier forms. Legacy data becomes defined by the information left behind and contemporary data becomes defined by its ability to contribute to the larger flow. This paper demonstrates how approaches to defining legacy data traces the changes in contemporary archaeological knowledge making.

New Discoveries within Old "Legacy" Data from the Athenian Agora Excavations

Fotini Kondyli, University of Virginia

One of the biggest challenges in archaeological projects, especially in large-scale and long-running excavations, is dealing effectively with the large data sets created in the process. Such is the case of the Athenian Agora Excavations which has been run by the American School of Classical Studies at Athens almost continuously since 1931. While new technologies and recording methods are currently employed to better capture and analyze the volume of data from each excavation season, much of the "legacy data," the archival and printed material of the early excavations at the Agora, remain understudied and under-published, especially those pertaining to the post-classical periods.

My project deals with Byzantine city-making processes and the different groups and individuals involved in them. It takes a closer look at Byzantine Athens as its primary case study focusing on the area of the ancient Athenian Agora. Main aims include the study of architectural and functional changes in the city from the fourth to the fifteenth centuries C.E., so as to better understand the topography, spatial layout and living conditions of Byzantine and Frankish Athens. I am equally interested in the lives and experiences of the city's ordinary, non-elite inhabitants and their role in the built environment and city-making processes more broadly.

To deal with the staggering amount of existing information and address issues of data organization, comparability, accessibility, and analysis, I employ a variety of computational methods to identify and systematically extract information from the excavation archives pertaining to the Byzantine and Frankish periods. Such methods allow me to interrelate different types of information (artifacts, maps, notes) and integrate different media (text, images, 3D reconstructions, video) that in turn support a detailed study, visualization and interpretation of the excavation results. I am also updating and recreating existing paper site maps, floor plans, and drawings of Byzantine buildings in 2D and 3D environments to clearly display changes in spatial organization, use of space and architecture, and contribute to the reconstructing of the Byzantine settlement in the area of the Agora which is now destroyed and not accessible. The digital tools employed provide new and effective ways to analyze and synthesize large and heterogeneous data sets that form the basis of the project's study on the relation between human behavior, spaces, and objects in Byzantine cities.

Calculating Secrets: The Pompeii Bibliography and Mapping Project and the Pompeii Artistic Landscape Project

Eric Poehler, University of Massachusetts at Amherst

After more than 250 years of continuous excavation, there is a compelling argument to be made that the ancient city of Pompeii itself should be understood as 'legacy data.' Such an argument need not rely merely on the time elapsed since the last great excavations or that the excavators, to whom this research belongs, are no longer with us. Equally valid are claims that the sheer scale of the city and the difficulty of accessing its documentation—sometimes even when fully published—separates the scholar from the evidence in a manner functionally equivalent to that of an unpublished site. You can't read what you can't find, you can't study what you can't see, and you can't map what you can't measure.

This paper discusses two interrelated digital research projects—the Pompeii Bibliography and Mapping Project and its descendant, the Pompeii Artistic Landscape Project—that are striving to overcome some of these impediments. Combining online, digital mapping with a web catalog of more than 23,000 references, the mission of Pompeii Bibliography and Mapping Project is to provide access to a digital surrogate of Pompeii's physical landscape with the ultimate goal of using the city's architecture to scaffold (at least) its bibliographic information. The Pompeii Artistic Landscape Project is already beginning to realize a related goal by attaching research data on wall paintings, mosaics, and other artworks to their representations in the map. Produced in Linked Open Data formats, this project will make tens of thousands of individual observations of ancient art on specific walls at Pompeii both human readable and machine actionable. Together, these projects promise a new way to activate the vast stores of data about Pompeii, much of which languishes in plain sight as simply the site itself.

The Karanis Housing Project: Using GIS and Relational Databases to Share Legacy Data

Drew Wilburn, Oberlin College

Legacy data sets provide critical contexts for artifacts housed in museums and storerooms in the United States and abroad, with the potential to open vast reserves of untapped material for contemporary investigations of the past (Kintigh 2014; Bevan 2015). The University of Michigan excavations at Karanis (1924–1935) recovered a multitude of finds, including thousands of artifacts and papyri that were divided between the University of Michigan and the Egyptian Museum in Cairo. In addition, many more thousands of artifacts were recorded but left in the field. Detailed field journals, excavation diaries, maps, plans, and photographs are currently kept at the Kelsey Museum at the University of Michigan. The artifacts in the Kelsey's collection and the papyri in the University of Michigan Papyrus Collection have been digitized, but most of the excavation data is moribund in analog format, available only by visiting the collection.

In order to increase access to this material, the Karanis Housing Project has explored the potential benefits of translating selected Karanis data sets into a geographic framework structured around each artifact that was uncovered. To this end, the project has developed a digital map of the site that translates the analog maps into a GIS format, and has begun the process of entering all of the finds into a relational database with descriptions of the artifacts and papyri recovered from the site. The GIS and artifact data are available through an online platform and associated webpage. This paper will evaluate the effectiveness of the GIS platform for disseminating legacy data sets, considering both the drawbacks of this approach and the potential analytical outcomes from digitization and big-data analyses.

Antioch on the Orontes Reloaded: New Interpretative Frameworks from Old Contexts

Andrea De Giorgi, Florida State University

Eighty years ago, the Antioch excavations led by Princeton University produced a wealth of finds that opened novel, albeit problematic, vistas onto a city that played a fundamental role in the shaping of politics and cultures in the Greek and Roman East for more than a millennium. While the cosmopolitan character of this unique community has been thoroughly addressed by much scholarship, questions about the town's built environment, how it was perceived, experienced, and resisted and its relationship with the countryside on a regional scale must be now brought into focus for all periods of history. These queries can also redefine what is traditionally understood about Hellenistic and Roman Antioch and, at the same time, unveil three major and previously overlooked periods of history that must be closely examined to understand the city's transformative processes: Late Antiquity, the Early Islamic period, and the Medieval period of Middle Byzantine, Saljuq, and Crusader rule. The recent establishment of the New Committee for the Excavations of Antioch and its Vicinity and the completion of its pilot study for sector 17-O, as well as the concomitant Syria TIB and the now under way Lexicon Topographicum Antiochenum Project attest to the vitality of the field and,

together, the necessity to better nuance Antioch's multilayered nature. Drawing on new historical frameworks, key archaeological data, and reexamination of the Antioch collections at Princeton University, I address the city's continuous becoming through the lenses of select, partially investigated domestic contexts in Daphne. How this perspective sheds new light on the rise of this suburb as well as its spatial relationship with Antioch is, in particular, the thrust of my presentation.

(Paper) Points, (Pencil) Lines and Polygons at Isthmia

Jon Frey, Michigan State University

Thanks to the growing accessibility of “off the shelf” digital tools and technologies, archaeologists whose work focuses on pre-digital archaeological documentation now enjoy a wide range of options for converting their data from legacy to digital formats. At a most basic level, it is possible to scan or photograph each document, which can then be stored and shared in a digital archive. Of much greater utility is the conversion of not only the documents but the information they contain into formats that can be subjected to computational analysis. However, this more useful form of digitization necessarily involves a degree of interpretation as hand-drawn maps and field journals often lack the precision of modern recording tools.

This paper relies on one such digitization project at the Ohio State University Excavations at Isthmia to explore the problem of ambiguity in the mapping of archaeological information. Here, an effort to plot the findspots of artifacts has been hindered by the lack of a scalable site plan, the use of an obscure geographic model, and incomplete descriptions of objects of interest in the archaeological record. Most significantly, a lack of consistency among archaeologists in recording geospatial references yields ambiguities in the data that are inherently at odds with the level of precision needed for use in Geographic Information Systems. These problems have all required unique solutions, which are here presented for the benefit of other projects in similar circumstances.

**Session 3E: Colloquium
Between the Mountains and the Sea: Exploring Sissi on Crete**

Organizer: *Jan Driessen, Université catholique de Louvain*

Colloquium Overview Statement

The Kephali hill at Sissi is a coastal site, located 4 km east of the palatial settlement of Malia. Excavations and survey by the Belgian School at Athens since 2007 have brought to light a settlement and a cemetery within a very dynamic landscape. Strategically situated opposite the Selinari gorge—the only access to East Crete—the site was occupied from 2500 to 1200 B.C.E., mirroring that of nearby Malia. Because of a similar diachronic occupation, the site presents indeed an ideal case study to explore the relationships through time between a first-order center (Malia)—where a palace would be built from the Middle Bronze Age or the

twentieth century B.C.E. onward (if not earlier)—and a secondary site in its hinterland (Sissi). This provides an interesting test case to compare intraregional material culture—both where production and consumption are concerned—and opens interesting research avenues to explore various forms of (in)dependency through time and the implementation of emerging social and economic links. The papers in the session largely follow a chronological order with first papers on the Prepalatial settlement (Caloi) and cemetery (Schmitt and Déderix). Driessen and Devolder, respectively, concentrate on the function and architecture of the Neopalatial court-centered complex at Sissi—confirmed by the 2015–2019 excavations—which has added unsuspected angles of research and interpretation to this comparative study. A paper by Sager, Girardi, and Schmitt follows, on the funerary evidence of the Neopalatial-Postpalatial phases. There are also three specialist reports: one on the painted plaster from the settlement (Pareja), one on the micromorphological samples that allow a more refined household analysis (Magno), and one on the consolidation and outreach program that we are implementing (Claeys).

This colloquium will allow us not only to present synthetic papers on the various sectors revealed (cemetery, settlement, central building) on the site, their parallels and importance, but also to discuss to what degree the excavations have added, modified, or confirmed past ideas on Minoan civilization.

Discussant: *James C. Wright*, Bryn Mawr College

Consuming Pottery at Early Prepalatial Sissi: Preliminary Observations on the EM IIA and B Ceramic Deposits from the Settlement

Ilaria Caloi, Ca' Foscari University of Venice

During the recent 2015–2019 excavation campaigns, the Kephali hill at Sissi yielded a number of Prepalatial deposits that can be attributed to the E(arly) M(inoan) II period (ca. 2700/2650–2200 B.C.E.), offering the earliest evidence for occupation of the settlement in the Bronze Age. The aim of this paper is to present the Prepalatial deposits found in two specific areas of the Court-Centered-Building, i.e. the West wing and the North-West wing (Zone 11) as well as in two recently discovered Prepalatial buildings—Building 1 and 2—located to the West of the Court-Centered Building..

In the West wing, Spaces 10.8 and 10.19, although not completely excavated, produced Prepalatial assemblages dating solely to EM IIA. The deposit in Room 10.8 mainly yielded jugs, teapots, and bowls in Black-Burnished Ware but also a large collared jar and a long-spouted jug in light fabric. The deposit in Room 10.19, however, was very homogeneous and thus far comprises the earliest pottery of the Sissi settlement, which is EM IIA Early. It includes a number of fragmentary collared jars in Dark-on-Light Ware but also bowls and jugs in Black-Slipped and Semi-Coarse wares. In space 10.19, there is also a small installation made of upright slabs and the destruction layer next to it revealed several thousands of obsidian flakes (more than 4,000 pieces collected), blades, and nuclei, perhaps originally gathered in a container of some sort.

In the northern area of the Court-Centered Building, two EM IIB deposits were excavated. The first, in Room 11.1, is a large deposit that has only been preliminarily published. It comprised large amounts of pottery, which is quite similar to that of Malia, Vasiliki, and Myrtos. Most of the pottery is represented by vases of the well-known Vasiliki Ware, of a ware that imitates it, i.e., the Mottled Ware (also known as Pseudo-Vasiliki Ware), as well as in Semi-Coarse Ware. Buildings 1 and 2 have both revealed stratified EM IIA Early deposits. In particular, Rooms 10.24 and 10.25 from Building 1 have yielded a large number of juglets, which in Room 10.25 are associated with small cups, known as raki-cups.

In this paper, I first present the pottery from these various deposits dating to EM IIA and EM IIB periods, showing comparisons not only with the recently studied EM II deposits from the Palace and the high-profile Building Dessenne at Malia, but also with contemporary deposits in North-Central (e.g. Knossos) and Eastern Crete (i.e. Myrtos and Vasiliki). I will also attempt at defining the nature of the EM II occupation of the Kephali hill at Sissi.

Burying the Dead in Late Prepalatial and Protopalatial Crete: New Evidence from the Cemetery of Sissi (Zone 9)

Sylviane Déderix, Université catholique de Louvain, *Aurore Schmitt*, University of Aix-Marseille, CNRS, EFS, UMR 7268 ADES

The mortuary record of Prepalatial and Protopalatial Crete consists mostly of commingled bone assemblages that are usually taken as evidence for the practice of secondary burial. Secondary burial rites represent the final stage of double funerals and, as such, they integrate the deceased into the world of the dead while closing the period of mourning for their relatives. In addition, they represent a privileged arena for social negotiation among the living. A significant period may elapse between the moment of death and the secondary burial ceremony, thus enabling the deceased's relatives to gather resources to conduct lavish funerals matching their social, economic, and political ambitions. It has also been suggested that double funerals tend to be practiced in societies where kinship is the principal means of social organization and funerary feasts contribute to increasing the prestige of kin groups. Therefore, the identification of secondary burials has major implications for our understanding of mortuary practices, funerary beliefs, mourning processes, and, to some extent, social organization in Early and Middle Bronze Age Crete. But until recently, Minoan mortuary studies relied essentially on data sets collected during the first half of the twentieth century, in excavations that were generally carried out in a hurry and which brought to light masses of bones and artifacts that were later interpreted *de facto* as the result of double funerals. Yet, various anthropogenic and natural taphonomic processes other than secondary burial can produce commingled deposits. Only meticulous excavation by archaeo-anthropologists has the potential to recognize such processes and, in this way, reconstruct funerary gestures and rituals.

This paper discusses recent work in the Prepalatial and Protopalatial cemetery of Sissi, with a view to assessing the evidence regarding the practice of double funerals at the site. The cemetery, which extends on two natural terraces on the northern slope of the Bouffos hill, consists of rectangular tombs similar to those known

elsewhere in East and Northeast Crete (e.g., Malia, Mochlos, Petras). Excavations were conducted on the southwestern terrace of the cemetery (dubbed “Zone 9”) in 2010–2011 and 2016–2019, following the archaeothanatological approach. Numerous mortuary deposits were thus excavated, recorded, studied, and interpreted by archaeo-anthropologists. As a result, Zone 9 has provided substantial evidence for a broad diversity of treatments of the dead during the Middle Minoan I and II periods: primary vs. secondary depositions, individual vs. multiple depositions, removal of selected body parts, burials in clay as well as perishable containers, etc. Such a diversity contrasts with the traditional and rather monolithic view of rectangular tombs as collective tombs used for secondary burials, thus adding to a growing body of evidence that urges Minoan archaeologists to reconsider burial practices in Bronze Age Crete.

Keeping up with the Joneses? The Central Building at Sissi

Jan Driessen, Université catholique de Louvain

Following the abandonment of the Protopalatial cemetery on the Kephali hill at Sissi, a monumental complex around a Central Court was constructed in the Middle Minoan IIIA period. For at least a period of a hundred years, this complex existed at the same time as the major palace that stood at nearby Malia, less than 4 km away. It was abandoned at the time of the Santorini eruption. While on the island, there are several other examples of major centers that are located close to each other, the Malia-Sissi case, however, is the first where central courts are attested at such close proximity. This begs for a reconsideration of the role of such court-centered buildings. In this paper, I first address the layout peculiarities and preliminary architectural phasing of the Sissi complex before listing the evidence for a ceremonial and ritualized function and the absence of features of production, storage, and administration. I use this to propose a more varied hypothesis of what we understand as a Minoan “palace.”

Palatial Neighbors: Comparing Elite Architectural Features in the Palace at Malia and the Court-Centered Building at Sissi

Maud Devolder, Université catholique de Louvain

The recent discovery on the Bronze Age site of Sissi of a monumental edifice exhibiting the main features of a Minoan palace, i.e., elaborately built structures coherently surrounding a large central court, only few kilometres away from the Palace at Malia, has left scholars puzzled about its function. The contemporaneity of use of the two palatial buildings during the Late Bronze Age excludes the possibility that power was transferred from one coastal settlement to the other, but this duplication made it doubtful to some that the main edifice at Sissi should even be considered a palace. In this paper, the author wants to take the opportunity of her recent architectural study of the long-excavated Palace at Malia and of her participation to the excavation of the Court-Centered Building at Sissi to explore the architectural features shared by both edifices and most characteristic of elite palatial architecture on Minoan Crete. The presentation will highlight the specific material and technical choices that contribute to define both structures as palatial.

Furthermore, the possibility that skilled—and perhaps non-local—builders participated in their construction and thus the spreading of elite architecture on the island will be explored, and the way in which the monumental buildings were incorporated in the history, topography, and urban network of each site will be examined. The material features of both edifices will be considered in the broader framework of the Minoan Palaces, in order to address the architectural fundament of the palatial phenomenon.

Building 18 at Sissi: A Neopalatial House Tomb?

Tia Sager, University of Toronto, *Aurora Schmitt*, CNRS, University of Aix-Marseille, and *Chloé Girardi*, University of Aix-Marseille

At the coastal site of Sissi, the cemetery in Zones 1 and 9 on the northern slope of the Kephali has provided extensive evidence of the burial practices at Sissi during the Prepalatial and Protopalatial periods. Prior to the start of MM IIB, the cemetery of the lower terrace falls out of use and evidence for burials and burial customs from MM IIB onwards seems to disappear at Sissi, as it does on much of the island. In 2017, our team began excavations on the northern slopes of the ‘Middle Terrace’ at Sissi (Zone 18) where we expected to find the continuation of the Neopalatial domestic quarter (Zone 2). Instead, we found the first evidence for Neopalatial burial at the site. Zone 18 is located directly to the north of the Prepalatial and Protopalatial cemetery (Zone 1 and 9), and our hypothesis is that it was in use as a burial area likely from MM III, after the lower cemetery falls out of use, until LM IB. The excavation of Zone 18 during the 2017–2018 seasons has yielded evidence of a large rectilinear building surrounded by a pebble court. The building resembles the house tombs of the earlier cemetery, however, its construction is larger and of higher quality. Much of the building has been damaged from possible earthquake damage, and likely due to modern plowing activity on the hilltop. Throughout the 2017–2018 season, we discovered several primary and secondary burials tentatively dating to ca. MM IIIB–LM I inside the building with evidence of new burial practices, as well as a large ritual deposit containing smoker vessels, a large number of juglets and incense burners dating to LM IA inside a central room. Surrounding the building, we discovered a pebble courtyard area that underwent several phases of repaving, with large ceramic deposits placed directly on the surface of each consecutive pebble floor. Our hypothesis is that the building is a possible house tomb that was used primarily during the Neopalatial period for primary and secondary burials, with an area for the ritual preparation of the dead. This paper will present the results and preliminary conclusions of the 2017–2018 excavations in Zone 18, with a focus on the burials contexts and ceramic deposits found within and surrounding Building 18.

Observations on Sissi Plasters: Zones 4 and 5

Marie Nicole Pareja, University of Pennsylvania

Since the start of excavations at Sissi in 2007, thousands of plaster fragments have been recovered and stored for conservation and study. Initially, the dirty

fragments appeared to be mostly white lime plaster. During the 2017 and 2018 field seasons, a plaster specialist and conservator team inspected and cleaned several plaster samples from across the site, revealing that more than half of the samples examined preserve indications of painted surfaces.

Limited evidence survives from Zones 4 and 5 for the application of lime plaster as early as the Early Minoan Period. Its application levels areas where the bedrock is exceedingly uneven, and it serves a purely structural function. The majority of the remaining plaster dates to the Protopalatial period, during which the earliest painted lime plaster becomes widely employed throughout Crete. Of significance is the fact that these fragments carry almost the full range of pigments, as well as evidence for the planning of the composition of the image (snap lines and incision marks). Some of these early plasters are continuously applied from the walls to the floor with no division between planes: no seams or edges separate the plastered walls and floor. As such, this type of treatment provides an opportunity to increase the understanding of the early and experimental phases of painted plaster. Neopalatial material survives as well, although it is neither as much nor as well preserved as the Protopalatial fragments. Nevertheless, scant evidence for large-scale, possibly figural imagery survives, and parallels between identified motifs and comparanda from the broader Aegean are proposed for select fragments when possible.

The lengthy, nearly continuous habitation at Sissi provides an outstanding opportunity for the study of the experimentation with and development of plaster use and technology through the Bronze Age. As a site uniquely located nearest the natural gateway to East Crete, its inhabitants would have direct access to trade, technology, goods, and artistic trends from both north central and eastern Crete. As plaster studies continue at Sissi, the relationship with not only Malia, but with the rest of Crete and the broader Aegean will continue to be explored.

Investigating Cultural Sediments at Sissi through Microarchaeology

Laura Matilde Magno, Université catholique de Louvain

Cultural sediments being produced and altered by humans are a valuable source of information on site occupation practices. Microarchaeological techniques such as micromorphology and Fourier transformed infrared spectroscopy (FTIR) are used at Sissi to investigate some of the surfaces identified in the recent excavation campaigns such as plaster and tarrazza floors. The geological samples selected for this study were collected during the last seven years and are representative of the new structures uncovered since 2011. The sampled areas included open spaces such as the central court and the lower hill terraces, inside spaces from the main complexes such as building CD, E, F, and Area 8, samples from areas with possible ritual function or related to water management such as Area 16, samples from the main processional road leading to the central court, and samples related to possible destructive events such as burnt sediments or volcanic ash connected to the Santorini eruption.

This contribution mainly focuses on the behavioral and technological information that can be identified through the study of the microstratigraphy of surfaces. Micromorphology analysis at Sissi provided information on the use of different

surfaces and, in some areas, identified floor sequences, allowing a better understanding of behavior in both a spatial and a diachronic way. Micromorphological study was complemented by FTIR analysis that focused on the study of calcium carbonates. This technique identified the technological processes related to the making of the plaster used to build some of the surfaces at Sissi and also provided data on the source of the raw materials incorporated into the general sediments across the site.

The Sissi Preservation Program: An Integrated and Participatory Approach for a Stronger Synergy between Archaeology, Preservation, and Presentation

Thérèse Claeys, Université catholique de Louvain

Culminating at about 25 m above sea level, the Kephali hill is located east of the modern village of Sissi in Crete. The coastal hill has revealed the remains of an organized settlement occupied throughout the Minoan period, between ca. 2600 to 1200 B.C.E. Considering the fragility of the Minoan architecture combined with the peculiar coastal environmental constraints accelerating erosion processes and increasing flooding risks, the urgent duty of preserving the uncovered ruins in Sissi soon arose. Alongside these short-term preservation imperatives, both presentation and awareness-raising strategies also had to be reflected upon, due to the limited visibility of the remains and the systematic retrieval of moveable finds, in order to ensure the long-term safeguarding of the site. This paper first proposes a retrospective appraisal of the solutions undertaken so far within the Sissi Preservation Program to tackle the aforementioned three challenging axioms (preservation, presentation, education). Since the efficiency of the preservation measures can only be assessed in the long run, systematic and reliable methods will have to be adopted to conduct such assessments. The potentialities of Geographical Information Systems (GIS) have already been applied for more than two decades now in the field of archaeological research and cultural heritage management. In addition to examining the obvious benefits of GIS for future preservation monitoring purposes at Sissi, the second section of this paper intends to present an on-going pilot study demonstrating how GIS can also be used in innovative and participative ways, by processing visitors' spatial behavior data recorded with GPS tracks, to inform decision-making processes for the presentation of the Sissi remains. Building upon the Sissi case study, this paper eventually seeks to emphasize the role of GIS as a digital solution for fostering the collaboration between the different specialists involved in the valorization of the Minoan heritage.

Session 3F: Colloquium

Ancient Pottery: Shapes and Contexts

Sponsored by the Ancient Figure-Decorated Pottery Interest Group

Organizers: *Mark D. Stansbury-O'Donnell*, University of St. Thomas, and *David Saunders*, Getty Museum

Colloquium Overview Statement

The Ancient Figure-Decorated Pottery Interest Group proposes a colloquium that explores the roles that shape or function play in assemblages of ancient pottery and other finds from a variety of contexts. For example, a tomb containing fifty objects might have five figure-decorated pots of different fabrics, prompting discussion concerning the relationship of shape, function, and iconography with non-figured pots and associated finds. Shape can also convey indications of ethnicity and target markets, gender, and ritual, among other possibilities. Spanning production, transport and trade, consumption and reuse, the papers demonstrate what can be gained by considering the relationship of figure-decorated vases to plain and black-gloss wares.

The first papers in the colloquium focus on unusual shapes. Paper #1 examines the pointed amphora, a shape derived from transport amphora that is only rarely decorated in black- or red-figure. All of the recorded findspots are in Etruria or France, so these vessels could be understood in terms of elite exchange between Athens and the western Mediterranean. Paper #2 focuses on the lidded krater, an unusual version of the shape found mostly outside of Attic black and red-figure production that provides a different viewing aspect as an enclosed object.

Other papers focus on the role of individual shapes in specific regions. Paper #3 notes the concentration of Attic *hydriai* at Vulci and suggests from an examination of select assemblages that the vases served locally in the *culto dell'acqua* and the heroization of the dead. Paper #4 considers Apulian *situlae* as funerary vessels used in rituals at *naiskoi* and graves, and emphasizes the vessel's Dionysiac associations that reflect native Italic beliefs and ritual uses.

The final papers take a more longitudinal view of the production and consumption of different shapes. Paper #5 explores the eclectic and novel forms developed in Athens by the Nikosthenic workshop for the Etruscan market, especially hybrid shapes that combine elements from more standard versions. Paper #6 examines the import of Attic figured pottery in Spain and its deposition in a survey of material from three cemeteries, looking for patterns in the selection of figured and non-figured shapes and the social status of the deceased. Paper #7 take a similar approach, looking at the deposition of red and black-figure *lekythoi* in fifth-century B.C.E. assemblages and funerary rituals.

Athenian Black-figure and Red-figure Pointed Amphoras: New Considerations on their Shape, Decoration, and Context

Cristiana Zaccagnino, Queen's University

Less than twenty Athenian figured pointed amphoras are attested, dating to the late-sixth century to mid-fifth century B.C.E. in both black and red-figure. There

is strong variability in the shape of these vases, even those produced in the same workshop, making them almost unique specimens. Their shape is clearly modeled after transport amphoras of the same period. The provenance is known, or at least probable, for only a few, and it is remarkable that they are all from Etruria (six from Vulci, one from Dolciano), except one from Bourges.

Along with Dionysiac imagery, their decoration includes Herakles on all but one of the black-figure examples, while on the red-figure specimens there are multiple representations of Theseus, Centauromachies, and Boreas abducting Oreithyia. Previous studies have convincingly suggested that those myths were especially relevant to members of the Athenian aristocracy and in particular the groups that supported Kimon.

This paper aims to demonstrate that Athenian figured pointed amphoras were produced in small numbers as special commissions for members of the aristocracy. In addition to their content, arguably high-quality wine, these luxury versions of regular wine shipping containers may have been intended to be a gift to guest-friends and members of their broad elite network. A closer examination of the shape of those amphoras will allow the identification of the specific models of each variant, their area of production and circulation, and their likely content. The reconstruction of their tomb assemblages, which is possible in some cases, will allow us to study their iconographies not in isolation but in connection to their final context of use. The study of the end users of these vases may contribute to a fuller understanding of their function as a means of connection between the Athenian elites and their non-Greek counterparts.

Lidded Kraters

Jasper Gaunt, Independent Scholar

Mixing vessels of the archaic and classical periods were characteristically conceived with wide mouths that facilitated replenishing with quantities of wine and water, stirring it up and drawing it off. Yet lids for kraters are in fact encountered from time to time. The proto-Attic *skyphos* kraters that start the series might be considered different since their function may have been primarily funerary, but the tradition is then taken up vigorously in the later sixth century as a matter of routine by the Chalcidian black-figure Inscriptions Painter for kraters of Chalcidian shape. In the fifth-century Athenian *kerameikos*, we encounter fragments of a footed *dinos* by the Copenhagen Painter and its lid by the Syriskos Painter. In the fourth century, Apulian *dinoi* are quite often equipped with lids tipped with floral finials. Perhaps more interestingly, a volute-krater attributed to the Black Fury Painter with Orestes at Delphi, now in Naples, has a tall, conical lid of very much the sort depicted on much later Arretine pottery and in a more diffuse way on Roman cinerary urns. Parallel to these archaic and classical series run bronze versions. The Hellenistic *lebes* in the Getty and fragments of another from the Mahdia wreck are two examples with proper hinged lids.

The significance of the presence or absence of a lid is to some extent aesthetic, for it clearly influences the architectural appearance of a vessel. The surfaces of the lids, furthermore, offer opportunities for another layer in narrative and decorative strategy. In the case of mixing vessels, however, there may also be social aspects of

the symposium to consider. The strainer on the great krater from Vix, for instance, would have required at least two people to set in place or remove.

Athenian *Hydriai* in Etruscan Vulci: Shape, Image, Assemblage

Sheramy D. Bundrick, University of South Florida St. Petersburg

Scores of Attic *hydriai* were exported to Etruria in the last decades of the sixth century B.C.E., especially black-figure *hydriai* of the canonical form. Vulci appears to have been a predominant destination for these vases, with hundreds discovered in nineteenth-century explorations of the *necropoleis*, and far fewer, for instance, at Caere or Tarquinia. This suggests a strong local preference, although the lack of findspot documentation for most *hydriai* makes it difficult to evaluate the situation fully.

A handful of documented assemblages do exist from Vulci, and I use three—all from single-chamber tombs in the Osteria necropolis—to advance hypotheses about Attic *hydriai* in Vulcian contexts. Tomb 50 included a *hydria* attributed to the Antimenes Painter with chariot and combat scenes; the Tomb of the Kottabos (Tomb A9/1998), a *hydria* attributed to the Priam Painter with Herakles retrieving Kerberos and chariot scene; and in the Tomb of the Necklace (Tomb A7/1998), another *hydria* attributed to the Priam Painter, with fountain-house scene and Peleus wrestling Thetis. The recent discovery of the Tombs of the Kottabos and the Necklace allows firm identification of a male and female deceased respectively, while grave goods in Tomb 50 (discovered in 1931) suggest a male deceased. These assemblages encourage discussion of gender as well as the interplay of shapes and iconographies in service of Vulcian customs and worldview. I suggest that local reverence for the so-called *culto dell'acqua* explains the popularity of figured *hydriai* for deposition, and that subjects read by local viewers as referencing the passage and even heroization of the deceased were most likely to be chosen. Local tastes in turn impacted production by Kerameikos workshops: the Priam Painter *hydriai* carry the same trademark under their feet (Johnston's type 13E), raising questions about local preferences communicated by traders back to Athens.

Bacchic Buckets: *Situlae* in Magna Graecia

Keely Elizabeth Heuer, State University of New York at New Paltz

One of the most common vessels to appear on South Italian vases is the *situla* (wine bucket), which can be found in Dionysian scenes on red-figure wares of Magna Graecia and Sicily. The shape's dual functions as a means of transporting undiluted wine and serving the blended beverage from a krater is repeatedly illustrated in symposia attended by mortals and by Dionysos and his retinue. However, the *situla* is frequently carried by Italic figures, an important iconographic clue that the wine god's cult also played a substantial role in the beliefs of the indigenous population. Noteworthy too is the regularity of *situlae* carried by women in Dionysian revels and scenes of native peoples alike, perhaps indicating that the female role in ritualized drinking and dining in Magna Graecia differed significantly from what we see on mainland Greek vases.

Despite the shape's wide geographical use in South Italian vase-painting, terracotta versions of the container were only made in the region of Apulia, with rare exceptions elsewhere. Less than one hundred pieces are listed in Trendall's publications, a surprising statistic given the popularity of other vase types associated with communal wine consumption, particularly kraters. Terracotta *situlae* are overwhelmingly decorated with Dionysian imagery, but other mythological subjects painted on them consistently revolve around the theme of triumph, whether representations of Nike or narratives involving monster slayers and romantic conquests. Thus, when *situlae* appear in funerary scenes in South Italian vase-painting, both inside the *naiskoi* and as an offering by those around the grave, the shape might not only be a reference to Dionysos and wine consumption, but also carry connotations of victory over death. By considering the *situla*'s manufacture in a wide variety of media, this paper explores the practical and symbolic roles of the shape in Magna Graecia as a "prestige" vessel with eschatological associations.

The Body Eclectic: Nikosthenes and Attic Shape Novelty in Etruria

Jennifer S. Tafe, Boston University

Although renowned for its use of Etruscan shapes, the Nikosthenes shop did not simply copy Etruscan forms. The notable eclecticism of many Nikosthenic vessels suggests an intentional novelty in the approach to potting inspired by a combination of target consumer and a flair for experimentation. This paper takes a new approach to studying Attic shape novelty in the Etruscan context, using some of the inventive vases of the Nikosthenes workshop as a model.

While vase painting scholarship tends to emphasize the distinctiveness of the Nikosthenes shop for its borrowing of shape types and focus on the export market, it is important to highlight its preoccupation with originality for its product identity, as well. Vases produced by Nikosthenes are under-examined for the innumerable ways an Athenian artist modified and melded both forms and painting techniques as a way of appealing and responding to a growing overseas audience. Furthermore, the Etruscan consumer as an impetus for experimenting with blending forms is often understated.

In this paper, I will argue that Nikosthenes's use of Etruscan forms extends beyond the well-known Nikosthenic amphora. Found in Vulci during the Bonaparte excavations, a famous *hydria* now in the Petit Palais blends together elements of the Attic *hydria* and the *oinochos*, and also has features typical of a *kyathos*, another Etruscan vessel shape common in *bucchero* that Nikosthenes introduced to the Attic repertoire. With additional decorative attributes reminiscent of metal embellishments, this vase embodies an eclectic "shape-shifting" novelty prioritized by the workshop. This paper will examine three other vases of complex form and decoration attributed to Nikosthenes in order to highlight the shop's largely unrecognized eclectic aesthetic and its multifarious responses to foreign markets. These vessels provide an opportunity for the subtler ways we can study the impact of the Etruscan market in the sixth century.

Athenian Images for Whom? A View from the Iberian Peninsula

Diana Rodríguez Pérez, Wolfson College, University of Oxford

Athenian vases started to arrive in the Iberian Peninsula in significant numbers in the course of the fifth century B.C.E., with a dramatic increase of imports during the fourth century. Both black-glazed pottery and figured-decorated vases were exported, the first being largely more popular in all the Iberian regions but one: Eastern Andalusia. Earlier scholarship has explored the apparent preference of the native communities of that area for vases with images and a possible case of *interpretatio iberica* has been argued whereby some repetitive Athenian images like the youth in himation, Dionysian scenes, etc., were particularly favored by locals because they could be assimilated with concepts known in Iberian society.

We propose now to look further into this question and assess the reasons behind the deposition of figured-decorated vases vs. black-glaze ones within that particular region. Why did some tombs receive red-figure vases and other did not? Can meaningful patterns be detected? What is the relationship of the Athenian vases with the remaining items of the assemblages? What is the ratio between figured and black-glaze vases in the area? Were figured-decorated vases (presumably more expensive) used in a diacritical way to signal a special status of the deceased? We will explore these questions taking as case studies three *necropoleis* of the area: Galera and Baza, in the province of Granada, and Castellones de Céal, in Jaén.

The Red or the Black? The Deposition of *Lekythoi* in Athens and Abroad

Amy C. Smith, Ure Museum of Greek Archaeology, University of Reading, and Katerina Volioti, University of Roehampton

We consider here the inclusion of red-figure *lekythoi* in burial assemblages with all-black ceramics, at Athens and abroad. Red-figure *lekythoi*, both cylindrical and globular shapes, appear both as singletons and as pairs. Small and hastily decorated *lekythoi*, usually described as second-rate pieces, have been discussed primarily in terms of gender, because of their decoration with images inspired by the world of women.

After preliminary comments regarding trends in the funerary uses of red-figure *lekythoi*, we introduce case studies from across the Greek world, assemblages that include multiple all-black ceramics. We approach each burial assemblage as a social occasion that provided a viewing context in which we must examine the visual impact of each group of pots. How were they arranged and deposited? How did red-figured *lekythoi* contrast visually against the black background of other pots? Did the all-black pots act as points of contrast because their technique of decoration was different? Such factors may have encouraged viewers to think about techniques, labor input, and economic value of ceramics.

The contrast with all-black wares in the same assemblage may have helped to focus visual perception on the figural decoration. What then of the consumption of this iconography? Was it difficult to comprehend and thus “consume,” for example, in the case of small (globular) *lekythoi* whose figures lacked detail? Did viewers observe the static/motionless appearance of these human bodies against their pots’ black background? Through our investigation of compositions, whether

simple or complex, repetitive or not, used in such contexts, therefore, we construct an argument about how the viewing context challenged its ancient consumers who had varying degrees of familiarity with vase iconography. Our discussion of the viewing context of each assemblage emphasizes consumers' choices regarding regimes of value, vis-à-vis economics, gender, and perhaps ethnic distinctions.

Session 3G: Open Session Objects, Trade, and Daily Life

Recycle, Repair, Reuse: The Long Lives of *Pithoi* in Third Century B.C.E. Morgantina

Caroline Cheung, Princeton University, *Sarah Johnson*, Princeton University, and *Leina Thurn*, Princeton University

Large ceramic containers such as *pithoi* and *dolia* were crucial in antiquity for the storage of different foods and were installed in houses, storerooms, farms, and commercial spaces. In a time without refrigeration, *pithoi* and *dolia* protected their contents from pests and provided a relatively stable, cool, and dry environment for foods such as wine, oil, grains, and legumes. Because these pots were essential, expensive to manufacture, and difficult to transport, people attempted to prolong their use and value; when the vessels broke, they were often repaired or reused, sometimes several times across the life of the vessel. During their 2013–2018 seasons, the American Excavations at Morgantina: Contrada Agnese Project (AEM:CAP) recovered over five tons of *pithoi* from a Hellenistic house (ca. 270–200 B.C.E.), located on the western edge of the ancient city of Morgantina. While some of these vessels were found in their primary storage context, the majority were found in secondary uses, such as tubes, drains, or bedding material for floors. The vessels from Morgantina exhibit a variety of repair methods, and with over 250 individual repairs documented, some of which have not been observed at other ancient sites, we are afforded a unique opportunity to study the different skill sets and technologies drawn upon to repair these containers. In this paper we present the preliminary results of our study of these vessels. We discuss the *pithoi*'s production, morphology, general sizes, installation, uses, repurposing, and repairs. Thanks to the quantity and variety of *pithoi* and *pithos* repairs from a single structure in Morgantina, the preliminary results of our study shed light on third-century foodways, commercial trade, and domestic technology.

Coins and Actors: The Application of Actor-Network Theory to the Coins from Cosa's Bath Complex

Melissa L. Ludke, Florida State University

During the most recent excavations of the Roman bath complex at the site of Cosa, approximately fifty-four coins, dating from the mid-Republican to Medieval periods, were discovered. This paper, derived from previous research regarding coins in bath complexes, including the bath at Cosa, explores the contextual relationships of the coins found in Cosa's bath complex and, through a

close examination of two to three specific coins, the heterogeneous networks coinage gathers, specifically regarding social activities in bath complexes. The project, which originally developed as a thought experiment, applies a contextual analysis to the coinage from Cosa's bath complex, and tests to what extent this approach aids in the interpretation of find spots. In applying a contextual-based analysis, the paper seeks what new perspectives can be drawn in understanding the relationship between small finds and the areas in which they are found. The study also explores what types of connections exist between coins and their archaeological locations, as well as the types of connections that exist in relation to the bath complex and the coin itself, which is why the study is limited to only a few coins from the bath, rather than the collective whole. Additionally, the nature of materiality is explored in regard to how coins and other objects pertain to a larger social experience, as well as how they connect to the flow of water, traffic patterns, interaction with humanity, and other artifacts, especially if illegible. In the overall analysis that is applied to this paper, the broader question examines how well this style of case study works within a bath complex and in utilizing coins in the field; for coins do provide a wealth of information and offer new perspectives to archaeological interpretation.

Morphology and Trade: An investigation of African Export Amphoras in the Mid-Roman Empire

Karl Racine, Trent University

Between the second and fourth centuries C.E., North Africa saw an economic boom that propelled its production and trade of consumer goods (olive oil, salted fish products, wine, fruit, grain, and ceramics) across the western part of the Mediterranean (e.g., Italy, Spain, Tunisia, Libya) during the Roman Empire (cf. Mattingly 1997; Brun 2004; Hobson 2015). Olive oil, wine, fruit and salted fish products were exported via maritime routes in ceramic vessels called amphoras. The importance and popularity of the variously known *Africana Grande* or *Africana II* type of amphoras is evident through its wide distribution across the western Mediterranean. Large scale production and exportation of this vessel type occurred during the mid-second and early-fourth century C.E. (i.e., Keay 1984; Bonifay 2004; Stone et al. 2011; Nacef 2015). Ceramicists recognize this and have attempted to identify meaningful subtypes based on body type and shape size. Currently, the *Africana IIA* (Afr. IIA) amphora, a subtype of this series, is recognized as having different rim morphologies but research on the subject is limited with contemporary work focusing on the body of the vessel rather than the rim variations. Additionally, stamps, *dipinti*, and graffiti on this vessel are attested by Mattingly et al. (*JRA* suppl. [2011] 205–271) but only on a small portion of assemblages presumably indicating quality control of select batches during firing.

In this paper, I propose that the Afr. IIA amphora demonstrates a relationship between rim morphology, distribution mechanisms and centers of consumption. Using information gathered from extensively published excavation reports, I posit with my preliminary results, that the rim variations for this vessel conveys meaning about the producers of these amphoras, the intended consumers (e.g., private

individuals vs. military or other state-related bodies), the distribution routes, the sites of consumption and/or are reflective of a chronological sequence.

Local Ceramics and Urban Change at Salapia (Fourth–Seventh Century C.E.): An Assessment of Painted Common Ware Assemblages in their Lived Contexts

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

Since 2014, the excavations at Salapia, on Puglia's southern Adriatic coast, have revealed the remains of a Late Antique town and early medieval reoccupation, dated from the fourth to eighth centuries C.E. Over this timeframe, the character of the town changed, with buildings of the Roman phase repurposed for huts made of organic materials. The residents of Salapia were negotiating new ways of inhabiting the urban fabric that merit further investigation. To deepen the study of these spatial dynamics, I add an analysis of the common ware ceramics recovered from contexts dated to these centuries, including specifically assemblages from a fifth-century *taberna*, three sixth-century *middens*, and the habitation and abandonment contexts from the seventh century, each representative of a discrete phase of occupation of the site. A comparison of the ware forms demonstrates qualitative and quantitative consistency over time: large basins, pitchers, table amphorae, small jars, and bowls made up the "kit" of table service and storage, often decorated with red paint, haphazardly applied. The standard of production also remained the same. That these wares were produced locally (confirmed by chemical analysis), by artisans who were possibly community members, allowed them to reflect the tastes and needs of Salapia's inhabitants. Although scholars studying similar common wares in other Apulian contexts have argued for variations especially in the seventh century, connected to the arrival of the Lombards, Salapia's table ceramics speak to continuity, even across the decades when southern Italy's political circumstances were in flux. Both the production and use of these wares perhaps attest to the solidity of social ties, marked by a shared interest in sustaining artisans, and the experience of using the same vessels at table on a daily basis, even as the settlement took on an evolving appearance from one century to the next.

Decoding Daily Life in Byzantine and Frankish Thebes: New Results from the Ismenion Hill Excavations

Katherine B. Harrington, Florida State University

Thebes has been long known for its role in ancient mythology, its Bronze Age remains, and its political strength in the late Classical period. Yet Medieval Thebes was a significant urban center as well. When traveler Benjamin of Tudela visited Thebes in the twelfth century, he found a well-established center of industry, one of the biggest producers of silk in the Byzantine Empire. In the early-thirteenth century, Thebes came under Frankish rule but maintained political and commercial importance in this volatile period.

Recent excavation of the Ismenion Hill sheds new light on daily life in this dynamic period of Theban history. This paper presents the preliminary results of study of a twelfth to fourteenth century neighborhood excavated by the Thebes

Synergasia Excavation Project between 2011 and 2016. These remains attest to a late stage in the diachronic occupation of the hill, which also included a Bronze Age cemetery, an Archaic and Classical sanctuary of Apollo, and a Late Antique cemetery.

At least three phases of Byzantine and Frankish occupation were concentrated to the south and east of the temple foundations, including several buildings, a kiln, and a cistern. Though floor surfaces were rarely preserved, life in the neighborhood can be explored through the contents of numerous *bothroi*, pits used for waste disposal. Fineware from the *bothroi* included both local products and imports from northern Greece, Italy, and beyond. Other artifacts from these rubbish dumps included gaming boards, personal adornments, tools, and food waste. Comparing the contents of the sixteen excavated *bothroi* allows us to trace the spatial and chronological development of the settlement and to investigate the local economy and quality of life. This was a diverse industrial and residential neighborhood, where residents had varied dietary habits and access to a range of local and imported objects.

The Byzantine Economy of Dhiban, Jordan

Melissa Kutner, University of Maryland, Baltimore County

The Dhiban Excavation and Development Project, under the auspices of the Department of Antiquities of Jordan, investigates the occupation of Tall Dhiban from the Iron Age through the Mamluk period. Excavations have revealed a substantial Byzantine presence—in fact, the site reached its largest extent at this time. In this talk, I discuss the results of the 2017 and 2019 seasons investigating a large Byzantine building that was destroyed by fire and/or earthquake in the late sixth century C.E. During the 2019 season, we reached the floor of this building, and while earlier phases as well as additional rooms may be investigated in future seasons, we have a clear picture of the rich collapse as well as at least one phase of post-collapse reuse. Together, these phases contribute to an understanding of the Late Antique economy of Dhiban as well as the site's long-term pattern of expansion, retraction, and resilience.

The Byzantine building contributes strongly to an understanding of economic forces at the site, while the preservation of in situ collapse allows for glimpses of domestic spatial organization. Archaeobotanical evidence from storage jars suggests agricultural ties to a wider imperial economy, especially through the presence of wine and wheat. However, olives, another familiar component of the imperial economy, are absent. Meanwhile, the presence of bronze coins, including very worn tiny coins called *minimi*, suggests local, everyday exchange. While analysis of artifacts remains preliminary, decorative objects (including lamps, flasks, glass vessels, and tools) suggest connections to wider cultural and religious networks. Finally, the 2019 season has clarified a post-collapse phase of reuse dating to the late Byzantine or early Islamic period, indicating a more complex timeline for the Late Antique occupation at Dhiban than was at first assumed, as well as a pattern of resilience and rebuilding in response to building destruction

Session 3H: Joint AIA/SCS Colloquium

Teaching with Coins: Coins as Tools for Thinking about the Ancient World

Organizer: *Roberta L. Stewart*, Dartmouth College

Colloquium Overview Statement

Coins have a great potential as a medium by which students can learn about a range of subjects concerning the ancient world. This panel is intended as an interdisciplinary discussion, drawing together curatorial studies, digital humanities, conservation, ancient history, and archaeology, to examine the various means of using coins as a primary source for our knowledge of the ancient world. In scholarly and educational inquiry that is increasingly interdisciplinary, coins can be overlooked as primary sources, even though many students may have access to physical coins in university collections, and all students have access to specialized digital databases, which are steadily increasing in number and in the number of coins that are included in the databases.

The panel presenters concentrate on the combination of the physical coins and digital databases to help students better understand such problems as civic identity, how and why rulers enacted economic reforms, and the spread of religious iconography. Other panelists address educational theory, in developing peer-to-peer projects, from elementary to a serious layperson audience, while learning how to use technical vocabulary and conventions in designing a digital module as an educational tool. Curatorial methodology is the focus of another paper, as the curator uses coins to appeal to a museum-going public, both in the physical design and layout of a display and in digital supplementary education.

All of the papers are tightly bound to the topic and address an issue that has been neglected in the study of coins, although theory and anecdotal evidence point to the importance of a physical object as the starting place of study, from which the student may learn critical thinking in forming questions about the coin and its use in its culture. “Beyond the First Thrill” speaks from long experience in a variety of undergraduate classroom settings to promote student interest in learning about the past by inviting the students to think about coins in a variety of ways, from iconographical to economic indicators. “Learning by Teaching” expands the means of involving undergraduates in the study of coins by having them learn how to create digital modules, developing content, instructor notes, lesson plans and the like. “Reading Coins and Stories” focuses on nurturing interest in the ancient world for grades 5 to 8 by using coins in lessons on literacy, and individual thinking and learning. “Teaching with Coins at the MFA, Boston” has a slightly different aim, in having museum goers—from elementary school to mature adults—discover and explore how coins can illuminate various aspects of the ancient world, as presented in a museum gallery. “Coins as a Teaching Tool” presents the use of coins for a more specialized audience of student conservators, who are given hands-on experience with the coins, but who are also asked to obtain an understanding of their historical and economic significance. The last presentation, “Federalism and Ancient Greek Coins,” again uses the coins to have students engage in active learning about federal states, a topic of recent interest

in scholarship. Coins are used to make theoretical concepts more concrete, as students explore iconography and weight standards.

Learning by Teaching with Roman Coins

Gwynnaeth McIntyre, University of Otago

Since 2015, the student-run, digital humanities project, "From Stone to Screen," has been developing open-access teaching modules for the Roman coin collection housed in the Department of Classical, Near Eastern, and Religious Studies at the University of British Columbia. Designed by students for students, these modules allow students to familiarize themselves with numismatic conventions, online resources, and methodologies through peer-teaching. Students worked closely with faculty in order to situate these modules within current teaching practice. This collaboration created opportunities for academic mentoring and professional development for undergraduate and graduate students.

This paper discusses the creation of the "Visual Association in Imperial Promotion" module and provides suggestions for the development of similar peer-teaching projects. It was created in response to the student's own learning experience from the "Introduction to Numismatics" module. Using this previous module as a template, the student then developed new content including instructor notes, lesson plan, PowerPoint slides, handouts, worksheets, and answer keys. This module increases access to a physical collection largely inaccessible to students and also allows students to learn about the coins from their peers, enriching their university experience. As one student responded in their feedback, "For me, having a student lecture is quite exciting since it shows the kinds of opportunities available for undergraduates (like me)."

These coin modules provide a unique opportunity for students to recontextualize what they have learned and to communicate that knowledge to their peers. It encourages students to develop their own projects, create learning content, and expand their understanding of particular fields of interest. Giving students the opportunity to teach allows them to bring their own experiences, approaches, and methods to the study of a collection. These types of experiential learning opportunities make departmental and museum collections more accessible allowing students to forge their own connections to the ancient world.

Reading Coins and Stories: Strengthening Student Literacy through Numismatic Concepts

Katherine Petrole, The Parthenon, Centennial Park

This talk will share the successes and challenges of an educational program that introduces ancient Greece to students in grades 5 to 8 through connecting ancient, modern, and fictional coins from a familiar story: "Percy Jackson and the Lightning Thief" (Riordan 2005). The program is freely available as an online resource, making it accessible, replicable, and adaptable for use in museums, academic institutions, and excavations worldwide. The 2005 book and subsequent book and film series ignited an interest in Greek mythology in American students;

at the Parthenon in Nashville, Tennessee, visitation to the museum spiked after the 2010 release of the film and the movie props on display remain a museum highlight for the youngest visitors to this day. As a result, the Parthenon initiated an educational program incorporating the fictional coins in “Percy Jackson and the Lightning Thief” in an effort to increase literacy and learning in students grades 5 to 8. Specifically, the program models numismatic concepts to show how “reading” is more than just seeing words on a page—you read an entire coin to unlock clues about the people and places it represents. In this way, the program provides a powerful learning experience that connects students with the past by using replicas and images of primary sources in order to learn about the ancient world. Students progress from group to individual thinking and learning as they see and analyze examples of fictional golden drachmas (the size of a Girl Scout cookie!), American quarters, and various ancient Greek coins from the numismatic collections of Corinth Excavations and the Athenian Agora Excavations. Through this educational experience, students will understand that reading the whole picture unlocks clues to their favorite stories, with examples to connect the past and present through numismatics.

Teaching with Coins at the MFA Boston

Phoebe Segal, Museum of Fine Arts, Boston

In 2012, the Museum of Fine Arts, Boston opened the first gallery devoted to ancient Greek and Roman coinage in a US art museum. Given its location within a public institution, the gallery, known as the Michael C. Ruetters Ancient Coin Gallery (“coin gallery” for short), treats the general public as its student population, welcoming those as young schoolchildren and high school students all the way up to learned scholars. This paper aims to share the strategies employed in the coin gallery with the academic community in the belief that a dialogue between those teaching with coins in museums and institutions of higher learning can only strengthen outcomes in both.

The paper begins with an introduction to the MFA’s coin collection, which dates back to the early years of the museum (founded in 1870) and numbers approximately 8,000 coins. The need for the gallery, with its state-of-the-art casework with custom-designed magnifying instruments and lighting, and the curatorial and educational goals for it will be explained. The “big idea” for the gallery—the notion that coins are miniature masterpieces and the emphasis on coins as works of Greek and Roman art and their relationship to works of art in other media—will be the central focus of the paper. The interpretive strategy of the gallery blends thematic and chronological approaches—a balancing act evident in cases entitled “Metal into Money,” “Money into Art,” as well as those devoted to portraiture and mythology, on the one hand, and cases in which the best specimens of Greek and Roman coins are exhibited, on the other hand. The use of technology in the form of iPads with the first-ever MFA app (“MFA Coins”), as well as the process of developing such an app, will shed light on the benefits of technology in teaching with coins. Finally, a summary of the overwhelmingly positive responses to the gallery will be presented.

Coins as a Teaching Tool: An Experience of Integration of Numismatics and Conservation

Christiana Zaccagnino, Queens University at Kingston

Courses in numismatics are almost not existent in North American university curricula. Coins are shown in courses of classical art and history especially as illustrations of the iconography of statue types, of monuments, and of the portraits of ancient rulers, but little attention is paid to the technical aspects of coin production and to the purchasing power of the denominations. Several North American university museums own coin collections, which are also used as a teaching tool, but in the majority of cases students do not have direct access to the artifacts. A collection of ancient artifacts including coins is also owned by the Department of Classics and the Art Conservation program at my university. What makes this collection different is that it does not belong to a museum and it was acquired with an educational purpose: the ancient artifacts are to be used as a teaching tool for students from both programs. The collection is a diverse assemblage of unsorted artifacts, often fragmentary and sometimes in very poor condition, all without any information about the original context or prior treatments. Among them are more than 600 Greek and Roman coins, which have been so far neglected. Recently a new project has started which directly involves students in the study of the coin collection. Students from Classics and Art Conservation contribute with their specific background and skills, working together on the same items and teaching each other in a stimulating environment. Art Conservation students research alloy composition, manufacturing techniques, old restoration and cleaning methods, and perform conservation treatments according to current standards, while their Classics peers identify the coins, provide historical context and study their economic significance. The collaboration between the two programs makes the experience very formative since students become acquainted with the principles and methods of both disciplines.

Federalism and Ancient Greek Coins

Eliza Gettel, Harvard University

This paper examines the potential of coins for teaching about federalism in undergraduate ancient Greek history courses. The *koinon*, or 'federal state,' was a ubiquitous state structure of Greek history, which has received much scholarly attention recently (e.g., Beck and Funke; Mackil). However, despite the ubiquity of Greek federal states, they play a small or nonexistent role in most ancient Greek history courses at the undergraduate level. Much of the scholarship on the *koinon* is aimed at a specialist audience and requires knowledge of Greek history outside of Athens and Sparta. Coins, however, offer approachable opportunities for introducing students to questions and debates about Greek federalism.

Students, especially in American and European contexts, are used to handling federal coinages in their own life. Therefore, instructors can draw parallels between coins of ancient federal states, especially those of the Achaean League or Arcadian League, and US state quarters or euro coins to introduce the concept of federalism in ancient Greek worlds. For instance, looking at a coin of the Achaean

League with a federal monogram as well as symbols related to a member *polis* (e.g., a dolphin for Patras) prompts students to raise questions about the balance of power between federal institutions and member states. Through such coins, therefore, students can engage in a debate that has concerned scholars of *koina* without having to know ancient Greek or having detailed knowledge about a specific region of the Greek mainland.

In addition to outlining some of the debates revolving around Greek federalism that coins can raise, the paper will introduce attendees to some concrete strategies and resources for teaching with ancient federal coins. It is not always possible to teach with physical coins, and so this paper will conclude with suggestions for interactive activities that bring these coins into the classroom virtually.

Session 3: Open Session **Roman and Late Antique Sanctuaries**

The Temple of Jupiter at Pompeii Reveals its Secrets

John J. Dobbins, University of Virginia, and *James G. Cooper*, Pennsylvania State University

The Temple of Jupiter at Pompeii is a problematical monument, not readily surrendering its secrets. Key problems are date (pre-Roman or Roman), building module (Oscan or Roman foot), construction phases, and discordance between the podium vaults and the superstructure that may indicate an earlier phase to the temple. Also problematical is the history of scholarship. The most influential person for the study of the temple in the twenty-first century is Amedeo Maiuri. This is ironic because Maiuri died in 1963. No matter, two recent studies of the temple (Gasparini 2014; Lippolis 2016) start with Maiuri, and unsurprisingly, end with Maiuri, confirming the central points of his 1942 publications.

The Pompeii Forum Project approaches the problem differently. We start with the temple itself, and unsurprisingly, we do not end with Maiuri. We end with the prescient and then-heretical assessment of L. Richardson, Jr., in *Pompeii: An Architectural History* (1988), who proclaims, “The building history is fairly easily straightened out once Maiuri’s early date for the original construction is eliminated. The temple was built by the Roman colony” (p. 144). Richardson was on target, but his text provides no supporting evidence. Thirty-two years later the Pompeii Forum Project presents evidence gathered through onsite investigation, numerous measurements, a reinterpretation of physical evidence, and a recognition of the Classical design principles employed by the architect, all toward the goal of understanding and explicating Pompeii’s most important temple. That the architect used the Roman foot as a module in this temple’s design is clear from our measurements. The discordance reflects a design change after the vaults had been constructed, not an earlier phase. Working backwards from the physical evidence, we extrapolate the design process and identify the *pronaos* as Vitruvian pycnostyle (*De arch.* 3.3.2).

A New Date for the Sanctuary of Venus in Pompeii

Ilaria Battiloro, Mount Allison University, *Marcello Mogetta*, University of Missouri, and *Francesco Muscolino*, Parco Archeologico di Pompei

The dating of the temple complex dedicated to the patron deity of Roman Pompeii has been the subject of considerable debate in recent years, with important implications for the overall interpretation of the monument and of its historical and cultural significance. In particular, investigations carried out at the site between 2004 and 2007 have challenged the conventional chronology, which ascribes the monumentalization of the sacred site to the early phase of the colony of 80 B.C.E. The poorly published results would seem to place the earliest standing remains to the second half of the second century B.C.E., making the case for the existence of a predecessor of the sanctuary, and thus for greater continuity from the Late Samnite period.

Three consecutive seasons of fieldwork and study by the Venus Pompeiana Project have produced a critical mass of data that prompts a recasting of the building history of the monument and the broader area. Extensive excavation underneath the eastern court and portico of the sanctuary has revealed conspicuous evidence of architecture and deposits from second century B.C.E., which testify to a radically different spatial organization of the neighborhood prior to the establishment of the sanctuary. An alley branching off from Via Marina and continuing in a southerly direction towards the fortifications originally divided the area into two city-blocks. On either side of this street, remains of structures of probable domestic and commercial function have been exposed.

In 2019, a cistern associated with one of the Late Samnite buildings has been explored. At least two levels of fills have been identified, the upper one of which can be clearly linked with the demolition and obliteration of the structures that stood in the area in order to make room for the first temple. Diagnostic finds from the top layers provide a terminus post quem for the erection of the monumental sanctuary around 30 B.C.E., which is considerably later than normally assumed, revolutionizing our understanding of the context. The new date appears consistent with the extant architectural decoration as well as with our reassessment of the podium and cella architecture, which only shows one main construction phase before the 62 C.E. earthquake.

Fictiles Deae: A New Study of the Statues from a Suburban Sanctuary in Pompeii.

Giulia Vannucci, Scuola Normale Superiore

The object of my paper is a group of three terracotta female statues found in 1960 during the excavation of the suburban sanctuary of Fondo Iozzino in Pompeii. Although these statues represent one of the few examples of terracotta statues found in situ within a sacred space, the scholars have devoted little attention to them and one of the statues still today is almost unpublished. Two of the statues are over life-size, even if one is preserved only in its torso. They both represent a standing female figure wearing a light himation tightly fitted to the body with a long chiton folded underneath. The third statue, smaller in dimensions, is stylistically different and is usually identified with Artemis-Hecate, although some

scholars have recently identified it with an Aphrodite type. Through an accurate stylistic analysis, this paper tries to define more precisely the chronology of these statues, which have been variously dated to between the end of the third and the beginning of the first century B.C.E., and whom they might represent. This is of primary importance to establish to which phase of the Pompeian sanctuary the statues belong and which was the deity venerated there, a topic highly debated among scholars. Moreover, my paper examines the archival documents, in particular the photographic ones, to shed light on the possibility, proposed in the past, that other statues were present in the same sacred area, the memory of which is lost today.

Separating the Bambino (in Fasce) from the Bathwater: A Case for Local Agency in Italic Terracotta Votives

Mary-Evelyn Farrior, Columbia University

Terracotta votives of swaddled infants—referred to in Italian as “*bambini in fasce*”—appeared on the Italian peninsula beginning in the late-fourth century B.C.E. and were widely deposited at sanctuary sites for over two centuries. These rather uncanny figurines, typically smaller than life-size, abstract the infant to a rounded face and a tightly swaddled, club-shaped body; the details of the features and designs of the extant “*bambini*” vary greatly, particularly in the rendering of the swaddling bands. They are unique from other anatomical votives, with which they are often grouped, in that they also document social practices related to the dress and treatment of the infant body.

Rather than continuing in the vein of previous scholarship on these votives, which has primarily focused on the significance of these votives as evidence for coming-of-age rituals, this paper examines the many distinct variations in their designs and distributions as a case study for a more nuanced approach to the study of Italic terracotta votive tradition. Through a stylistic analysis of “*bambini*” from over fifty sites, I argue that we must prioritize local agency within the Italic votive tradition, rather than interpreting the practice as uniform across the peninsula or, as some scholars have done, relegate them to byproducts of religious Romanization. These votives combine elements of local artistic production and social practices, while still participating in a larger, emerging Italic religious tradition and cultural *koine*. These infants demonstrate that terracotta votives merit more careful attention, lest we oversimplify them and throw the “*bambini*” out with the bathwater.

Sanctuary and Society at Dura-Europos: Interpreting Bench-Lined Rooms in the Temple of Zeus Theos

Amber Leenders, University of British Columbia

The archaeology and social significance of religious spaces has been central to the study of the Arsacid-Roman site of Dura-Europos (Syria) since it was first excavated and published in the 1920s and 30s. Apart from the well-known synagogue, church, and mithraeum, over a dozen polytheistic sanctuaries were discovered at

the site, providing invaluable yet understudied information on religious practices and societal organization at the edge of empires. A key component of these sanctuaries is their many intriguing “*triclinia*” rooms, lined with stone benches and opening onto a central courtyard. Some have argued that these rooms were used by priests for exclusive dining purposes; others suggest that the rooms had multiple purposes including making sacrifices, eating, gathering, food preparation, and storage. Previous studies, however, do not take into account the full range of available evidence, and are too quick to impose overarching cultural labels onto spaces that reflect a uniquely local mix of identities. My case study, the temple of Zeus Theos, contains twelve such bench-lined rooms with varied architecture, finds, and features. Examining this sanctuary in context with the rest of the site, I argue that the bench-lined rooms were indeed multifunctional; but furthermore, I demonstrate how the evidence reveals that Dura’s sanctuaries served as spaces for people to define their identities in small groups based on ties of kinship, class, status, ethnicity, and gender. I present an integrated analysis of the archaeological and epigraphic evidence of the site by utilizing unpublished archival material from Dura, housed at the Yale University Art Gallery, which contains crucial reports, photos, and finds catalogues from twentieth-century excavations. This project uses a small-scale case study to open a new avenue into the wider study of religious practices in the Hellenistic and Roman Near East, and topics of commensality, community, exclusivity, and identity.

The Archaic Ionic Temple in Roman Thessaloniki: A Rebuilt Ruin?

Samuel Holzman, American School of Classical Studies at Athens

Foundations of a large marble temple below Antigonidon Platia in Thessaloniki first came to light in 1936 and were excavated in 2000. The style, form, and construction features of the temple’s marble superstructure date to the late Archaic period—almost two centuries before the founding of Thessalonikeia in 315 B.C.E. The mortared rubble foundation of the temple as well as fragments of two possible cult statues date to the Roman Imperial period. This was an “itinerant temple,” one disassembled, transported, and rebuilt at a new location in a phenomenon well known from the temple of Ares in the Athenian Agora. Since the original location and identification of the temple remain unknown, it has generated a wide range of interpretations. Was it originally the temple of Aphrodite Aeneas and rebuilt in Thessaloniki to house the imperial cult as part of the ideological program of Augustus (Voutiras 1999)? Was it rebuilt to commemorate Hadrian’s establishment of the Panhellenion (Stefanidou-Tiveriou 2012)? Did the temple originally come from this area and form the nucleus for the founding of Thessalonikeia (Boehm 2018)?

This paper offers new evidence of the building’s history based on focused analysis of its marble blocks. I argue that evidence of substantial damage and repairs in two phases show that the temple was salvaged from a collapsed ruin and not a standing building that was disassembled to be moved. Understanding the state of the building before it was rebuilt at Antigonidon Platia crucially changes the

valence of the Roman rebuilding. An image of restoration and historic preservation rather than spoliation or opportunistic recycling is the result of this reevaluation.

Mutilation, Modification, Christianization? An Archaeological Approach to the Erasure of Inscriptions in Late Antiquity

Anna M. Sitz, Universität Heidelberg

Studies of the late antique reception of the classical past are in vogue, yet the erasure of older inscriptions has rarely entered into this discourse, in comparison with the extensive research on the censoring or mutilation of ancient statues. Moreover, when erasures have been noted in epigraphic publications, the term is frequently used broadly, without attention to the particularities of each case (e.g., the thoroughness of the chiseling, the specific words removed, or the display context of the now-altered text). This paper argues that an archaeological approach to erased inscriptions is needed to clarify the aims of this late antique practice and broader attitudes towards the (pagan) past in the late Roman era (fourth to seventh centuries C.E.).

The examples presented indicate that the modification of ancient texts runs the gamut from full and thorough eradication, partial removal of only targeted words, and the sophisticated manipulation of older texts to create an entirely new reading. These erasures are distinct from the Roman political habit of *damnatio memoriae*. At Aphrodisias, the selective chiseling of an Augustan-era temple dedication when the building was converted to a church exposes the limits of previous methodological approaches to erasures (A. Sitz, *Journal of Late Antiquity* 12.1 [2019] 136–168). Close study of a baptistery now in the Burdur Museum (Turkey) reveals that certain letters on a spoliated Roman inscription have been erased; the result is a clever cloaking of the original dedicator's pagan identity. The editing is even more striking in the baptistery's archaeological context. Erasures such as these and other examples confirm the comprehension of older inscriptions and presuppose the continued reading of the now-altered text. By adapting methodologies applied to the study of statue mutilations, the archaeological evidence for the modification of ancient inscriptions in late antiquity indicates the continuing power, even danger, of these inscribed objects.

Session 3J: Colloquium Landscapes of Mediterranean “Colonization”

Organizer: *Naoise Mac Sweeney, University of Leicester*

Colloquium Overview Statement

The debate over Greek and Phoenician “colonization” is caught in an impasse, with critics and proponents of the colonial model largely retreating into their respective disciplinary corners. The papers in this colloquium session seek to break the stalemate by approaching the topic from a novel perspective—that of landscapes and survey archaeology. We suggest that survey data holds the key to a the

largely overlooked issue of local mobilities and intraregional migration, in contrast to previous studies of this period which have tended to focus instead on long distance and interregional movements.

The session will comprise an introduction (10 minutes), followed by five papers (20 minutes each), and comments from a discussant (15 minutes). Allowing for a 5 minute changeover between speakers, this gives us a total session length of 160 minutes. The papers will present new results from four different survey projects, each focusing on survey data from the period associated with the establishment of new settlements in the Iron Age (ca. 900–600 B.C.E.), and each considering local and intraregional (as opposed to interregional) mobilities. The four surveys offer a range of different perspectives on settlement and mobility—Ionia and Sardinia are classic “colonial” regions of the Greek and Phoenician worlds respectively; Cilicia is a more peripheral “colonial” Greek region; and Boeotia is a “core” region in what is considered to be the Greek heartland. Taken together, these papers will offer a new view of Greek and Phoenician “colonization.” We argue that Mediterranean mobilities were more complex and multi-scalar than is often assumed, involving a significant level of ongoing population circulation as well as seasonal and temporary movements. At a time when migration and the status of migrant communities is in the public eye, this panel reassessing some of the most iconic migrations of antiquity is both relevant and timely.

Discussant: *Lin Foxhall*, University of Liverpool

The Paradox of Regional Studies: Distinctive Introverted Communities with Histories and Prehistories of Internal and External Population Mobility; The Case of Boeotia, Central Greece in the Iron Age

John Bintliff, University of Edinburgh

The large agricultural province of Boeotia was famously distinct from its neighbors in Classical Antiquity and remains so today. Yet its early myths record considerable diversity in the ethnicity of each of the fifteen city landscapes, as well as notable migrations into the region—none of which are traditionally considered as “colonization.” Many of the city-states which emerge at the end of the Iron Age, during the Archaic era, are in new locations, necessitating considerable internal if not external migration. Now considered to be the first literary figure in Europe, the Boeotian poet Hesiod, was a second generation immigrant from Asia Minor. In a well-documented parallel, during the early and then late Medieval periods, two significant in-migrations occurred throughout the province, both seemingly absorbed over time into local community life and an initially totally alien language and culture. The Boeotia Project, a survey in five of the city-states, has for forty years been unraveling the complex settlement history of the province, and if we combine its results, together with the legendary and historical record, and inject relevant ethnoarchaeological models, it is possible to reconcile the paradox of apparent introversion of culture in predominantly agriculturally focused regions and their constant permeability to population movement at all scales. The concepts of “place-making” and “creative embeddedness” will be argued to form central

explanatory elements in resolving the wider issue of regionality in archaeology and history, and it will be suggested that the formative mobilities creating new communities in Iron Age and Archaic Boeotia are relevant to broader discussions of migration, settlement, and “colonization” across the Mediterranean.

Settlement and Urbanization on the Tyrrhenian Coast of S. Calabria

Lieve Donnellan, Aarhus University

Settlement on the Tyrrhenian coast of the southernmost part of Calabria is generally framed in terms of “Greek colonization” —ancient sources inform us that the Greek *polis* of Rhegion founded a subcolony at Metauros, and Locri Epizephyrii founded settlements at Medma and Hipponion. From the area, we know virtually nothing about pre-Greek Late Bronze Age or Early Iron Age settlement, despite the presence of important sites such as Torre Galli or Punta di Zambrone nearby. The southern part of Calabria has not been at the focus of archaeologists’ attention. Very little research has taken place and a significant part what eventually was done remains unpublished or only partially published.

In particular, apart from some traces at the later inland settlement of Oppido Mamertina and in the necropolis of the settlement of Metauros towards the coast, little is known about the urbanization processes that took place in the area. Small urban centers appear to have come into being, but their relationship with other settlements is unclear. Rural settlement or other occupation patterns has not been documented.

A new ceramic survey project in the Plain of Gioia Tauro aims at studying settlement patterns, urbanization, and the integration of this micro-region into local, regional, and wider Mediterranean networks and the physical landscape. The first preliminary results point to the existence of dynamic settlement patterns over time with several non-Greek settlements located on hilltops, followed by a centralization of settlement towards the coast. Rural settlement again seems to flourish from later Classical times onward. The settlement patterns, as well as the complex connectivity that they document, invite a more nuanced interpretation to the “Greek colonization” narrative. Local and regional migration might have been an important part of the documented settlement dynamics.

Ionian Landscapes: Evidence from Urla-Çeşme Peninsula (Klazomenai, Teos, Lebedos, Erythrai)

Elif Koparal, Mıman Sinan University

Ionia was a significant part of the ancient Greek world, and the epicenter of many events that shaped ancient Greek culture. Until recently, Ionian archaeology mainly focused on the excavation of *polis* centers and well preserved temple buildings, with political agendas and divergent approaches isolating it from the rest of Aegean archaeology. As a result, archaeological surveys investigating the rural landscapes around polis settlements are rare. Initiated in 2006, the Archaeological Survey Project of the Urla-Çeşme Peninsula combined intensive and extensive pedestrian survey, remote sensing (aerial and satellite imagery),

and geo-archaeological research to provide a diachronic understanding of rural settlement patterns. This paper presents the results of this survey, focusing on the development of the *chorai* of the four Ionian *poleis* in the peninsula—Klazomenai, Teos, Lebedos and Erythrai—during the Early Iron Age. The 425 archaeological sites discovered so far, including settlements, farmsteads, forts, tumuli, and sanctuaries, when together with the route network, demonstrate that these communities were socially and commercially active overland as well as overseas. Although our surveys have turned up only a handful of sites dated from eleventh to ninth centuries B.C.E., I will argue that this lack of identified sites in the *chorai* does not necessarily mean a lack of movement or that *poleis* were isolated spots in an otherwise desolate landscape. Indeed, I argue that the developments taking place during the Early Iron Age ultimately developed into the emergence of the *polis* at the beginning of the Archaic period. This paper highlights the importance of survey data to not only explore the web of relations in the peninsula during the Early Iron Age, but also highlight in more detail the diversities that existed in ancient Ionia.

From the Mountains to the Shore: Mobility in Iron Age Rough Cilicia

Naoise Mac Sweeney, University of Leicester, *Tevfik Emre erifo lu*, Bitlis Ewen University, *Anna Collar*, University of Southampton, and *Stuart Eve*, University of Leicester

For most of classical antiquity, settlement in Rough Cilicia was concentrated along a thin strip of coastline, with relatively little permanent habitation in the rough and mountainous interior that gives the region its name. Yet this was not the case during the Late Bronze Age and Early Iron Age, as demonstrated by work undertaken since 2013 by the Lower Göksu Archaeological Salvage Survey Project and the Ta eli-Karaman Archaeological Project. These survey projects have uncovered evidence for a complex and firmly established settlement system inland in the Göksu valley; a fertile river basin that offered not only fertile agricultural land, but also the only easily traversable route between the coast to the south and the Anatolian plateau to the north. In contrast, longstanding excavations on the coast suggest that activity here at this time was extremely sparse. Yet a major change occurred in the seventh century B.C.E., including the establishment of new settlements and the appearance of Greek forms of material culture on the coast. This has traditionally been interpreted as evidence for Greek colonization. In this paper, we argue that developments on coast should be seen in the context of changes in the settlement pattern and landscape use further inland, and we present results from survey work during these periods. In particular, the decline of habitation inland must have contributed to the establishment and growth of coastal settlements, through local and intraregional mobilities. By considering both the coast and the mountainous interior together as a single interrelated region, we are able to build a more complex and nuanced picture of mobility at various different scales—not only the interregional migration that brought individuals from Cyprus, the Aegean, the Levant, and further afield to Rough Cilicia, but also the intraregional movements.

An Uncaptured Sardinia? Intra-Regional Mobility and Connectivity the Coastal and Inland Landscapes of Iron Age Sardinia

Linda Gosner, University of Michigan, *Jessica Nowlin*, University of Texas at San Antonio, and *Alexander Smith*, The College at Brockport – SUNY

In 1921, travel writer D. H. Lawrence called Sardinia an unsubdued landscape “outside the circuit of civilization,” never fully colonized by Romans, Phoenicians, or Greeks. This view is representative of wider scholarly perceptions. Traditionally, archaeological research on colonization has focused on major coastal trading centers on Sardinia’s convenient natural harbors. These settlements have long been considered important nodes in long-distance maritime trade networks, facilitating the mobility of people and goods across the Mediterranean. By contrast, studies of inland landscapes of Iron Age Sardinia have focused on indigenous settlements built around stone towers called *nuraghi*. It is now time to break down this binary view and to consider the impacts of colonization on movement in and between these coastal and inland landscapes.

This paper draws from the new results of the Sinis Archaeological Project (SAP), a regional survey in west-central Sardinia’s Sinis Peninsula and adjacent Upper Campidano. The survey region encompasses landscapes with diverse ecologies and resources: agricultural plains, coastal and marshy areas, and mountainous territory. Our aim is to understand the manifold social and environmental factors impacting resource extraction, settlement patterns, and colonial interactions across these varied landscapes in the past. We present the results of pedestrian survey in 2018 and 2019 in the inland agricultural region surrounding the largest Iron Age indigenous settlement of west-central Sardinia as well in the adjacent coastal territory. We will also discuss our future work in the mountainous and coastal hinterlands of the colonial centers of Tharros and Cornus. Our multi-scalar and comparative methodology allows us to consider relationships between landscapes across traditional divisions (coastal and inland, urban and rural, colonial and indigenous). We suggest that this methodology illuminates the local impacts of colonization in Iron Age Sardinia, including intraregional mobility and connectivity across the island.

Session 3K: Joint AIA/SCS Workshop Classics and Civic Activism

Moderators: *Marina Haworth*, North Hennepin Community College, *T. H. M. Gellar-Goad*, Wake Forest University, *Yurie Hong*, Gustavus Adolphus College, and *Amit Shilo*, University of California, Santa Barbara

Workshop Overview Statement

Classicists at all levels are well-positioned to make an impact on their communities and civic institutions. They have knowledge, experience, skills, and contacts that can usefully contribute to civic activism outside of academia proper. There are many ways to use these resources to advance social justice via public-facing scholarship, in-the-community projects, running for office, and direct advocacy.

This workshop will provide attendees with the tools and strategies to engage more directly in civic activism by connecting experienced activists with SCS and AIA members interested in applying their skills to broader communities. The three featured presenters, coming from outside the discipline, will offer guidance in community organizing, engaging with representatives, and other advocacy work, with a specific eye to how Classicists can combine their skills and expertise with activism. The subsequent lightning-round presentations will allow members to share their own experiences with civic engagement, presenting a broad spectrum of Classics-based activism. The small-group discussion will allow time for participants to actively engage and share techniques and resources.

There is high interest in an event where people learn how to take action and advocate. Over eighty people attended the Classics and Social Justice open meeting in San Diego in January 2019, and our membership totals over 250 people. We are responding to this interest by proposing events with broad relevance for SCS-AIA members, getting more people involved and exchanging ideas within the academic, professional framework of the SCS-AIA annual meetings. This workshop is a key step in focusing and directing the energy of SCS-AIA members towards concrete impact in their communities. By demystifying the legislative process and the mechanisms of effective civic activism, this workshop will empower members to address the structural factors that affect the accessibility of Classics, humanities, and institutions of learning more generally.

Panelist #1, a leader with the Indivisible Guide, a major grassroots advocacy organization that has inspired the formation of over 6,000 independent civic activism groups, will introduce attendees to basic advocacy and organizing strategies, and provide resources for getting involved: a kind of "Organizing 101" course. Panelist #2, a staff member of the National Humanities Alliance with a background in higher-education advocacy, will offer techniques for academics to advocate for the humanities to build a bridge between what Classicists work on and the legislators and policymakers who make decisions that impact Classicists themselves. Panelist #3, from the American Federation of Teachers, will share the experience of secondary-school teachers with civic organizing. A high percentage of our students go on to be secondary-school teachers, and secondary-school teachers are a large portion of the field (if not of the SCS membership), so it is incumbent on us to prepare the next generation. Each of these organizations has confirmed that a speaker will be on hand to address these topics. Since panel date and time cannot be known in advance of submission, however, formal abstracts written by specific presenters are not being provided.

After these presentations there will be a lightning round lasting 45 minutes, with a series of 35-minute presentations by SCS-AIA members who are or have been involved in civic activism and advocacy. This lightning round will draw speakers from the Classics and Social Justice Affiliated Group and from a broad call for contributors.

The workshop will conclude with a 40-minute session of small-group discussions facilitated by one of the presenters in the workshop an organizer, a featured presenter, or a lightning-round participant for brainstorming, skills assessments, and project planning. In the last 5 minutes, we will gather written feedback and suggestions for keeping track of projects and sustaining momentum.

Panelists: *Kim McMurray*, The Indivisible Guide, *Alexandra Klein*, National Humanities Alliance, *Lindsay Theo*, American Federation of Teachers, *Kiran Mansukhani*, The Graduate Center, CUNY, *Wynter Pohlenz Telles Douglas*, Bryn Mawr College, *Olga Faccani*, University of California, Santa Barbara, *Emily Allen-Hornblower*, Rutgers University, *Kristina Chew*, Rutgers University, *Arti Mehta*, Howard University, *Dan-el Padilla Peralta*, Princeton University, and *Jerise Fogel*, Montclair State University

Session 4A: Open Session Consumption and Exposure in the Roman World

Taste and Technique: Reconstructing Food Preparation Strategies through Use-Alteration Analysis of First-Century C.E. Cookware Assemblages from Pompeii

Aaron Brown, University of California, Berkeley

This paper considers how the inhabitants of first-century C.E. Pompeii prepared their daily meals and what factors influenced their choice of cooking techniques. Through an examination of the frequencies of particular types of vessels (bronze and ceramic) and utensils used for food and drink preparation recovered from a series of previously excavated properties in and around Pompeii, I reassess what constituted the standard *batterie de cuisine* within the Pompeian kitchen and how this could be modified according to the needs and preferences of the one stocking the shelves. I further offer a reconstruction of the various cooking methods employed and preferences exhibited by those who used these cookwares through an analysis of use alterations displayed by the objects. This involves the systematic examination and documentation of intentional and unintentional modifications—including sooting, scratching, denting, etc.—visible on the surface of each object. The properties selected for this study represent a range of property types, including modest and grand houses, commercial food establishments, and suburban villas, allowing us to discern how food preparation strategies differed between households, as well as residential and commercial properties. I interpret these differences as indicators of the socioeconomic priorities and individual tastes of those who prepared the meals within these different contexts.

This study, based on fieldwork carried out in August and September of 2019 in the storerooms at Pompeii, sheds light on an often overlooked aspect of Roman daily life through the examination of an historically neglected class of artifacts. It also provides a corrective to traditional typological artifact studies which privilege morphology over functional considerations. By focusing on the dynamics of object-user interaction and how vessels and utensils were actually manipulated within Roman kitchens, as evinced through use alterations, we can better appreciate not only the methods, but also in part the motives of the cooks who used such objects.

A mari ad mensam: An Investigation of Social Status Through Fishing and Fish Consumption in the Roman Mediterranean

Catherine E. Gould, University of Southampton

Fish sauces, such as garum, have been explored in numerous studies of Roman marine exploitation, yet the sociocultural implications of fish consumption and status in the Roman world have been, for the most part, overlooked. This is not to say that no scholar has examined the sociocultural significance of ancient fishing practices; in the past two decades, there have been several significant investigations into the specifics of the Roman fishing and aquaculture industries. However, the argument that fish is an indicator of status in the ancient Roman diet is less developed than the conclusions drawn about fish and fishing within the Roman economy and technological contexts.

In this paper, I aim to fill the gaps in previous academic analyses of Roman marine resource exploitation by examining the social status inherent within several connected elements of the Roman fishing industry. The guiding research questions are as follows: To what extent was the presence of saltwater fish in Roman diets a status indicator? Can evidence from Roman iconography, literature, and archaeology be used to create a definitive status hierarchy of consumable fish in the Roman world? What were the social status implications in the Roman fishing industry from sea to table? To answer these questions, this paper combines primary source material with modern scholarly interpretations to form an original contribution to the archaeological studies of the Roman world.

The conclusions I make are as follows: The Romans of the Imperial period valued saltwater fish over freshwater fish; these same Romans preferred fresh fish over preserved fish. The fish which came from a private fishpond was an indicator of higher status than the purchase of fish at a market or a meal of fish from a tavern, and the environment from which fish were caught designated their value and popularity within Roman dietary culture.

Skeletons from Oplontis Reveal Dietary Differences in the Bay of Naples (79 C.E.)

Kristina Killgrove, University of North Carolina at Chapel Hill, Andrea N. Acosta, University of South Carolina, and Robert H. Tykot, University of South Florida

Measurement of the stable isotopes of carbon and nitrogen from human bone collagen is common practice in bioarchaeological projects interested in palaeodiet. Although a number of studies have employed this technique on cemetery populations from the Imperial Roman world, just two previous studies have highlighted the diet of people killed by the eruption of Mt. Vesuvius in 79 C.E. Here we present the results of a new palaeodietary analysis of twenty-four people from the site of Oplontis (Torre Annunziata, Italy).

The human skeletons were discovered between 1984–1991 in Room 10 of Oplontis B, and full analysis of the remains began in 2017. Our isotope analysis of the rib collagen shows a $\delta^{13}\text{C}$ average of -19.3‰ , suggesting a diet primarily composed of wheat and barley, and a $\delta^{15}\text{N}$ average of 10.8‰ , suggesting a diet of terrestrial meat such as pork. However, the average nitrogen value at Oplontis is significantly higher than that at Herculaneum and Pompeii, suggesting that

people from Oplontis may have also been eating higher trophic level food, such as marine mollusks or sardines.

Within the population, we also identified changes in diet during several individuals' life courses by comparing the isotope values in their tooth collagen versus bone collagen. For example, one older man ate a diet in the last five years of his life that was significantly lower in nitrogen than was his adolescent diet. Given his antemortem tooth loss, his different diet over time is likely a result of masticatory problems.

This palaeodietary study of the people found at Oplontis represents the first biochemical analysis of this population. Further work on their DNA to determine biological relationships and disease status is ongoing.

The People of Oplontis B: An Osteological Study of Age, Sex, and Familial Relationships

Andrea Acosta, University of South Carolina, *Kristina Killgrove*, University of North Carolina, Chapel Hill, and *Shyiesha Carson*, University of West Florida

Vesuvius erupted in 79 C.E., leaving entire towns and their populations buried for centuries. One such place was Oplontis B, assumed to have been a wine and oil emporium or distribution center in the Campania region. Skeletons were discovered between 1984–1991 only in Room 10 of the complex.

Our 2017–2018 excavation and osteological analysis was the first full accounting of the human skeletons and casts from Oplontis and revealed a minimum number of 64, higher than previously assumed. People of all ages are represented in this cross-section of the living population, composed of 28 non-adults and 33 adults; the sex ratio was evenly distributed with 17 females and 18 males. This demography differs from cemetery populations, wherein females are usually underrepresented and there is high infant mortality. Notably, two full-term fetuses were found in or near two adult females. The presence of nonmetric cranial and dental traits in this population, such as persistence of the metopic suture and shovel-shaped incisors, also suggests biological relationships among individuals.

Both the archaeological evidence from Oplontis B and the osteological discoveries suggest that this multiuse complex was a form of a residential business that may have been family owned and operated. Ongoing DNA analyses will allow us to further investigate the demography of this population, including our biological relationship hypothesis, and isotope analysis may reveal whether any of the people who died at Oplontis were immigrants.

An Interdisciplinary Study of Lead Use and Lead Exposure on an Imperial Roman Estate (First–Fourth Century C.E.) in Southern Italy

Tracy Prowse, McMaster University, *Maureen Carroll*, University of Sheffield, *Mike Inskip*, McMaster University, and *Jane Evans*, British Geological Survey

Excavations at the site of Vagnari in southern Italy have uncovered a vicus and necropolis (second–fourth centuries C.E.) associated with a large Imperial estate. Vagnari is the largest Roman period site in the region and was likely situated near

the via Appia, an important trade route linking Rome to the southeast coast of Italy. Evidence of metal working, lead scrap, and lead objects from the vicus at Vagnari suggest that lead was a ubiquitous resource on this Imperial estate. This raises questions about where this lead came from and the possible health consequences of its widespread use on the people working and living at Vagnari, particularly for children who are at greater risk for negative health consequences associated with exposure to lead. We have the unique opportunity at Vagnari of knowing where the people lived and worked with this toxic material, and we have their physical remains in the necropolis to investigate lead levels in their teeth.

Isotope analysis of the lead manufacturing debris and artifacts recovered in the vicus indicate that the ores were extracted from mines in Sardinia and/or western Italy. Preliminary analysis of the source of lead in the Vagnari teeth indicates similar geographic origins. Laser ablation analysis on 20 deciduous and permanent molars from the Vagnari skeletal sample is progress. Preliminary results from the first 9 teeth of this sample reveal that approximately 20% had highly elevated lead levels (up to 37.7 ppm), including both women and children, while the remaining individuals had lead levels within acceptable ranges. This paper discusses the relationship between lead production, lead exposure, and the health consequences for members of this rural Roman community.

A Spatial Epidemiological Model of Malaria Transmission Risk in Roman Italy

David Pickel, Stanford University

Given our ever-growing knowledge of malaria's prevalence in ancient Italy, archaeologists and ancient historians increasingly are taking the disease into consideration when studying the demography and economy of Rome, and understandably so. Wherever prevalent, the disease has costs, the gravest being significant increases in mortality and morbidity rates, especially among children. Malaria also depresses economic growth. Moreover, these costs can engender and reinforce sociopolitical struggles and inequalities.

Yet this recent work lacks specificity, in particular with regard to the spatial and temporal boundaries that humans and the environment impose upon the disease. Much scholarship presents oversimplified descriptions of malaria's ancient prevalence, often describing the disease as if it were at all times everywhere. On the contrary, it is more likely that the disease was highly circumscribed, thus impacting regions and populations differently much in the same way it does today. Given the evidence currently available, how can we improve our understanding of this differential impact and the ways in which Romans lived with the disease?

In this paper, I offer a new way to specify malaria's likely prevalence in the past. Drawing from epidemiology and disease ecology, I use spatial analysis to model ancient malaria transmission risk in Roman Italy based on essential ecological criteria: temperature and hydrology. I then juxtapose this model with the archaeological and textual data, which provide evidence for Roman approaches to water management and daily life within potentially at-risk areas. Through this juxtaposition, it becomes clear that the Romans, although unaware of malaria's specific etiology, were likely able to incidentally reduce the risk of the disease's transmission. It also suggests that malaria's eventual entrenchment within the

peninsula, lasting until its elimination in the mid-twentieth century, may have been a consequence of those very same Roman practices which for a time curtailed its transmission.

Session 4B: Colloquium

Material Approaches to Ptolemaic Imperialism

Organizers: *Thomas Landvatter*, Reed College, *Jennifer Gates-Foster*, University of North Carolina at Chapel Hill, and *Melanie Godsey*, University of North Carolina at Chapel Hill

Colloquium Overview Statement

In the third century B.C.E., the Ptolemaic dynasty presided over the largest expanse of Egyptian power since the New Kingdom, eventually including significant parts of Nubia, coastal North Africa, the Aegean, Crete, Cyprus, and the Levant. The discontinuous nature of the Ptolemaic territories has resulted in regional case studies that are typically hyper-local in their focus and rarely compare across the eclectic span of Ptolemaic economic and political influence. This fragmented narrative—characterized by Ptolemaic episodes and interventions—is often also presented without material contours. In this session, we ask what an archaeology of Ptolemaic imperialism might look like and how objects and assemblages studied in context can offer insight into changing material patterns stimulated by new economic, religious and civic practices that developed in spheres impacted by Ptolemaic rule from the third to first centuries B.C.E. More broadly, we aim to situate studies of the Ptolemaic empire in an archaeology of Hellenistic imperialism and ancient imperialism more broadly.

The six papers in this panel consider material perspectives on Ptolemaic imperialism from different contexts across the Eastern Mediterranean. The first, “Ptolemaic Imperialism and Material Culture,” frames the conversation, providing an overview of Ptolemaic imperialism and a framework for incorporating material evidence in its study. The second paper, “Ptolemaic Pots? Contextualizing Assemblages in the Ptolemaic East,” examines the Ptolemaic presence in the Levant through an analysis of ceramic assemblages. The following paper, “Mortuary Practice and Social Change on Ptolemaic Cyprus,” considers the social effects of Ptolemaic rule on Cyprus through the lens of burial practice. From Cyprus the focus of the panel moves westward, with “Ptolemaic Imperialism in Southern Greece” considering whether Ptolemaic rule in Greece produced archaeologically perceivable effects on social practice and economic choice. The fifth paper, “Hellenistic Crete and Material Evidence for Ptolemaic Influence and Imperialism,” critically analyzes the development of Crete during the Hellenistic period in relation to Ptolemaic hegemony in the region. In the last paper, “Ptolemaic Borderlands: The Red Sea and Nubian Frontiers in Archaeological Perspective,” the panel’s focus returns to Egypt itself, considering Ptolemaic imperialism along the eastern and southern borders of Egypt through an analysis of fortifications and settlements. These papers, with their wide geographic focus and diversity of material

approaches, provide a holistic view of Ptolemaic imperialism and define a way forward for the material study of the Ptolemaic empire.

Ptolemaic Imperialism and Material Culture

Christelle Fischer-Bovet, University of Southern California

The last two decades saw a renewed interest in the study of empires among ancient historians (e.g., Bang and Scheidel), partly influenced by comparative approaches to premodern and modern empires. At the same time, historians of Hellenistic Egypt (e.g., Hauben and Meeus) have challenged the old idea that the first Ptolemy was not attempting to build a vast empire. They have emphasized the imperial character of the Ptolemaic royal ideology and more broadly what may be called a Ptolemaic culture. Only a holistic approach to the sources may allow us to assess how Ptolemaic imperialism was shaping the interaction between imperial elites and lower rank officials/soldiers on the one hand and local communities on the other hand and how it has affected their cultural, social, economic and political environment throughout the empire.

The aims of the paper are twofold: first, to give a brief overview of Ptolemaic imperialism with a particular attention to change over time; second, to sketch a framework that integrates more thoroughly material evidence, including coinage, into the study of Ptolemaic imperialism. Material evidence has the advantage to be more evenly preserved throughout the empire than papyri. The latter give a unique glimpse into Egypt but tend to make it appear more exceptional than any other region. Material evidence also enable us to read against the grain some of our literary sources, that focus on the decline of Ptolemaic power. Instead, “decrease” and “increase” can be qualified in terms of the development of (sometimes new) settlements, dissemination of a particular visual culture, economic production or circulation of goods. As a case study, Ptolemaic settlement patterns in Southern Anatolia and in the Red Sea are compared to show differences but also the mark of a Ptolemaic culture in the making.

Mortuary Practice and Social Change on Ptolemaic Cyprus

Thomas Landvatter, Reed College

Aside from a ten-year interval from 305 to 295 B.C.E. when it was controlled by the Antigonids, Cyprus was under near-continuous Ptolemaic control from 312 to 58 B.C.E. In contrast to other areas under Ptolemaic rule, Cyprus underwent a radical political transformation in the third century B.C.E. Cyprus was culturally and ethnically diverse, with significant Greek, Phoenician, and so-called “Eteo-Cypriot” populations, and while the island was nominally under Persian control during the fourth century B.C.E., Cyprus in practice had been ruled for several centuries by a varying number of independent city-kingdoms. With the final establishment of Ptolemaic control on the island in 295, the city-kingdoms were abolished and the Ptolemies ruled the island directly. Given the scale of the political transformation on the island, Cyprus provides an interesting test case to examine the social and material effects of the Ptolemaic imperial project.

This paper examines the effects of Ptolemaic rule on Cypriot society through the lens of burial practice. While mortuary practices have the tendency to be conservative, the purposeful and structured nature of human burial means that shifts in mortuary patterns can shed light on wider social transformations. Communities on Cyprus had long-standing traditions of burial practice that were distinct from surrounding regions, including the widespread use of inhumation in rock-cut communal burial chambers. During the Ptolemaic period, there were significant shifts in mortuary behavior linked with broader trends in areas under Ptolemaic control, in particular the political center of Alexandria. This includes the use of cremation and more monumental, architecturally elaborate rock-cut communal tombs (i.e., the so-called "Tombs of the Kings"). However, while linked to burial practice elsewhere, these innovations on Cyprus have particularly Cypriot connotations and were adapted to preexisting Cypriot norms. Mortuary practice, among elites at least, was Ptolemaic in style but fundamentally Cypriot in structure.

Ptolemaic Pots? Contextualizing Assemblages in the Ptolemaic East

Peter Stone, Virginia Commonwealth University

Of the Ptolemaic territories outside of Egypt, Coele-Syria and Palestine were the most fiercely contested in the Hellenistic Period. Claimed by Seleucus I but in fact held by Ptolemy I, it would be the scene of five Syrian Wars fought between their successors from 274 to 197 B.C.E. Despite a wealth of excavation in this region, monuments and inscriptions that might elucidate the workings of imperial power are rare in the span it was held by the Ptolemies, leaving us only more humble remains as possible archaeological testaments to their rule. To see if such remains can speak to imperial realities I will present an overview of ceramic assemblages from the Nile Delta, the Levant, and eastern Cilicia in the third and early second centuries B.C.E., allowing for comparisons between sites located in Ptolemaic Egypt, their contested Levantine territory, and into areas squarely held by the Seleucids. This overview will demonstrate similarities in the typical range of table and cooking vessels made and used in the delta of Egypt and the southern Levant. We will consider whether these similarities can be attributed to Ptolemaic imperialism or other social and economic factors.

Ptolemaic Imperialism in Southern Greece

Melanie Godsey, University of North Carolina at Chapel Hill

The Greek mainland remained an important cultural center and battleground for the successors of Alexander the Great. The Ptolemies established garrisons, founded new settlements, relied on port cities to maintain their thalassocracy, and received offerings in return for their benefactions in early Hellenistic Greece. Recent studies have explored how inscriptions, portraiture, and royal cult monuments display a centralized presence of Ptolemaic power in Greece into the mid-second century B.C.E. Although long-term Ptolemaic occupation is recorded in certain parts of Greece, such as Methana, the overwhelming historical evidence for isolated, short-term settlements to meet certain political or military goals deters

interest in studying the integration of Ptolemaic settlements into regional social and economic landscapes. Material consequences of Ptolemaic imperialism in the region, therefore, remain underexplored. I discuss changes in land use, agricultural production, and ceramic assemblages to contextualize the material culture of southern Greece in the discussion of administrative and institutional facets of Ptolemaic imperialism. Are there perceivable effects on social practice and economic choice in Greece? Through a contextual study of the dialogue between human, landscape, and material actors in the imperial project, the approach gears the analysis toward recent studies of ancient imperialisms in order to challenge how the Ptolemaic iteration of empire fits into discussions of Hellenistic material culture.

Hellenistic Crete and Material Evidence for Ptolemaic Influence and Imperialism

Scott Gallimore, Wilfrid Laurier University

The island of Crete is a difficult location to characterize during the Hellenistic period. Home to a Ptolemaic garrison at Itanos in the northeastern corner of the island, Crete remains isolated from many of the broader discussions of the eastern Mediterranean despite its position as a central node between Asia Minor, the Aegean, and North Africa. Discussions of the relationship between Hellenistic Crete and Egypt tend to emphasize two points: (1) that Crete was a source of mercenary soldiers; (2) and that the island served as an intermediary for economic and intercultural exchange networks between Egypt and regions like the Peloponnese and southwestern Asia Minor. Focus on the extent to which Crete was active in the development of these networks and how this is reflected in material assemblages is lacking. In fact, by the second century B.C.E., most overviews of Crete focus more on the island's growing contact with Rome and the transformations that may have stimulated. With ever-increasing publication of data sets from excavation and survey, there is potential to reevaluate the development of economic, religious, and civic institutions on Hellenistic Crete within the context of eastern spheres of influence and to assess the island's contributions to those developments locally and internationally. Thus, this paper aims to engage in critical analysis of the traditional perspectives of Hellenistic Crete within the context of Ptolemaic hegemony by addressing the central concern of the colloquium: what an archaeology of Ptolemaic imperialism might look like. Developing that picture for the island will enable novel interpretations of Crete during the Hellenistic period and better situate the island within the numerous spheres influenced by the Ptolemaic dynasty.

Ptolemaic Borderlands: The Red Sea and Nubian Frontiers in Archaeological Perspective

Jennifer Gates-Foster, University of North Carolina at Chapel Hill

Over the last twenty years, archaeological survey and excavation have given rise to a new understanding of Ptolemaic imperialism along the eastern and southern frontiers of the Egyptian state. In these border zones, fortifications, mining settlements, and coastal communities were established in the Eastern Desert and Red Sea regions alongside a dynamic program of temple patronage and community

development in Syene and the Dodekaschoinos. These locations were nodes of contact with nomadic populations, especially the Blemmyes of the Eastern Desert and Nubia, as well as the 'Arabs of the Desert' now known from the *ostraka* recovered at Bir Samut. These communities also functioned as zones of identity construction where cultic performance mediated the relationship between local power brokers, officials from Alexandria and polities in distant Meroe. In each case, Ptolemaic power and the practices of living at the margins of the Ptolemaic enterprise were materially expressed and dynamically intertwined with much older cultic and economic patterns visible in the landscape.

In this paper, I consider the nature of Ptolemaic imperialism as expressed through the new settlements and fortifications constructed in the third century B.C.E. along the Red Sea coast and in the Eastern Desert beyond the borders of Egypt. Mapped onto a much older landscape of Nubian trade and entanglement, the Ptolemaic imprint on these regions reveals a strain of awareness of older nodes of exploitation and settlement, just as the temples constructed in the Dodekaschoinos engage with cultic topography derived from New Kingdom and Late Period precedents. The broader picture that emerges is of a Ptolemaic formulation of imperialism centered on spaces—temples and fortifications, in this instance—that mediated the borderland encounters of the third century B.C.E.

Session 4C: Poster Colloquium

The Gabii Project Excavations: 2009–2019

Organizer: *Andrew C. Johnston*, Yale University

Colloquium Overview Statement

This poster session highlights various facets of current research from the ongoing work of the Gabii Project, which since 2009 has been investigating the Latin city of Gabii, 20 km east of Rome. After a decade of excavation, a critical mass of data has now been gathered to begin to answer important questions about the whole urban trajectory, from the pre-urban phases through late antiquity, which have relevance for the study of Roman urbanism more broadly. In particular, this session aims to embrace a wide range of different methodological approaches to the long history of Gabii, which reflect the Project's excavation and recording practices as well as the significant potential not only of the site, but also of the modern "big dig."

The Bronze Age at Gabii is obscure compared to other periods, but recent ceramic finds allow for new observations about the earliest occupation of the site ("New evidence from the Bronze Age"). Funerary practices and textile production can reveal the important role played by women and children in communicating group boundaries and facilitating social cohesion in the emergent urban spaces of central Italy like Gabii ("Burials and Bobbins"). The faunal remains from the Early Iron Age through Archaic periods reflect changes in economy and meat consumption that correspond to the changing social structure at Gabii ("Zooarchaeological Research at Gabii").

An extraordinary archaeobotanical sample affords a rare glimpse into the uncultivated pastureland of Republican Gabii, providing new insight on Roman foddering practices (“Fodder for Thought”). An analysis of a collated data set for fine wares at Gabii and the (g)local trade networks that they reflect contributes to a critical reinterpretation of the urban trajectory of the city after the late Republican period (“Fine Ware Consumption Trends”). Complementarily, the large collection of brick stamps excavated at Gabii allow for the reconstruction of the city’s shared trade network with Rome (“Building an Empire”). A newly uncovered imperial building—a remarkable elite *domus* of the third century C.E., which was later converted into a productive facility—helps to fill in a major gap in our knowledge of the later occupation of the city (“Life at Gabii”). An ongoing reexamination of the famous Gabine sculptures discovered by Hamilton in the eighteenth century enables a more accurate reconstruction of their ancient appearance, and a more complete understanding of these artifacts whose lack of secure context has resulted in their neglect by archaeologists (“Restoring the Restored”).

New Evidence from the Bronze Age at Gabii

Mattia D’Acri, University of Missouri

The Bronze Age at the site of Gabii is obscure compared to the other periods. There is much archaeological evidence from the Iron Age to the Roman period that allows for a relatively comprehensive reconstruction of the site, but the situation for the earliest phases is completely different. So far, for the Bronze Age, only one site is known, related to a small village on a terrace overlooking Lake Castiglione, dated back to the Middle Bronze Age (fourteenth century B.C.E.). There have been sporadic pottery sherds recovered around the Lake of Castiglione area, and one sherd from the area inside the perimeter of the Archaic town, all dating to the Recent and Final Bronze Age (thirteenth–eleventh centuries B.C.E.). The latter area is where the Gabii Project has been operating since 2007. In the new excavations, some important evidence dated back to the Bronze Age has been recovered, in particular from the Areas C and D, although it unfortunately was found in secondary deposition. In fact, secure stratigraphic contexts dated to this period are still unknown. The goals of the poster are to present the new Bronze Age sherds that have been uncovered from the Gabii Project excavations, and, in light of this new evidence, to offer some new observations on the Bronze Age occupation of the site that would later develop into the city of Gabii.

Burials and Bobbins: Integrating Textiles and Tombs into the Rhythms of Early Life at Gabii

J. Troy Samuels, Indiana University, Bloomington, *Sheira R. Cohen*, University of Michigan, and *Sabina A. Ion*, Gabii Project

While the urban development of Rome has been extensively studied from a historical and topographical perspective, the difficulties of urban excavation have limited our ability to understand the intricacies of social organization in the pre-urban settlement. Recent excavation at the Latin city of Gabii, an early neighbor

and rival to Rome, has helped fill this gap and provides a unique opportunity to study individual elite groups as they navigate the emerging urban environment and begin to forge new urban communities. Individual agency plays a large role in these negotiations and therefore requires a careful analysis of the material traces of individuals and individual activities.

Our excavations at Gabii provide a glimpse of some of these formative practices and reveal new evidence for the important role played by women and children in communicating group boundaries and facilitating social cohesion in the emergent urban spaces of central Italy. In this poster, we look at two activities that are not often linked, yet are particularly visible at Gabii, funerary practices and textile production. As a mechanism for communal expression and status display, funerary behavior has received considerable attention by archaeologists across the globe. In particular, archaeologists have focused on the potential correspondence between the structure of the living and mortuary populations and the distortion and manipulation of that structure through funerary practices. By contrast, discussion of production techniques and organization has largely focused on the economic implications without integrating these behaviors into our considerations of identity formation and identity display. Textile production, as with all collaborative activities, requires and generates communal bonds that, through time, craft dynamic human networks within and between groups. This poster will explore the different rhythms of community building that we see when we examine the material traces of different groups in the archaeological record.

Zooarchaeological Research at Gabii: Results from the Early Iron Age through Archaic Periods

Victoria C. Moses, University of Arizona

Because the Gabii Project has studied large excavation areas in a systematic way, the early occupation levels of Gabii provide a rare opportunity to understand the urban development of an important Latial center. The faunal remains from the Early Iron Age through Archaic periods reflect changes in economy and meat consumption that correspond to the changing social structure. The zooarchaeological evidence at Gabii includes larger fragments of bone collected from full soil sieving of early deposits and microfauna remains from soil sample flotation. These provide rich data for understanding both how ancient Gabines purposefully harnessed animal resources but also how animals reflect the natural and built environment.

Sheep and goat were the most common animals across these periods. However, the way that sheep and goat were used changed over time and differed between areas of the site. Based on the age of the animals, the inhabitants of Area C raised animals for meat consumption while Area D raised animals for other products, as well as for meat. By the Archaic period, there was an increase in cattle consumption in Area D that suggests the emergence of meat production sites outside the habitation area. Sheep, goat, and pig continued as the most abundant animals. In the earliest levels, there was a significant number of equids, both horse and donkey, that would have played an important economic role as beasts of burden. The preliminary results from microfaunal analysis show the presence of wild animals, including rodents, birds, fish, and lizards. Rodents in particular can be used as a

proxy for urbanization, since they are attracted to waste from an increase in human activities. Zooarchaeological analysis at Gabii shows how human and animal interaction during these periods reflect economy, meat consumption, social structure, and the environment.

Fodder for Thought: Botanical Remains from Republican Gabii

Laura Motta, University of Michigan, and *Katherine Beydler*, University of Michigan

This poster will present the preliminary results of the analysis of archaeobotanical material from an early Republican complex excavated in Area C. In particular, it will focus on a single sample with an atypical taxonomic composition. The plant remains come from a fifth-century B.C.E. road preparation layer that primarily consisted of burnt material. This sample preserved a remarkable amount of seeds that are not usually considered fit for human consumption and which often grow in arable fields, including small members of the bean family (Fabaceae) and a variety of wild grasses. It also contained high numbers of edible grains, both wheat and barley, showing an excellent level of preservation. As a whole, the sample represents an interesting and unique glimpse into plants that are usually understudied and underrepresented in archaeological contexts, informing us on the uncultivated landscape and pastureland of Republican Gabii and providing new insight on Roman foddering practices.

Fine Ware Consumption Trends at Republican and Imperial Gabii

Matthew C. Harder, University of Missouri

This poster presents some preliminary analysis on the consumption of fine wares at the Latin site of Gabii during the Republican and Imperial periods. The city of Gabii was located on the Via Praenestina roughly halfway between Rome and Praeneste. Literary accounts typically describe Gabii as relatively destitute and in decline by the Late Republican period. In order to better qualify such historical information, it is necessary to broadly survey the archaeological evidence before and after the supposed Sabine decline. This project presents, for the first time, the collated ceramic data (Black gloss ware, terra sigillata, ARS, etc.) from all of the published sources and projects conducted at Gabii. By sketching what vessels Sabines acquired and the associated use context, we can more accurately talk about the social and cultural realities of the site during these periods. Thus, integral components to this poster are diachronic distribution maps that show where, when, and what type of ceramics were being used across the site. In sum, the poster contributes to the ongoing research questions such as what (g)local trade networks the Sabines tapped into during these periods, and what these materials can inform us about the life history of Gabii.

Building an Empire: The Roman Brick Industry at Gabii

Christina Cha, Florida State University

Recent excavations of the Gabii Project have uncovered a large quantity of ceramic building material, of which a sizable portion features stamps. Roman brick stamps can be helpful in identifying the sources of the bricks used for urban building programs. The collection of brick stamps from Gabii shows that numerous brickyards were involved in supplying the construction material for the site. Yet the ancient purpose of brick stamps remains uncertain, whether they were used to take stock of inventory, or to guarantee the quality of the end product, or possibly for both aforementioned reasons. Nevertheless, the information provided by brick stamps can be used to better discern the industry's organization, production practices, and patterns of distribution.

Many different stamp types have been found at Gabii, and several of these have comparable examples from Rome and other peripheral locations, revealing significant trade connections. Gabii's proximity to Rome seems to have allowed the two cities to participate in a shared network of trade. At present, there is minimal evidence for a local production of bricks at Gabii, and based on the preliminary results of this study, the Gabines appear to have imported most of their ceramic building material from external sources. By analyzing the evidence of brick stamps from Gabii and then comparing the data with that of other sites in its periphery, this study aims to contribute to a clearer understanding of how ceramic building material was both created and distributed across a regional trade network.

Life at Gabii during the Middle and Late Imperial Periods

Arianna Zapelloni Pavia, University of Michigan, *Amelia Eichengreen*, University of Michigan, and *Darcy Tuttle*, University of California, Berkeley

In contrast to our increasingly clear understanding of Gabii during the Archaic and Republican periods, little is known about the urban trajectory of the site during the middle and late Imperial phases. In the past three years, the Gabii Project has begun investigating the later phases of its occupation and abandonment. Here we present preliminary results concerning these little-known periods based on new archaeological findings, which better inform our understanding of the site as a whole: we focus on the excavation of an imperial *domus*, which has yielded new and more detailed information about the economic and social vitality of Gabii during the middle Imperial period.

During the 2016–2019 field seasons, the Gabii Project uncovered a large building constructed in *opus vittatum*, dating to the second to third centuries C.E. After the beginning of the fourth century C.E., the building was modified for production. The most prominent features of the original phase of this building include a large central room, perhaps an atrium or peristyle, paved with mosaic floors with black and white geometric decorations, as well as an apsidal room, which likely functioned as a *tablinum* or reception hall based on its layout and position. Structures with similar plans in North Africa and Spain demonstrate that this large Gabine *domus* was modeled on a type of elite domestic architecture that was widespread during the second to fourth centuries C.E. However, in the fourth century C.E., the

splendor of the building comes to an end. In line with contemporaneous trends for such buildings, its elaborate spaces fell out of use, and parts of the structure were repurposed for production activity, while others were robbed out.

Hamilton and the Remaking of the Gabii Sculptures

Zoe Ortiz, University of Michigan

At the end of the eighteenth century, art dealer and antiquarian Gavin Hamilton discovered one of the largest caches of sculpture ever found in Italy outside of Rome. Excavating at Gabii, Hamilton uncovered a puzzling array of artifacts, including full-scale mythological sculptures, miniature table sculptures, monolithic inscriptions, and imperial portraits spanning three centuries. In addition, Hamilton claims to have discovered a large public space at Gabii, which is now known as "Hamilton's forum." At the end of this excavation, Hamilton remitted the majority of his finds to the Borghese estate, where the sculptor Vincenzo Pacetti set out to "prepare" the sculptures for their very own museum. Unfortunately for the Borghese family, they were compelled to sell this collection to Napoleon, who transported the collection to the Musée du Louvre, the sculptures' current home. Recently, a new collaborative analysis with the Louvre has been undertaken. Through this work, along with the fresh reexaminations of the *Giornale* of Pacetti, the illustrations of Visconti (the curator of the new museum), and the various letters of their associates, we have been able to discern the various modifications to the sculptures undertaken in the 18th century. In doing so, we have created a more accurate picture of these sculptures and how they would have been seen in ancient times.

This poster presents the discoveries of Hamilton, the modifications made by Pacetti, and the curation of E.Q. Visconti in order to begin the process of recreating their ancient environment within Imperial Gabii. By doing so, it demonstrates the benefits of an interdisciplinary approach (i.e., archaeology, art history, and antiquarian studies) in understanding sculptures and artifacts that were discovered without a thoroughly recorded archaeological context, a class of objects that are often disregarded by modern archaeologists.

Session 4D: Open Session Regions, Households, and Objects: New Research in Southeastern European Prehistory

More Similar Than Different: Reassessing Settlement Patterns and the Implications for Late Neolithic Archaeological Cultural Units on the Great Hungarian Plain

Danielle Riebe, University of Illinois at Chicago

Since the 1920s, the prehistoric chronology and archaeological cultures in Hungary have been fairly well defined. The incorporation of radiocarbon analysis has helped archaeologists to refine chronological sequences and systematic surface

surveys in the country between the 1960s and the 1990s has resulted in valuable datasets for studying regional scale settlement patterns. However, even with these changes, to a great extent much of the archaeological information has derived from small scale excavations at a few selected sites. This is particularly true for research on the Late Neolithic (5000–4500 B.C.E.) in Eastern Hungary.

During the Late Neolithic, the Great Hungarian Plain was inhabited by multiple archaeological units: the Csószhalom, Tisza, and Herpály. Extensive archaeological research has been conducted at Tisza sites, but far less attention has been given to Csószhalom and Herpály sites resulting in a skewed interpretation of socio-cultural developments during the Late Neolithic. The Prehistoric Interactions on the Plain Project (PIPP) has set out to better contextualize the dynamic processes that resulted in cultural variation by modeling multi-scalar interactions between Herpály and Tisza sites. As part of an NSF funded project, in the summer of 2019 PIPP began intensive investigations at the Herpály site, Csökmő-Káposztás-domb. Previously it was assumed that Herpály sites consisted of small tells located on oxbows, with an external flat settlement located nearby. However, very little research has actually been conducted to support this conclusion. Large-scale magnetic prospection carried out at Csökmő-Káposztás-domb suggest that tell-centered Herpály settlement complexes are much larger and more multicomponent than previously suspected. In fact, Csökmő-Káposztás-domb appears strikingly similar in layout to Tisza settlements located nearby. This paper presents the results of PIPP's 2019 field season and compares the magnetometric results with other Herpály and Tisza sites nearby to draw new conclusions about settlement patterns, regional interactions, and sociocultural variability during the Late Neolithic.

New Archaeological Project in Southern Albania: Upper Kurvelesh (dist. Tepelenë)

Vera Klontza-Jaklova, Masaryk University, *Tom Pavloň*, Archaeological Institute of Czech Academy of Science, *Michal Hlavica*, Masaryk University, *Iveta Navrátilová*, Masaryk University, *Adam Geisler*, Masaryk University, *Tomáš Krofta*, Archaeological Institute of Czech Academy of Science, and *Manolis Klontzas*, Masaryk University and Archaia Brno

In our paper, we present results of the first season survey in the region of the Upper Kurvelesh, which has many special features. These include not only its topography and the absence of systematic archaeological research but also the lack of intensive agriculture, particularly plowing, which would have provided the primary archaeological information about human activities in the past. It means that we can neither easily find fragments of archaeological artifacts and ecofacts on the surface, nor can we observe the abnormalities in cultural vegetation. Therefore, we must mobilize other methods (topography, geology, hypothetical land use, water regime, roads, and their residues, architecture, anomalies in vegetation, historical memory, and others).

Our first goal, set after evaluation of 2018 preliminary survey season results, was to define the habitation area and its chronology in Gusmar. In the 2018 season pottery fragments and flint tools, revealed by erosion, were found on the SW slope. During the season 2019, the hill and the area around it were divided into topographical units (sectors A1 – A3, B1 – 24, C1 – 6) and each was systematically

surveyed. A few hundred ceramic sherds, dozens of flint tools or their fragments, fragments of metal artifacts and other materials were found. They confirm habitation during the Upper Paleolithic and Neolithic, Archaic, Classical, Hellenistic, Roman, and Early Byzantine periods. Abundant activities of WWII and the subsequent socialist period were also evident. The habitation area, north of the hilltop was much larger than initially supposed. On the hill itself, residues of architectural units (buildings S0001 – S0009, roads, terraces, etc.) were found.

One of our central aims for 2019 was to visit the so-called Ali Pasha Aquaduct in Bëncë and test if it was possibly Roman in origin. At least three rebuilding phases were recognized. The earliest part of the structure (eastern part) corresponds to Roman custom. The plasters used in each building/rebuilding phase are different; a number of Roman pipe fragments were found alongside the structure; the topography of the structure crossing the valley is typical for Roman syphons. Although a Roman origin is highly plausible, it must be still proved by detailed research.

We also realized ethnoarchaeological research, centered on so-called shepherds' shrines. A few interviews with the local inhabitants were conducted, and a few potential sites visited. The shrine in Stogu was measured and documented. We continued to look for other residues of habitation and land use around Nivica village. As far we are convinced that the Kurvelesh region was operating as a crossroad between two main roads following the Vjosa river and the coastal connection. It was also a source of the raw materials, water, food supplies, and provided a refuge in times of unrest.

Tear it Down, There's Got to be a Better Way: Changes in House Construction during the Copper Age

William P. Ridge, University of Illinois at Chicago

The Copper Age (4500–2800 B.C.E.) in eastern Europe is a period in which multiple social, demographic, and technological changes took place. Many of the long-lived tells and large regional centers inhabited throughout the Neolithic were abandoned; metallurgy and the movement of metal prestige goods transformed how social status was achieved and displayed; and the movement of groups from outside the region imported novel material culture and practices. A notable change also occurred to the construction of houses and other domestic structures. For many regions, the Neolithic is characterized by the construction of long-houses, some, dozens of meters in length. By the Copper Age, long-houses became less common place and settlements were populated with more modest-sized dwellings. For the period of approximately 4000 to 3500 B.C.E., there is little available data on domestic structures. This is due in part to limited research on settlements, but also may be due to another shift in construction practices, namely from above-ground to subterranean structures.

In this paper, I examine the long-term trajectory of house construction practices in the Great Hungarian Plain and surrounding regions. The goal is to determine when construction practices changed and to understand the possible social or environmental reasons behinds these changes. I draw comparisons with construction practices from other regions (e.g., Early Neolithic Greece) and later time periods (e.g., Early Iron Age; Medieval), as well as incorporate my own settlement research

on Middle Copper Age Hungary. Based on these various lines of data, it appears that the construction of pit-houses become more common around 4000 B.C.E., which may be related to both region-wide environmental and demographic shifts. This may also help explain the dearth of excavated domestic contexts from this period.

Facing Innovations: The Role of First Copper Objects in the Social Transformations in the Fifth Millennium B.C.E. in Southeast Europe

Marina Milić, University College Dublin, *Vera Bogosavljević-Petrović*, National Museum Belgrade, and *Robert Sands*, University College Dublin

This paper explores the role of the earliest copper tools in the transformation of social practices at the heart of stone-using Neolithic communities in the Balkan Peninsula in the fifth millennium B.C.E. This was a turning point for societies in southeastern Europe when a major technological innovation came to influence everyday practices, economies, value systems and social hierarchies. While the adoption of metallurgy has been widely explored, the consumption and craft practices of first copper object has rarely been evaluated. Our study focuses on copper axes, the earliest metal objects that were produced following the initial invention of metallurgy. The objects come from the modern-day states of Serbia, Romania, and Bulgaria, the birthplace of European metallurgy. Traditionally, axes have been at the heart of archaeological discipline, forming the basis for chronological and culture group determinations.

Using recent developments in 3D digital modeling and geometric morphometric analyses, this paper provides a new digital and statistical approach to the study of typological and technological characteristics of axes. The basis of our study is a comparative digital analysis of copper and stone axes found within four Vinča culture hoards from the site of Pločnik in southern Serbia (fifth millennium B.C.E.). We also include contemporary assemblages from neighboring regions. The axes are examined using 2D and 3D (point cloud) geometric-morphometric analyses allowing comparative and objective typological analyses.

The examination of material, shape, and functionality of axes helps us better understand morphological and functional relationships between the earliest copper axes their stone counterparts (skeuomorphism). The results shed new light on the impact and pace of adoption of this technological innovation, and how its dissemination and consumption relate to complex economic and symbolic transformations of the transitional later Neolithic / Chalcolithic period.

Never Let Go: Repaired Ceramic Vessels from the Neolithic Balkans

Gazmend Elezi, Cotsen Institute of Archaeology, UCLA

Repairing ceramic vessels is a common practice in the Neolithic Balkans and the Aegean that goes back to the Early Neolithic Period. At least two techniques were used to reassemble the broken vessels, piercing holes for lashing joining sherds across the break with leather or other natural fibers in combination with adhesive material such as plant based tar or natural bitumen and layers of clay.

Although repair-holes in potsherds are present in almost every single Neolithic excavation where pottery is present, scholars working in the region have not paid much attention to such a phenomenon. No systematic record of potsherds with repairing traces has been published so far. As a result, issues related to motivation, technology, or selectivity of the repairing practices are barely addressed. In this paper, I try to build on these issues by focusing mainly on three prehistoric sites in southeastern Albania. Although it is very difficult to trace the true reasons behind the act of mending, this study shows that neither the function nor the category or type of the vessels by itself could have motivated Neolithic users to repair them. The systematic record of the material from Kallamas, a Neolithic settlement on the shore of the Grate Prespa Lake, shows that vessels of different shape, dimension, color, or function preserve traces of repair. The economic aspects alone, on the other hand, cannot explain the geographical and diachronic extension of the phenomenon in the region. The lack of an aesthetic, typological, functional, or economic pattern may suggest that other reasons seem to have encouraged the repairing practices. I argue that aspects of the relationships between owners and their ceramic vessels, shaped through different social activities in which they were engaged, should be seriously taken into consideration to approach such a practice from a behavioral viewpoint.

Session 4E: Open Session Graves, Cemeteries, and Skeletons

Projecting the Dead: A Study of Media Use at the Cerveteri Necropolis and Other Mediated Etrurian Sites and Exhibits

Meryl Shriver-Rice, University of Miami, Abess Center for Ecosystem Science and Policy, and *Hunter Vaughan*, University of Colorado, Boulder

Media use in archaeological sites and museums has grown ever more complicated with the advent of digital technology, as emergent media—on-site 3D multi-projector installations, interactive multimedia components, augmented reality and virtual reality—are increasingly integrated into museums and archaeological sites. Such media integration needs to be critically examined through media studies, both from a social use of technology lens and philosophically through ethics and phenomenology, as sites from Stonehenge to the Roman Forum are increasingly mediated. In this paper we examine the on-site media projections in the tombs at the Banditaccia Necropolis in Cerveteri, Italy. By using the research methods of participant observation and sensory analysis of museum tours at Cerveteri, as well as comparative studies of other site-specific media use in Etruscan museum exhibits and ancient Etrurian sites, we will address issues related to: mediating spaces of the dead; materiality and the use of media installations in lieu of actual objects; and the use of mediated storytelling as a form of science communication. Comparative media assessed will include the wide-angle lens video installation at the Tomb of Hunting and Fishing at the Necropolis of Tarquinia; the 3D hologram of the Chimera statue at the Museo Archeologico in Arrezzo; the Museo Archeologico Nazionale di Firenze's looping video installation of the well excavations at

Chianti; and the rotating hologram of the Stele di Vicchio at the Museo di Arte Sacra Beato Angelico. Our findings suggest that, despite challenges to technological maintenance and execution, new diverse forms of multimedia communication and entertainment education surpass the limitations of traditionally written language and act as a strong means of sharing new information and experiential processes of archaeological practice at museum and archaeological sites in ancient Etruria.

The 2019 Season at the Necropoli del Vallone di San Lorenzo, Montecchio (TR), Italy

Sarah M. Harvey, Kent State University, *Gian Luca Grassigli*, Università degli Studi di Perugia, *Stefano Spiganti*, Independent Researcher, and *Francesco Pacelli*, Independent Researcher

During four weeks in July 2019 at the Etruscan period necropolis located at the località Raiano in the Vallone di San Lorenzo, part of the municipality of Montecchio in the province of Terni, Italy, a tomb was discovered and excavated. Although damaged by water and modern agricultural activity, it was buried under a deep layer of soil and clay and thus not disturbed by modern clandestine excavations, as was often the case with other tombs at the site. This tomb is of particular significance, having been built from blocks of travertine and having an entirely different style of tomb architecture than the rock cut tombs featured elsewhere at the site. The tomb might represent a unique example of an “aedicular” style tomb in this region; another possibility is that it is of the “dado” type.

Although culturally the necropolis is located in a region identified as Umbrian, it is not far from the left bank of the Tiber River at the boundary of the Etruscan territory, and by the sixth century B.C.E. may have been under the control of the Etruscans. As such, the unusual architecture of this tomb may be the product of external influences; furthermore, as it was larger than other tombs in the necropolis, it may have commemorated an important family, perhaps a family that had recently moved to the region.

The tomb is rich in artifacts from the Archaic and Classical period, including pottery, worked bone, metal, and glass paste objects; human bones were also found. The tomb was plundered in ancient times, but the artifacts discovered during excavation date to between the sixth and the fifth century B.C.E. Photogrammetry was used to record the progress of excavation, and the three dimensional images will be shown during the presentation.

The Roman Cemetery at Tel Dor in Context

Alexandra Ratzlaff, Brandeis University, and *Dor Golan*, Israel Antiquities Authority

Excavations conducted from 2017–2019 in the area immediately north of the coastal city of Tel Dor, under the auspices of the Israel Antiquities Authority, yielded a newly discovered Roman cemetery dating to the first/second century C.E. The cemetery included a large stone mausoleum, with fragments of a sarcophagus, and at least eight rock-cut cist tombs. While the majority of the tombs were

robbed, those that were not looted present an interesting array of grave goods that reflect a range in social stature among the cemetery's occupants. The presence of the large stone mausoleum in and of itself suggests an investment of personal wealth, while several of the undisturbed cist tombs contained a variety of items from luxury goods to common daily objects. Overall, the excavation of this cemetery contributes a new dimension to our understanding of the population at Tel Dor during the early Roman period, for while monumental structures have been excavated on the tel, relatively little is known about the actual Roman population living there. This paper will include discussions of the tombs and mausoleum, associated pottery, and other grave goods, as well as addressing the mixed nature of the various burial types, with the aim of contributing new information to our knowledge of aspects of the cultural identity of the early Roman population at Tel Dor and to give the cemetery both a regional and provincial context by comparanda. Analysis of this site also helps to further understand the extent of Dor's physical city limits during the Roman Imperial period.

It's a Hard-Knock Life: Childhood on Chryssi Island, Greece

Susan Kirkpatrick Smith, Kennesaw State University, *Melissa Eaby*, Institute for the Study of Aegean Prehistory, Study Center for East Crete, and *Chryssa Sofianou*, Ephorate of Antiquities of Lasithi

Very little is known of the life of Byzantine children, and even less of Byzantine children as told through their physical remains. The 2016 excavation of a cist grave on Chryssi Island, off the southeast coast of Crete, under the direction of Chryssa Sofianou for the Lasithi Ephorate of the Greek Ministry of Culture, will help rectify this lack of information. The grave was built into the collapsed remains of a Late Minoan building. There were no grave goods present, however, there were several iron nails present that were contemporary with the burials. The grave, which likely dates to the sixth to seventh century C.E., contained the remains of a minimum of twenty individuals. Other than one adult male, all other remains were highly comingled. The remains of one prenatal individual was found in several layers of the grave and could be reassembled based on size. The rest of the skeletal remains were considered by skeletal element only.

Of the twenty individuals, at least eight were children, ranging in age from prenatal to early- to mid-teens. The children's remains are significant for their high frequency of pathological conditions, traumatic injuries, and enthesopathies (evidence of overuse of muscles caused by repetitive activity) usually seen only in adults. These skeletal pathologies indicate that children living on Chryssi Island in the Byzantine period endured great hardship, pain, and likely abuse in their short lives.

The Himera Dwarf: Bioarcheological and Genetic Analyses of an Ancient Adult Greek Skeleton with Achondroplasia

Robert J. Desnick, Icahn School of Medicine at Mount Sinai, *Stephen Clayton*, Max Planck Institute for the Science of Human History, Jena, Germany, *Pier Francesco Fabbri*, Università del Salento, Lecce, Italy, *Stefano Vassallo*, Soprintendenza Beni

Culturali, Regione Siciliana, Palermo, Italy, *Norma Lonoce*, Università del Salento, Lecce, Italy, *Julie Herzig-Desnick*, The Institute of Fine Arts, New York University, *Alissa Mittnik*, Harvard Medical School, and *Johannes Krause*, Max Planck Institute for the Science of Human History, Jena, Germany

Among the more than one-hundred human skeletal dysplasias, Achondroplasia is a form of short-limbed dwarfism compatible with adult life. It is the most common skeletal dysplasia and occurs in about one in 15,000–25,000 births. Although the short-limb phenotype was described in ancient literature and iconography, the radiologic and clinical features of Achondroplastic dwarfs were only definitively characterized in 1967, and the molecular genetic defect was identified in 1994. Over 95% of unrelated Achondroplastic dwarfs have a common mutation in the FGFR3 gene, c.1138G>A (p.G380R). In 2009, a partial dwarf skeleton, datable according to archaeological evidence between 525 and 409 B.C.E., was discovered in the western necropolis of Himera, a Greek colony in Sicily, established in 648 B.C.E. and destroyed in 409 B.C.E. by the Carthaginian army under Hannibal Mago. We characterized its skeletal phenotype and molecular genotype using anthropologic, phenotypic, and genome DNA sequencing analyses to determine the type of skeletal dysplasia, its sex, approximate age, and specific dwarf-causing genetic mutation. Paleopathological analysis suggested that the most probable diagnosis was Achondroplasia. X-rays of the skeleton were independently reviewed by two skeletal dysplasia experts, Drs. Ralph Lachman (Stanford University) and Jurgen Spranger (U. Mainz), who independently confirmed that the most likely diagnosis was Achondroplasia. Radiological pulp tooth ratio studies indicated the dwarf was 30 to 35 years old. C14 dating studies of petrous bone indicated that the dwarf was about 2,650 years old (Cal2-sigma B.C.E. 809-596), with the caveat of the Hallstatt plateau. Genomic DNA was extracted from petrous bone and then sequenced, which identified Y-chromosomal genes and multiple sequencing reads of the common Achondroplasia mutation, c.1138G>A, confirming the anthropologic assessment. Further deeper sequencing and population genetic analysis to assess the dwarf's ancestry are underway. To our knowledge, this is the first ancient inherited birth defect in which the specific causative gene mutation has been identified.

A Late Roman and Early Medieval Cemetery at the Roman Villa of Vacone

Devin L. Ward, University of Toronto, *Dylan Bloy*, University of Tennessee, *Gary Farney*, Rutgers University Newark, *Tyler Franconi*, Joukowsky Institute for Archaeology and the Ancient World, Brown University, and *Candace Rice*, Joukowsky Institute for Archaeology and the Ancient World, Brown University

Human remains interred in the ruins of Roman villas illuminate the complex transitional period at the end of the Roman era. This paper explores the late-antique and early-medieval burials from the Roman villa of Vacone to elucidate the life of the villa site after its abandonment and destruction. Our excavations have identified burials of five adults, five sub-adults, four neonates as well as numerous fragments of human remains probably associated with disturbed burials, all falling within two stages of use.

The first stage is represented by four sub-adult burials cut into the villa collapse above an *opus spicatum* floor surface in the northeastern corner of the site. One was buried in a third-century African amphora, two were buried along a wall bounded by upright stone and tiles, and the last was buried in the middle of the floor. One of the individuals buried along the wall was interred with the remains of a bird by the skull (calAD 76-212). These remains were buried very shortly after the collapse of the villa, and indicate a rapid change in the perceived function of this previously elite site.

The second stage is represented by at least five adult male individuals and one sub-adult, all dated to the seventh century C.E. One was interred with a bronze ring (calAD 658-769) close to the earlier sub-adults. The others were interred in the southwestern corner of the villa. This early-medieval period of activity gives insight into rural life during the era of Lombard rule in central Italy, and provides perspectives on the lived experience of the post-Roman countryside.

The burials at Vacone demonstrates that Roman monuments remained important markers of the early medieval landscape of central Italy, the purposes of which continued to be negotiated and reimagined in a changing society.

Session 4F: Workshop Behind the Scenes: Choice, Pigment, and Materiality in the Ancient World

Sponsored by the Ancient Painting Studies Interest Group

Moderators: *Marie N. Pareja*, University of Pennsylvania, and *Hilary Becker*, Binghamton University

Workshop Overview Statement

Advancements in scientific cultural heritage allow us to see more about the material choices behind the technology and artistry of ancient objects and the pigments used to decorate them. Artists and craftspeople make decisions based on multiple factors when painting (or dyeing) an object: pigment availability and quality, technical knowledge, economic aspects, and its possible inherent symbolism. This workshop addresses issues of choice and materiality when planning and executing projects involving color. Although aspects of painting, plastering, and dyeing technologies are considered relatively standard, deviations from the expected norms and the resulting implications for both the visual and value-related effects are explored. Presentations cover a wide chronological range but repeatedly return to issues fundamental to pigment choice, a pigment's properties, and the perceived meaning(s) of a particular color. The artists' extensive knowledge of pigments and their properties is clear—deviations from the typical uses of pigments can reflect an even more nuanced understanding and perception of color. Three papers highlight these aspects in particular: the examination of blue and green pigments from Neolithic Çatalhöyük, an analysis of the pre-Flavian wall paintings from Nijmegen, as well as the considerations of Roman artists (e.g., chemical incompatibilities, fraud, and quality) when shopping for pigments.

This workshop also integrates discussions of three synthetic pigments created by distinct cultures: Egyptian blue, Chinese blue, and Cobalt blue. A discussion of the chemistry and production of these three blues together makes it possible to explore the technology of these man-made pigments and their properties. This exploration is continued with a paper highlighting the recent study of a late-Hellenistic to Roman pigment production center at Kos, which featured evidence for the production of Egyptian blue, among other things. The examination of blue extends to textiles as well, and the problematic nature of the use of this color in the Bronze Age Aegean—as both paint and dye—is explored. The high value of blue does not necessarily detract from the use of other pigments, as suggested in the final session presentation, which examines the techniques and perceived values unique to green in Roman art.

The perspectives of art historians, archaeologists, and conservation scientists coalesce in a workshop that encourages spirited discussion amongst panelists and audience members. These conversations will help to build a deeper understanding of the varied and nuanced realm of pigments, materiality, technology, and choice in the prehistoric and ancient world.

Panelists: *Duygu Çamurcuoğlu*, British Museum, *Ruth Siddall*, University College London, *Marie Nicole Pareja*, University of Pennsylvania, *Luc Megens*, Cultural Heritage Agency of the Netherlands, *Lara Laken*, University of Nijmegen, *Yuan Lin*, *Krystal Cunningham*, *Federico Carò*, *Ioanna Kakoulli*, and *Ariadni Kostomitsopoulou Marketou*, University of Oslo, *Elizabeth Molacek*, University of Texas, Dallas, *Hilary Becker*, Binghamton University, *Emily Egan*, University of Maryland, and *Shana O'Connell*, Howard University

Session 4G: Open Session

Fieldwork from the Prehistoric Mainland

Gourimadi Archaeological Project: Preliminary Results of the Second Excavation Season

Zarko Tankosic, Norwegian Institute at Athens/Indiana University, *Fanis Mavridis*, Greek Ministry of Culture and Sports, Ephorate of Palaeoanthropology-Speleology, and *Paschalis Zafeiriadis*, University of Cincinnati

The second season of the Gourimadi Archaeological Project (GAP), an excavation project in southern Euboea, Greece, under the aegis of the Norwegian Institute at Athens, was completed in the summer of 2019. The site of Gourimadi occupies the summit and slopes of a prominent hill on the southern edge of the Katsarionio plain, approximately 5 km northwest from Karystos. The excavation continued in the two trenches first opened in 2018. The trenches produced a wealth of archaeological material, consisting of pottery, lithics (mainly obsidian), and architectural remains comprising of both straight and curved walls. The quantity and quality of architectural remains, most of which are concentrated in trench 1, is particularly intriguing. At the end of the 2019 season, we have isolated

at least eight architectural features and at least three construction phases in an area of 28 m². In addition, we discovered remains of a clay-built domed hearth and a roughly circular stone-built structure, which could have supported a large post. The evidence indicates the existence of massive multiple structures at the summit of the Gourimadi hill, at least one of which was apsidal. More than 130 obsidian projectile points, as well as the associated debitage and other tools suggest that the site was an important lithics production and consumption center. The ceramics dates Gourimadi chiefly in the early to middle part of the fourth millennium B.C.E. (Final Neolithic), with evidence of earlier (Late Neolithic) and later (Early Bronze I) phases scarce, but present. A human skull placed on its base was also found in what we originally thought of a refuse area in trench 1. In this paper, we present the evidence collected in 2019 and place it in its regional context. We also offer initial interpretations on the nature of Gourimadi and its position in the Neolithic and Early Bronze Age Aegean world.

Prehistoric Thorikos (Greece, Attica): Preliminary Results from the Settlement

Sylviane Déderix, Université catholique de Louvain, *Nikolaos Papadimitriou*, Universität Heidelberg, *Anthi Balitsari*, Université catholique de Louvain, *Gianluca Cantoro*, GeoSatReSeArch, IMS-FORTH, *Aspasia Efstathiou*, Agora Excavations, ASCSA, *Margarita Nazou*, National Hellenic Research Foundation, and *Robert Laffineur*, Université de Liège

The site of Thorikos occupies the slopes of the Velatouri hill, along the south-east coast of Attica. Thorikos is the most important Bronze Age site known in the Lavrion, a region of strategic importance due to its metal resources. The discovery of Final Neolithic pottery outside Mine 3 suggests that the ore that was readily available as surface outcrops was exploited as early as the late-fourth millennium B.C.E. The Early Bronze Age is insufficiently known. Considerable amounts of pottery have been found in Mine 3, suggesting more systematic exploitation of argenteriferous ores, but habitation remains are elusive. Thorikos was involved in regional networks of exchange during the Middle Bronze Age, and monumental tombs were constructed on the acropolis of the Velatouri during the early Mycenaean period, demonstrating that Thorikos had become a major center ruled by an elite by the beginning of the Late Helladic period. However, the economic, social, and political changes that took place at the site between the Late Neolithic and the Late Bronze Age are poorly understood, notably due to the scarcity of settlement data. In 2018 the Belgian School at Athens started a new five-year project (dir. Prof. R. Docter) at Thorikos, one of the main aims of which is to study, publish, and contextualize excavated prehistoric buildings on the Velatouri. This presentation reports on the results of the 2018 and 2019 campaigns. The settlement remains excavated by Stais (1890s) on the Great Velatouri were cleaned, recorded in 3D and studied, and the findings from the small trenches excavated by Servais (1960s) in the surroundings were examined. In parallel, the acropolis and the east and north slopes of the hill were surveyed, leading to the identification of potentially prehistoric buildings and providing new information on the extent of the prehistoric settlement of Thorikos.

The Kotroni Archaeological Survey Project (KASP) at Ancient Aphidna in Northern Attica: Results of the First Season (2019)

Eleni Andrikou, Ephorate of Antiquities of East Attica, *Anastasia Dakouri-Hild*, University of Virginia, *Steve Davis*, University College Dublin, *Athos Agapiou*, Cyprus University of Technology, *Philip Bes*, Independent Scholar, *Tim Kinnaird*, St. Andrews University, *Will Rourk*, University of Virginia, *Kalliopi Sarri*, University of Copenhagen, and *Anastasia Yangaki*, National Hellenic Research Foundation

The contemporary site of Kotroni is located about 30 km north of Athens, near the modern town of Kapandriti. Situated in the northern part of Diacria, the site lies to the north of the river Marathon which feeds the Marathon reservoir today. In the early-nineteenth century, G. Finlay described an isolated hill rising “to the height of several hundred feet. On its summit there are remains of an ancient fortress, and traces of habitation on its sides [...] the hill is beautifully situated overlooking the fine undulated and well-wooded country through which the river of Marathon flows.” The citadel has been identified as the center of the ancient, constitutional demos of Aphidna, and alleged to have been one of the original twelve districts which the legendary King Cecrops II brought together initially to create the *polis* of Athens, with the process of synoecism completed by the founder hero of the city, Theseus. KASP explores this significant diachronic archaeological landscape within its environmental, geographical, and cultural landscape utilizing a combination of historical research, digital applications, and conventional field techniques, such as survey. The project systematizes piecemeal information about this landscape known to scholarship since the nineteenth century and substantially and non-destructively augments the record by means of systematic collection of surface artifacts, remote sensing, geophysics, geological, and geomorphological analysis. The current paper presents the results of the first season (2019), including the outcomes of remote sensing analysis, airborne LIDAR and aerial image modeling, geoarchaeology and intensive survey. In particular, we confirm the location of the Middle Bronze Age tumulus, hitherto lost to scholarship; produce evidence for habitation and metallurgical and ceramic production in the vicinity of the citadel; and identify several new sites dating from the Classical to the Late Roman eras around the citadel.

The Natural and Cultural Environment of Southern Phokis: The Plain of Desfina

Andrew Koh, Massachusetts Institute of Technology, *Ioannis Liritzis*, University of the Aegean, and *Ian Roy*, Brandeis University

This investigation of the natural and cultural environment of the Desfina Plain in Southern Phokis of Central Greece was inspired by an ongoing study of mainland interconnections with East Crete and the Levant during the Late Bronze-Iron transition by Koh in conjunction with a lifelong perspective of the region by Liritzis. This present investigation builds on J. McInerney’s foundational studies of the topography and history of Phokis (1999, 2011) and draws on a transdisciplinary blend of traditional, digital, and archaeometric techniques to undertake

a comprehensive ecological, environmental, ethnohistorical, and topographical study of Southern Phokis.

Sandwiched between Achaea and Boeotia, long-recognized centers of past human activity, the Desfina Peninsula has been characterized as a relatively nondescript pastoral landscape throughout history as far back as the Bronze Age. Yet initial ceramic studies suggest a more networked reality, a landscape that drew inspiration from adjacent regions through contacts, but produced fine pottery of its own accord with local resources. This self-sufficiency was perhaps even necessary due to prominent geographic features (e.g., Corinthian Gulf, Peleistos River Valley) that naturally demarcate mountainous Southern Phokis from its better-known neighbors, which encouraged maritime connections for trade and exploration early on as evidenced by the nearby Mycenaean coastal acropolis at Steno.

Our preliminary study of the Desfina environment, buttressed by targeted excavations at the fortified Late Helladic III site at Kastrouli (ca. 1200 B.C.E.), indicates that the peninsula was more than a simple pastoral outpost supplying surrounding regions with livestock. Evidence for ambitious hydrological and transportation works projects dispersed throughout intra-plain settlement pattern units that were likely coordinated (e.g., lake drain, Cyclopean road terraces) along with abundant remains of an ancient marine diet up in the plain attest to a level of complexity and interconnectivity previously overlooked. In the shadows of Mount Parnassos, yet its own entity as a high-altitude plain shielded by the local promontory of Mount Kirfis, the rich natural and cultural environment of the Desfina “*mesokampos*” makes the best case yet to be not only the home of the classical *polis* of Echedameia, destroyed by Philipp during the Sacred War, but also Anemoreia (*Iliad* 2.521) with its closely associated plain (Lycophon, *Alexandra* 1073).

Excavation and Survey at the Sanctuary of Zeus at Mt. Lykaion, Summer 2019

Mary E. Voyatzis, University of Arizona, David Gilman Romano, University of Arizona, and Anna Karapanagiotou, Director of Arcadian Ephorate of Antiquities

During the summer of 2019, excavation and survey continued at the Sanctuary of Zeus at Mt. Lykaion. The project is under the direction of the Arcadian Ephorate of Antiquities, Tripolis, together with the University of Arizona, and under the auspices of the American School of Classical Studies at Athens. Excavation resumed at the ash altar of Zeus on the southern peak of the mountain at 1,382 m and in the lower mountain meadow at 1,182 m. The most notable discovery from the altar was the huge volume of EH and MH coarse ware from a previously unexcavated area to the east of the stone platform. Additional ceramic evidence consists of LH drinking vessels, animal figurines from the Mycenaean shrine, and further evidence for continued activity into the Early Iron Age. From later periods are bronze miniature tripods, coins and later ceramics. In the lower sanctuary, the administrative building revealed several floor layers, and a bronze hand of Pan holding a syrinx. The stone corridor that served as a processional way from the heart of the sanctuary to the stadium and hippodrome yielded a line of blocks, leading towards the stone arch from the north. In the Classical stoa, more of the Byzantine phase of occupation was uncovered at the west end, and part of the rear retaining wall of the stoa was exposed. Nearby, where we are searching

for the Sanctuary of Pan, several walls and water basins were discovered, plus sherds from a red figure vessel. A prostyle Ionic building, originally excavated by Kourouniotis and recently rediscovered, was completely cleared this summer. Pedestrian survey continued in the village of Ano Karyes and immediately surrounding the Sanctuary of Zeus. The Greek Archaeological Service worked at the altar, at the Agno Fountain, and in the Bath facility.

The 2019 Bays of East Attica Regional Survey (BEARS) Project: New Evidence for the Archaeology of the Bay of Porto Raphti

Sarah C. Murray, University of Toronto, *Catherine Pratt*, University of Western Ontario, *Robert P. Stephan*, University of Arizona, *Maeve C. McHugh*, University of Birmingham, *Grace K. Erny*, Stanford University, *Katerina Psoma*, University of Illinois at Chicago, *Bartek Lis*, British School at Athens, *Melanie Godsey*, University of North Carolina-Chapel Hill, *Margarita Nazou*, National Hellenic Research Foundation, *Dimitri Nakassis*, University of Colorado-Boulder, and *Philip Sapirstein*, University of Toronto

This paper presents the findings of the inaugural season of the Bays of East Attica Regional Survey project (BEARS). Operating in Greece under the auspices of the Canadian Institute in Greece and with the oversight of the East Attica Ephorate of Archaeology, the project aims to clarify the history of human activity around the bay of Porto Raphti in eastern Attica. In June 2019, BEARS conducted the first of three planned seasons of intensive and extensive surface survey. The work especially concentrated on developing a clearer understanding of the chronology and nature of finds in three areas around the bay with known surface assemblages: the Pounta peninsula, Raptis island, and the valley and acropolis of the Koroni peninsula. Surface finds from the Raptis island demonstrate that this was the location of a major Late Helladic IIIC settlement probably linked to the cemetery at Perati, as well as limited Late Roman (sixth–seventh century C.E.) occupation. The Pounta peninsula yielded an extraordinary quantity of obsidian lithics, indicating significant activity during the Final Neolithic/Early Bronze Age, with lesser quantities of material dated to the Late Helladic IIIC and Roman/Byzantine periods. At Koroni, surface finds of Late Helladic IIIC and Archaic/Classical date indicate that activity on the site predates the third-century Ptolemaic military camp excavated by American archaeologists in the 1960s. For the Hellenistic period, a high quantity of imported amphoras and fine wares constitutes robust evidence that the population of the area was integrated into the southern Aegean economy. Overall, these survey data provide a remarkable range of new evidence and insight into the history of the Porto Raphti area and its connections to other regions of the Aegean. Methodologically, the project's work also demonstrates the value of conducting extensive and intensive survey even in areas with extensive modern development.

Session 4H: Workshop Antiquities, Illicit Trafficking, and Public Advocacy: The Future of the 1970 UNESCO Convention

Sponsored by the Cultural Heritage Committee

Moderator: *Elizabeth S. Greene*, Brock University

Workshop Overview Statement

The year 2020 marks the fiftieth anniversary of the 1970 UNESCO Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property. This international treaty was enacted to help curb unauthorized exploitation of archaeological sites around the world. Following fifty years of implementation, what has changed about museum acquisitions policies, legal and illicit trade in antiquities, and the protection of archaeological sites? Where has this international law succeeded and how effective are the implementation processes of different States? What additional efforts are needed for future heritage protection? What issues remain to be addressed as archaeologists continue to report discoveries of newly looted sites? Conflict-related looting has proliferated in Syria, Iraq, Afghanistan, and elsewhere; illicit trade in antiquities now draws new actors, including terrorist networks. The museum community also faces new questions about cultural objects taken under colonialist systems, where the non-retroactive nature of the Convention offers little guidance on claims of restitution.

In light of these and other current issues, this workshop brings together scholars of the 1970 UNESCO Convention and its impact on archaeological research and illicit trafficking, experts in the international art and antiquities trade, and policymakers who address legal implementation. Workshop participants will offer brief reflections on the 1970 Convention's impact on their own areas of expertise in order to promote conversation about what constructive role the AIA, museums, and policymakers might play in the future. The goal is to consider priorities for the preservation and ethical treatment of cultural property moving forward. This workshop also recognizes the contributions of Patty Gerstenblith, recipient of the AIA's 2020 Outstanding Public Service Award. By discussing the future of the 1970 UNESCO Convention—and the AIA's role in public advocacy—we honor her longstanding efforts to protect archaeological heritage across the globe

Panelists: *Patty Gerstenblith*, Center for Art, Museum & Cultural Heritage Law, DePaul University, *Neil Brodie*, University of Oxford, *Christina Luke*, Koç University, *Morag Kersel*, DePaul University, *Brian I. Daniels*, Penn Cultural Heritage Center, University of Pennsylvania, *Laetitia LaFollette*, University of Massachusetts, and *Richard M. Leventhal*, Penn Cultural Heritage Center, University of Pennsylvania

Session 4I: Colloquium Surveying the Punic World

Organizer: *Peter van Dommelen*, Brown University

Colloquium Overview Statement

Phoenician and Punic archaeology has always been a field both literally and figuratively on the margins of the Classical world, as the rise to power and expansion of Carthage have invariably received most attention in Classical scholarship, no doubt because of the impact that the city and its overseas regions had on Rome at a crucial stage of the development and expansion of the Roman Republic. Carthage was however so much more than just Rome's nemesis or antithesis. In antiquity, the city was not only widely known for its maritime and commercial achievements, but it was also highly renowned for its agricultural production that stood out for its quality and quantities—it is no coincidence that Varro brought a fig from Carthage to the Senate in support of his famous indictment of Carthaginian wealth and power. How well regarded the Punic agronomic skills were, is best demonstrated by the order of the Roman Senate in 146 B.C.E. to translate all twenty-eight volumes of agricultural expertise that Mago the Agronomist had compiled sometime in the fourth century B.C.E.

It is against this background that since the early 1990s a number of intensive and systematic archaeological surveys have been undertaken across the various regions of the Punic world, from southern Tunisia and Malta to Sardinia and from southeastern Spain and Ibiza to Atlantic Morocco: by 2008, seventeen such projects were on record that constituted the database for discussing the Rural Landscapes of the Punic World (van Dommelen and Gómez Bellard 2008). The result was a new awareness of the rural dimensions of Carthaginian domination and exploitation of the overseas Punic districts that included both abundant new settlement evidence and fresh insights into Punic agricultural practices.

The last few years have seen a renewed interest in and, especially, a remarkable increase of new activities in this field, that may likely be defined as a 'new wave' of surveys across the Punic regions. These new projects can not only draw on a much-improved knowledge base of Punic pottery, including coarse wares, that greatly facilitates dating and interpretation of surface finds, but they also avail themselves of the huge technological advances that have transformed modern archaeological surveys elsewhere in the Mediterranean.

The aim of this session is in the first place to take stock of the new fieldwork that is being undertaken in North Africa, Sicily, Sardinia, and Spain, and to compare and contrast initial new results. In the second place, this session is also organized in order to take a fresh look at the Punic countryside and its colonial connections in the light of the new survey data and other recent excavation evidence, and to compare these to recent work on Roman Republican colonization that is similarly transforming our understanding of developments on the Italian mainland during the later centuries of the first millennium B.C.E.

Sinis Archaeological Project: Results from the 2018 and 2019 Seasons of Landscape Survey in West-Central Sardinia

Linda Gosner, University of Michigan, *Alexander Smith*, The College at Brockport – SUNY, and *Jessica Nowlin*, University of Texas at San Antonio

The Sinis Archaeological Project (SAP) is a new regional survey in west-central Sardinia that explores the landscapes of the Sinis Peninsula and adjacent territories from multi-scalar, diachronic perspectives. The survey region encompasses agricultural plains, coastal areas with marshes and lagoons, mountains, and rolling hills. In antiquity, these landscapes provided local inhabitants and foreign colonizers and traders with an array of natural resources such as agricultural products, metals, salt, and other marine resources. While many Mediterranean surveys—and those focused on the Punic world in particular—have traditionally focused on agricultural landscapes, SAP is designed to provide a broader picture of rural settlement and resource exploitation in these diverse ecological landscapes of the Sardinian countryside in the past.

While the wider project takes a diachronic perspective from antiquity through the present day, this paper focuses on our evidence for the Punic and early Roman periods. We provide an overview of our project methodology, which incorporates traditional Mediterranean-style pedestrian survey alongside remote sensing techniques, including multispectral satellite and drone reconnaissance and recording. We take an explicitly multi-scalar approach, integrating intensive site-based survey and targeted excavation at the smallest scale, with pedestrian survey at the intermediate scale, and regional reconnaissance at the largest scale. We present the results of this methodology in action through a discussion of our first two seasons of fieldwork (2018–2019) in two of our four survey zones. The first, Zone A, consists of agricultural plains centered on the large indigenous settlement of S'Urachi; our work there contextualizes the current excavations at the site in their wider landscape and builds upon our site-based survey of S'Urachi completed in 2017. Our second zone, Zone B, is located in the coastal territory immediately to the west, which contains seasonal lagoons and salt flats. Comparing these two distinct regions provides a nuanced picture of the varied strategies of Punic colonization, settlement, and exploitation of rural landscapes. Ultimately, our project provides a new perspective on the Punic landscapes of west-central Sardinia as well as a model for survey of varied ecological landscapes of the in the wider Mediterranean.

Punic Settlement in the Interior of Sulcis: New Data from the Landscape Archaeology of Southwest Sardinia Project

Thomas P. Leppard, Florida State University, *Andrea Roppa*, Università degli Studi di Padova, and *Elizabeth A. Murphy*, Florida State University

Interest in Punic settlement has been perennial in Sardinian archaeology. This is especially the case in the southwest of the island, where major Punic coastal sites—including Nora, Bithia, Karaly, and Sulky—cluster. As a result, the general patterns of littoral settlement are fairly well understood: initial development at these large coastal sites, linking the island to wider transmaritime networks,

followed by later expansion of farmstead settlement into the wider landscape from the fourth century B.C.E. (Barreca's "capillary" phenomenon). However, the Punic settlement of the interior of Sulcis is not well understood (complicated by apparent cessation of nascent urbanizing processes at the major site of Pani Loriga), and neither is the larger political and economic process that capillary landscape in-fill-ing represents. Here we report new data germane to these problems, data derived from the Landscape Archaeology of Southwest Sardinia (LASS) Project. Over three seasons LASS has conducted intensive pedestrian survey in the interior of Sulcis, clarifying hitherto poorly understood rural settlement. We discuss evidence for expanding Punic settlement in the aftermath of the end of activity at Pani Loriga, and contextualize this within wider Sardinian and western Mediterranean trends.

Questioning Colonization: Lixus and Economic Development in the Oued Loukkos, Morocco

Stephen A. Collins-Elliott, University of Tennessee, Knoxville

The identity of the city of Lixus (near Larache, Morocco) as a Phoenician colonial settlement is well known, and has its roots in classical textual sources. Yet, the need to take an integrated view to the urban development of Lixus in the context of its hinterland is apparent. Furthermore, recent interrogation of the categorical boundaries of Phoenician and Punic identity shows the importance of clearly articulating the cultural and political dimensions of those labels with respect to both sociohistorical phenomena and the material record. This is especially the case when examining the rural economy of the valley of the Oued Loukkos which comprises Lixus's hinterland, currently the focus of the ongoing Moroccan-American archaeological project Gardens of the Hesperides: The Rural Archaeology of the Loukkos Valley. While the site of Lixus shows evidence of Early Iron Age occupation, and while Archaic Phoenician red slip ware had previously been located at sites up river, detecting instances of what might be called colonial interactions in the mid-to-late first millennium B.C.E. remain elusive for the countryside around Lixus. Increased investment in rural infrastructure appears largely to have taken place in the last few centuries B.C.E., a trend not owed to any colonial or overseas causes. Particularizing other aspects of Lixus's political economy also shows the degree to which Lixus can be viewed on its own regional terms: coinage, likely issued from the second century B.C.E. onward, have been shown to have had a shared metrology with Gadir across the Strait of Gibraltar, but with a highly local iconography. The epigraphic record, though rare at Lixus, attest to not just the use of Phoenician/Punic, but Libyan as well. Taking a broad view of Lixus within the regional ambit of the Oued Loukkos, this paper argues that to a significant degree regional economic development should be taken as owed to local, endogenous factors, rather than the product of colonial interactions from abroad.

A Landscape Full of Resources: Rural Exploitation of Qart Hadasht's Hinterland during the Late Third Century B.C.E.

Victor Martínez Hahn Müller, University of Gent, Belgium, *Roald F. Doctor*, University of Gent, Belgium, *José Miguel Noguera*, University of Murcia, Spain, *Carmen Ana Pardo Barrionuevo*, University of Almería, Spain, and *Elle Liagre*, University of Gent, Belgium

After Hamilcar Barca arrived on the Iberian Peninsula in 237 B.C.E., the Carthaginians founded several cities, all of which unfortunately remain unknown, with the one exception of Qart Hadasht, which the Romans would later call “Cartago Nova.” Even if Carthaginian rule in Iberia lasted only for a couple of decades, the foundation of these major settlements may be associated with their systematic exploitation of natural resources on the Iberian Peninsula.

In order to explore and assess the intensity of Carthaginian exploitation of territorial resources in Iberia and to define Carthaginian modes of exploitation on the Peninsula, we have begun to investigate through archaeological surveys the hinterland of the Barcid colony of Qart Hadasht (Cartagena, Murcia, Spain). Our study area between Trujillo and the Ramblas of Carrasquilla (Campo de Cartagena) was not only rich in metals, especially silver and lead, but may also have offered other resources in abundance. Our main hypothesis is that the Carthaginians, unlike the Romans after them, took advantage of these, and developed small sites to function as salt-mines, farms, fishing centers, and stone quarries.

The preliminary results that we will present show the connections of mining with other economic activities in especially the Carthaginian period. We will also look into methodological difficulties that are specific to mining landscapes because of the constant presence of metal slag on archaeological sites. We will finally present our results of a volume study of the large slag heaps created by Carthaginian exploitation in order to assess the productivity of these mining operations.

Punic Southwest Sicily: Whose Hinterland?

Victoria Moses, University of Arizona, *Emma Blake*, University of Arizona, *Robert Schon*, University of Arizona, *Rossella Giglio*, Soprintendenze Archeologica, Trapani, Italy, and *Alena Wigodner*, University of Arizona

The Arizona Sicily Project (2018–ongoing) is an intensive pedestrian survey of the coastal zone between the Sicilian cities of Marsala and Mazara del Vallo. While this diachronic project seeks to chart the ties between North Africa and western Sicily in all periods, this paper focuses on the evidence dating to the Punic and early Roman periods, when the zone was under Carthaginian control and immediately after. This survey is the first to document systematically the Punic period in this countryside, and thus contributes to prior work at Motya and Marsala (Lilybaeum) in the Punic period. We present our methodology, data, and preliminary analysis of Punic materials and sites found in the survey zone. Drawing on this new data and the results of an earlier survey north of Marsala, this paper considers the local impact of Carthage, given its proximity across the Sicilian Channel. We interrogate the degree to which Carthage itself was transformative to rural residents in our zone, compared to its colonies on the Sicilian coast. In other words,

beyond a general identification of this as a “Punic” countryside, did Carthaginian influence significantly affect settlement in the territory, to a greater extent than the influence of the Punic cities present on Sicily itself?

Discussant: *Elizabeth Fentress*, University College London

Session 4J: Joint AIA/SCS Workshop Humanities Publishing in Transition

Sponsored by the Forum for Classics, Libraries, and Scholarly Communications

Moderator: *Deborah E. B. Stewart*, University of Pennsylvania

Workshop Overview Statement

As the ecosystem for scholarly communications evolves, students and scholars in Classics, history, and archaeology must remain informed about current issues and emerging trends in disseminating and curating scholarship through print and digital publications, open repositories, archives, and libraries. Forming a discussion panel for this workshop are two faculty members who have embraced online media for scholarly communications and edit open-access publications in our disciplines, two editors from established university presses that produce digital editions on various platforms, and two subject librarians who provide author advisory services, manage collections budgets, and select materials in Classics and archaeology.

After introducing themselves and their experiences with scholarly communications, the panelists will engage in a moderated discussion about what authors—whether already published or aspiring to publish—should understand about academic publishing and media in the twenty-first century. In addition to any significant, recent newsworthy items about scholarly publishing, topics for discussion will include:

- What publishing venues should an early-career author prioritize? What resources are available to authors seeking to understand their rights and contracts with publishers?
- How can scholars share their data, methods, analysis, and/or manuscripts openly and responsibly? If deposited openly, how can they make their work more discoverable?
- How can scholars use online media to build a profile, receive feedback on works-in-progress, and share their scholarly work with a wide network?
- How do hiring, promotion, tenure, and reappointment committees evaluate scholarly communications outside of traditional journal and monograph publishing? How can scholars participating in online scholarly communications leverage their work with potential employers or publishers?
- What viable business models for open-access publications and/or innovative digital publications are publishers and associations exploring?

- How are libraries adapting budgets, services, and collections in response to the needs of faculty, staff, and students for discovering, accessing, evaluating, producing, disseminating, and preserving born-digital scholarly content?
- How can scholars work with publishers, libraries, and other entities in order to develop their aspirations for open and/or multimodal scholarship?

The second half of the workshop is reserved for open, collegial dialogue between the panel and the audience on topics or questions related to publishing, data sharing, and scholarly communications.

Panelists: *Rebecca Stuhr*, University of Pennsylvania, *Sebastian Heath*, Institute for the Study of the Ancient World, NYU, *William Caraher*, University of North Dakota, *Bethany Wasik*, Cornell University Press, and *Catherine Goldstead*, Johns Hopkins University Press

Session 4K: Colloquium

Burial Spaces of the Roman East: an Interdisciplinary Colloquium

Organizers: *Nicola Barham*, University of Michigan, and *Sarah Madole Lewis*, CUNY

Colloquium Overview Statement

In recent years, the study of mortuary landscapes in the Roman Provinces has embraced a range of new methodologies, with the eastern Mediterranean operating as a particular area of interest. Our proposed session gathers specialists from Europe and North America for a series of papers showcasing their most recent work. The aim is to set the burial spaces of Asia, Judea-Palestina, and Syria into productive dialogue. We approach key sites with a network of archaeological, anthropological, and art historical methodologies to interrogate the social and physical constructions of burial spaces from individual sarcophagus groups to entire *necropoleis*.

The first paper, "Shaping the Mortuary Landscape: The Archaeology of Death in Roman Ephesos," engages our theme at the macro-level, drawing on a diverse range of the most current methodologies to map social attitudes towards death and funerary practice, and the influence of the market economy on burial landscapes. The second paper, "The Death of a Foreigner: Burial Customs and Migration in Roman Lebanon," considers vexed issues of foreign identity in burials of the region. Drawing upon a digital database newly developed to facilitate cross-investigation of epigraphic, iconographic, spatial, and material evidence, the paper interrogates existing evidence in light of results from new isotope analyses on human remains from Berytus.

The next papers shift the focus to the use of sarcophagi. The first of these, "Strigillated Sarcophagi in their Eastern Mediterranean Contexts," takes Huskinson's recent monograph on sarcophagi from the Roman West as its point of departure. It explores how strigillated sarcophagi interacted within the local economies and

funerary landscapes at Ephesos, Tyre, and Caesarea Maritima. Next, "The 'Unfinished Garland': an Underexplored Motif" traces the use of tombs with these semi-worked forms in Asia and on the Lebanese coast. Situating this corpus of sarcophagi within the wider third-century aesthetic of formal abstraction, the paper explores the visual purposes that these communities may have perceived such "unfinished" forms as fully realizing.

The final paper, "Stamping the Body: The Power of Repeated Motifs on the Lead Coffins of Roman Lebanon," considers the understudied, rich corpus of late antique lead sarcophagi likely produced in and around Tyre and Sidon. The role of iconographic replication in enhancing the potency of figural motifs is considered, as is the possibility that the same workshops produced sarcophagi for polytheist, Christian, and Jewish patrons. Our respondent provides connective tissue and discusses the broader implications of the session for mortuary studies.

Discussant: *Joseph Rife*, Vanderbilt University

Shaping the Mortuary Landscape: The Archaeology of Death in Roman Ephesos

Martin Steskal, Austrian Archaeological Institute, Austrian Academy of Sciences

Since 2008, I have been engaged in intense field-archaeological research in the *necropoleis* of Ephesos. This research has included a combination of methods, such as survey, excavation, architectural study, geophysics, geoarchaeology and biological anthropology. In terms of Ephesos, we can consider our research approach to be holistic meaning that it covers a wide chronological, topographical, and contextual spectrum. Around 90 hectares of concentrated burial areas have been identified to date around the city limits of Ephesos. Within these burial areas, more than 1,200 burial places (tombs or freestanding sarcophagi) were mapped and classified. Most of them date to the Roman Imperial and Late Antique period.

This paper addresses several aspects of our interdisciplinary research and focuses on the Roman period. It discusses topics such as the organization of the mortuary landscape, the transformation of areas into architectural landscapes of the dead, burial sites in their intra- and extra-urban contexts, means of self-expression, general tendencies in the social attitudes towards death and funeral practices, as well as visual memorialization of status: outward-oriented representation versus a more pensive, family-focused memorial. This paper will also take a closer look at the economic aspects of death in Roman times independent of issues like religion or piety. It will become clear that death and burial obeyed the laws of the market: burial places were bought and sold like real estate. This paper discusses how these businesses were designed and who the people involved were. It also takes a look at the material remains that allow us to identify economic activities within the *necropoleis*.

The Death of a Foreigner: Burial Customs and Migration in Roman Lebanon

Vana Kalenderian, University of Groningen, and *Lidewijde de Jong*, University of Groningen

This paper discusses the vexed issues of foreign identity and burial customs in Roman Lebanon. Historical records attest relatively large numbers of migrants in the region in the first and second century C.E. People moved to Berytus, a rare Roman colony in the Levant, and to various satellite establishments in the Beqa' Valley. Army veterans and sometimes soldiers on active duty appear in the inscriptions of the region. Yet whether these migrant communities maintained the ritual customs of their homeland when burying and commemorating the deceased or, instead, adopted local customs or developed new burial practices, is a question rarely asked. Heavy fragmentation of the material record pertaining to funerary practices of colonists, soldiers, and veteran families complicates this investigation, as does the inherent difficulty of connecting graves to foreign identities.

This paper takes a fresh look at this issue by combining existing data with the results from new isotope analyses on human remains from graves in Berytus. We employ a newly developed digital database that allows for the cross-investigation of various categories of evidence: epigraphic, iconographic, spatial, and material. We aim to demonstrate that particular ritual practices concerning treatment of the body and use of containers are likely non-local. Yet, such occurrences remained exceptional and overall the graves contain few markers indicating foreign occupants. This contrasts with the commemorative customs, in text and image, where non-local identities are often explicitly mentioned.

Strigillated Sarcophagi in their Eastern Mediterranean Contexts

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

This paper addresses the production, patronage, and local contexts of sarcophagi with strigil patterns from the Eastern Mediterranean in light of Huskinson's recent monograph on strigillated sarcophagi, which focused exclusively on examples from the Roman West. Notable case studies from Ephesos, Tyre, and Caesarea Maritima reflect the presence of this type in three bustling maritime trade centers with an international population. Drawing on comparisons with strigillated sarcophagi from Roman Greece and other related types found in Asia Minor, Syria, and Palaestina, these sarcophagi are considered within their own funerary landscape. Local preferences for garland sarcophagi both finished and unfinished, plain imported chests, and costly ostentatious Attic imports, along with local innovations, dominate the Ephesian and Tyrian landscape, with a slightly different situation at Caesarea Maritima. How strigillated sarcophagi interacted within the local sarcophagus economies and the implications of patronage are considered, along with potential references to Rome.

The 'Unfinished Garland': An Underexplored Motif

Nicola Barham, University of Michigan

This paper traces the use of sarcophagi bearing the semi-worked form of the unfinished garland motif on the Lebanese coast. While these sarcophagi have (on the one hand, quite correctly) been historically identified as “roughed out” in the quarry for later finishing, scholars have failed to deeply engage the question of why so many of these sarcophagi were ultimately used for burials in this “unfinished” state. Accounts to date have been inclined to frame such uses as an idiosyncrasy of economy or incompetence—as some kind of aesthetic mistake.

The very extensive display of this “unfinished” sarcophagus type among the tombs of the necropolis of Tyre challenges such conclusions. Early twentieth-century accounts of scholars such as Etienne Michon and John Ward-Perkins, established the notion that the use of such “unfinished” tombs was exceptional; but they were not aware of the visual effect of the juxtaposition of so many of these sarcophagi at Tyre, where the necropolis had not yet been excavated. “Unfinished” garland sarcophagi constitute over an eighth of the sarcophagi found at Tyre; of those sarcophagi that display any sculptural features, at least five-eighths are of this type. The form was exceedingly popular.

This paper highlights not only the type’s widespread use, but furthermore the intentional replication of the disks and lunate bands of these imported sarcophagi in regionally carved tombs made of local stone. Drawing on the crescent forms that had long been popular in the region as formal comparanda, the paper further situates this corpus of tombs within the wider third-century move towards abstraction in the visual arts, met from the sculptural reliefs of the temple complex at Baalbek to the domestic wall paintings on Rome’s Clivo dei Scauro. The paper thereby explores the multi-directional aesthetic purposes that communities may have perceived these “unfinished” forms as realizing.

Stamping the Body: The Power of Repeated Motifs on the Lead Coffins of Roman Lebanon

Sean Leatherbury, Bowling Green State University

Hundreds of lead coffins survive from the Roman world. This number pales in comparison to the many thousands of extant stone sarcophagi, but in certain regions, the lead examples represent an important, and understudied, group. This paper considers the rich corpus of lead coffins likely produced in the second through fourth centuries in and around the cities of Tyre and Sidon in modern-day Lebanon, which were exported to a range of sites in the eastern Mediterranean. Focusing on their decoration, the paper examines the role of iconographic replication in enhancing the potency of the figural motifs, and explores the possibility that the same workshops produced sarcophagi for polytheist, Christian, and Jewish patrons. The distinctive manner in which the coffins were produced, with smaller stone or wood matrices that could be used over and over again, created zones in which artists allowed some of the more common “decorative” images of Roman art to multiply, vastly enhancing the potency of motifs that proclaimed religious affiliations (images of deities, crosses, menorahs), that served to protect

the deceased (phallic imagery, heads of Medusa, sphinxes, pelta shields), and expressed hopes for a good afterlife (rope motifs, images of Psyche, peacocks and *kantharoi*). These zones were organized in such a way that they played a range of visual games meant to boost the coffins' powers: for example, the architectural frameworks—colonnades, building facades—that often organize the figures are related to similar micro-architectural formats present on stone sarcophagi, but also to the architecture of the tombs in which they were buried. Through an analysis of the modular nature of their decorative programs, this paper argues that the coffins serve as a unique testament to Roman ideas about the reduplication and aggregation of symbolic motifs, which were adapted by artists for the deceased of various faiths.

Session 5A: Open Session

Ruler Cult and Portraiture in the Hellenistic and Roman Worlds

Mapping Early Hellenistic Ruler Cult

Cai Thorman, University of California, Davis

In the late fourth century B.C.E., a new phenomenon emerged in the religious practice of the Greek world: ruler cult. Although mortals in the Greek world had been worshipped as heroes and gods before the Hellenistic period, cults of Greek rulers that developed during and after the campaigns of Alexander of Macedon are considered distinct from both divine kingship and hero cult for mortals. Previous scholarship has claimed that this form of ruler cult evolved from Greek hero cult, but in contrast to hero cult, there is a striking lack of evidence for ruler cult on the Greek mainland. Instead, virtually all major cults for Alexander and his Successors appear first in western Anatolia or just off its coast. Epigraphic evidence in six Ionian cities attests to cults of Alexander that likely began during his lifetime and continued as late as the third century C.E. The first major cults for the Successors were also located in or off the coast of Anatolia. An inscription at Skepsis dating to 311 B.C.E. (OGIS 6, 20-3) attests to the founding of a *temenos*, altar, statue, festival, and sacrifices for Antigonos I (Demetrios I alongside). Over thirty years later, an inscription in Ilion (OGIS 212) records Seleukos I, after a long career in Mesopotamia, receiving similar honors. Ptolemy I also appears to have received his first individual cults at Miletos, ca. 314–288 B.C.E. (Milet I 3 139C) and Rhodes, 304 B.C.E. (Diod. Sic. 20.100.3–4). Similar types of evidence indicate that Lysimachos, Philetairos I, Ptolemy II, Antiochos I, and queens Apama I, Arsinoe II, and Stratonike of Syria all received their first major cults in Anatolia. The initial concentration and longevity of Hellenistic ruler cults in Anatolia suggest that this was a regional phenomenon, one rooted in a local tradition of acknowledging political power through cult practice.

The Freestanding Exedra as Portrait Monument

Elizabeth P. Baltes, Coastal Carolina University

With approximately 200 examples known from forty-five different sites, the freestanding exedra—a large semi-circular or pi-shaped statue base with an integrated bench—is a recognizable feature in many agoras and sanctuaries of Hellenistic Greece and Asia Minor. Christopher Ratté has gone so far as to describe the freestanding exedra as “one of the most characteristic small building types of the Hellenistic period” (review of *Die frei stehende griechische Exedra* by Suzanne Freifrau von Thüngen, *AJA* 101 [1997] 181–182). Indeed, this monument type has been studied almost exclusively as a building type, while the exedra’s function as a uniquely Hellenistic form of statue base has been largely overlooked. Recognizing its relationship to the display of portrait statues is fundamental to understanding the exedra’s sudden appearance in the fourth century and incredible popularity over the next three hundred years. By bringing into conversation the archaeological and epigraphic evidence, this paper examines the freestanding exedra within the broader practice of portrait dedication. I argue that the peculiar combination of statue base and bench was a direct response both to the physical spaces in which these monuments were constructed and to the culture of public display the Hellenistic period. This paper demonstrates that the exedra was a strategic choice that served three distinct functions within the statue landscape: like *prohedria*, it offered a front-row seat at festivals; it could accommodate multiple statues for an impressive family monument; and because it had a function beyond supporting statues, it acted as an *epiphanestatos topos* in the built landscape. Through its shape, size, and functionality, the exedra served as a strategy of distinction, ensuring the continued visibility and prominence of the portrait statues it carried. Its widespread popularity from the third to the first century B.C.E. attest to its remarkable success as a statue base.

Dynastic Women and the Family Portrait in Hellenistic Royal Art (Third–First Century B.C.E)

Patricia Eunji Kim, New York University

Royal visual culture throughout the Hellenistic world, which spanned the Mediterranean and Middle East, included images of the dynastic and/or royal family in different formats, materials, and contexts. Representations of the royal family blurred social and political boundaries by displaying “private” domains of the court in “public” spaces. Such images were important tools that expressed political power and royal identities, as well as cultural ideas about gender and the family. In particular, images of the royal family provide a unique opportunity to analyze how women figured in dynastic art and politics in the Hellenistic period.

This paper focuses on representations of female figures within images of Hellenistic royal families, including dynastic group portraits and royal couple portraits, in visual and material culture from the third to first centuries B.C.E. Specifically, I examine an eclectic corpus of visual and archaeological materials that include coins and sealing impressions from the Seleucids in western Asia and large- and small-scale sculpture of the Ptolemies in Egypt. Mobilizing methodologies found

in comparative and social art histories, I analyze the various strategies and practices developed by different rulers and their craftspeople to represent women in the dynastic family. The paper also engages with ancient textual sources and modern frameworks from women's and gender studies to bring nuance to my art-historical analyses. Through this interdisciplinary approach, I examine several questions: What can such images, including their patronage and iconographies, reveal about the contours and limits of women's political agency? What do the contexts of such images tell us about royal and non-royal attitudes toward dynastic families and women in particular? Finally, I comment on how different dynasties constructed gendered hierarchies and even negotiated conflicting cultural ideas about female power across the Hellenistic world through visual culture.

Principes et Principes Iuventutis: Conflation and Delegation in the Literary and Material Record

Anne F. LaGatta, University of Southern California

Scholars have noted that the portraiture of a Roman emperor's designated heir(s) often bears a marked similarity to that of the emperor himself, even in the absence of strong family ties. The rhetorical and political reasons for this conflation, which was the object of A.-K. Massner's book *Bildnisangleichung* (1982), are clear. The mutual resemblance between *princeps* and heir places an emphasis on continuity and stability, in order to smooth the transition between one *princeps* and the next. Not as well known, though, are the parallel examples in Latin literature where the personae of *princeps* and heir are blended to the point that they share traits, perform duties for one another, and are mutually affected by external hardships.

I propose that this connection between the visual arts and literature is linked to broader ideas of personhood in the Roman world, which differ from contemporary ones that equate the concept of the person with the individual as a biological entity. In Roman thought, the person is an actor within society, a cohering cluster of certain traits, duties and rights that may not always correspond to an individual human being. Although classicists have been working to develop a model of what it meant to be a person in ancient Rome, the Roman emperor's place in this model is still not clear.

I examine the visual similarity between portraits of male members of the imperial household during the principates of Augustus and Tiberius as well as passages in Ovid, Tacitus, and Suetonius that illustrate patterns of interaction between *princeps* and heir that have thus far received little scholarly attention. I argue that the persona of the *princeps* was sufficiently great as to include the heirs-apparent. My study shows how the concept of personhood, taken from anthropology and philosophy, can be used to analyze classical art and literature.

Session 5B: Open Session Aegean Waters and Islands

Delos Underwater Survey, 2017–19

Mantha Zarmakoupi, University of Pennsylvania. *Jean-Charles Moretti*, Centre national de la recherche, scientifique, Institut de recherche sur l'architecture antique, Lyon, and *Magdalini Athanasoula*, Ephorate of Underwater Antiquities

This paper presents the results of seasons 2017–2019 of the Delos Underwater Survey Project (2017–2021), a *synergasia* between the Ephorate of Underwater Antiquities of the Hellenic Ministry of Culture and Sports, the French School at Athens, and the Institute of Historical Research of the National Hellenic Research Foundation. The aim of the project is to: document, study and excavate the submerged areas of the main harbor of Delos, which has been heavily disturbed by structures built in the nineteenth and twentieth centuries, as well as of the adjacent island of Rheneia in order to understand the ways in which the harbors and coastal areas of these islands accommodated the Delian emporium; conduct an underwater survey for the location of shipwrecks around the two islands in order to identify the trading networks of late Hellenistic and Roman Delos; and conduct a geomorphological investigation and bathymetric mapping around Delos and Rheneia in order to further comprehend the maritime landscape of the two islands. In 2017, we surveyed and documented building remains of the main harbor. The Cyclades has seen a rise in sea-level of about 2 m over the last 2,000 years, engulfing many areas of the once heavily urbanized island. In 2018, we conducted an excavation at the submerged area of the so-called “*magasins du front de mer*” to the south of the main harbor of Delos in order to clarify the extent of these shops, their chronology and their function for the operation of the Delian emporium. In 2019, we conducted a shipwreck survey around Delos, investigating targets identified by the geomorphological investigation on the east and west sides of the island as well as surveying the southern tip of the island, during which four shipwrecks dating to the late Hellenistic and Roman periods were located and documented.

The Archaeology of Piracy: The Cilician Case

Elizabeth Bewes, Cornell University

The presence and activities of Cilician pirates in the Mediterranean during the Hellenistic period is well established by the ancient sources. Until now, however, archaeologists working in southern Turkey have had trouble identifying the presence of these pirates in the archaeological record. This paper aims to address both what ancient piracy looks like in the archaeological record and what previously unexplored avenues to identify Hellenistic piracy through material remains can be applied to the Cilician case. First, certain anchors and ship ornaments present in known pirate harbors along the coast, which have been C14 dated to the Hellenistic period, provide probable evidence of piratical maritime activity for archaeologists. Second, the Cilician pirates' involvement in the slave trade at Delos, the accompanying export of wine, and the remains of Will type 10/lamb type 2 amphorae

present off the coast of Western Rough Cilicia, represents yet more archaeological evidence of Cilician piracy in these waters. Third, epigraphic evidence of oracular consultation regarding the pirate menace along this coast provides indirect proof that the inhabitants along the coast frequently dealt with the pirate menace. Last, I suggest that adapting techniques for identifying eighteenth-century pirate and merchant vessels can be applied to that of the Hellenistic period. Specifically, I argue that artifact ratios aboard ships (cargo to weapons) and weapon consistency are possible ways to identify shipwrecks from the Hellenistic period as either pirate, merchant, or naval. In using the evidence outlined above, I will demonstrate that while there is no evidence that can definitively identify pirates in the archaeological record (i.e., a flag with skull and crossbones) there is a wealth of cultural material that, when combined, points to the presence of Cilician pirates on the southern coast of Turkey during the Hellenistic period.

Levitha Underwater Survey 2019

Mantha Zarmakoupi, University of Pennsylvania, and *George Koutsouflakis*, Ephorate of Underwater Antiquities

This paper presents the results of the first season of a three-year underwater survey project around the group of islands of Levitha, Mauria, Glaros, and Kinaros in the Central Aegean, conducted under the jurisdiction of the Greek Ephorate of Underwater Antiquities. The project is the first to focus on the central Aegean in order to locate shipwrecks around these islands so as to document and further investigate the maritime connections of ancient Greece with Asia Minor. Literary sources indicate that this group of islands is located at the intersection of important sailing routes of the Aegean, operating as stepping stones between Asia Minor and the Cyclades—and from there to mainland Greece. Although local fishermen and sponge-divers had given information about shipwrecks in this area, no underwater survey had ever been conducted.

During the 2019 season we focused on Levitha (ancient Lebinthos), the easternmost and largest island of the group, and covered twenty percent of its shoreline over the course of eleven days. We located seven shipwrecks and investigated an already known shipwreck. The dates of the shipwrecks range from the early Hellenistic through the early Christian period and point to the continuous importance of the sailing routes around the island. Two shipwrecks date to the early Hellenistic period, a time when the Ptolemies and the Antigonids strived to dominate in the Aegean region, three to the late Hellenistic period, two to the Roman period, and one to the early Christian period. There is an uninvestigated Hellenistic acropolis on Levitha and the high percentage of Hellenistic shipwrecks corroborates the importance of the island in this period. Finally, we also found an archaic granite anchor stock weighing 400 kg, which is the largest archaic anchor stock found to date in the Aegean.

Session 5C: Open Session Crimes Against Antiquities

Heritage Crime and Archeo-Mafia: A Case Study from Italy

Andrea Gennaro, Ministry of Cultural Heritage and Activities – Italy

“Heritage Crime” is a term used in the Anglo-Saxon world to define a wide range of criminal activities, from vandalism to illegal export of cultural objects, so strictly related with cultural heritage issue. For its great effect, this topical subject has begun to appear often in newspapers and is attracting always more frequently academic (in particular criminological and archeological) attention.

The aim of our essay is to explore the concept of “heritage crime” in Italy, a country that, despite several international conventions and its national jurisdiction, continues to suffer from looting and destruction of archeological sites. In addition, this situation is exacerbated by the presence of organized crime (like Mafia and Camorra), in particular in Southern Italy regions, where a large number of UNESCO’s world heritage sites are located. The Italian word “archo-mafia” implies a connection between heritage crimes and organized crime networks, and it’s very common to read it in the newspapers. But does this connection really exist? How does it work?

Using new evidence and focusing on recent events that took place in the city of Vibo Valentia (Calabria), where an archeological area has been recently partially looted, we present, relying on criminological and archeological backgrounds, the paradoxical Italian situation; in spite of the extension and the importance of its extraordinary cultural heritage, the legislative instruments are still unsuitable because they are distant from the correct interpretation of the entire problem and so related with an anachronistic vision. In particular, there isn’t in fact a specific type of offense about crimes against the cultural heritage, while at least sixteen types of criminal enterprises are recognized in the Italian legislation.

Finally, we analyze international consequences and the Italian problem of the difficulty in imposing sanctions.

The Middlemen of Social Media: Understanding Facebook as the New Frontier for Transnational Antiquities Trafficking

Katie A. Paul, ATHAR Project, and Amr Al-Azm, Shawnee State University

Facebook has emerged as ground zero for online antiquities traffickers in the Middle East and North Africa, opening new doorways to an illicit trade connected to terrorism financing. An investigative analysis into the Facebook trafficking phenomenon has identified dozens of Arabic language “Groups” on Facebook developed for the sole purpose of trafficking artifacts, connecting middlemen, laundering money, and disseminating information about methods for looting antiquities. The wide range of individuals affiliated with the illicit antiquities trade form a unique membership footprint within these digital groups.

Facebook’s user base represents 30 percent of the global population, providing a country-catalogued database of traffickers and buyers of artifacts and religious

relics. The digital platform serves as new source of data to help unravel cultural trafficking networks in a rapidly growing illicit trade. A case study on illicit trafficking out of Syria collected and analyzed publicly accessible data on over 3,000 profiles by manually monitoring and gathering the posts and communications in antiquities trafficking Facebook Groups. The project currently monitors over 100 looting and trafficking Groups on the platform serving more than 1,500,000.

Facebook's capabilities for media uploads, private encrypted messaging, disappearing images in Facebook stories, and admin-managed private communities provide the perfect platform for enhancing trafficking of antiquities and much more. Open source investigative research has uncovered how the social media platform has transformed the geographic reach and speed of connections between illicit antiquities networks. Facebook's efforts to connect the world have democratized the trafficking process in the MENA region.

Mes Aynak: Ongoing and Changing Practices in Excavation and Preservation in Response to the Surrounding Social, Economic, and Political Pressures

Erik J. DeMarche, World Bank, Ministry of Information and Cultural Islamic Republic Afghanistan

This paper seeks to summarize, publicize, and explain recent developments regarding the ongoing excavations at Mes Aynak both in terms of archaeological discoveries and the significant sociopolitical and economic issues surrounding the project.

Mes Aynak is an archaeology site located in the Logar province of Afghanistan. The site has a very dense Kushan/Kushano-Sassanian occupation layer with multiple Buddhist monasteries, Zoroastrian temples, mining areas, smelting and ore processing facilities, as well as domestic and administrative structures. Predating this layer are some finds dating to the Early Bronze Age and potentially to the Paleolithic. The survey and excavation of Mes Aynak is a corroboration between the Ministry of Information and Culture (specifically the Archaeological Institute of Afghanistan) and the Ministry of Mines and Petroleum of the Islamic Republic of Afghanistan, with support by UNESCO, French Archaeological Delegation to Afghanistan (DAFA), the World Bank, and others.

A part of Mes Aynak sits atop the once-valued \$100 billion worth of copper ore, reportedly the second largest deposit in the world. Rescue excavations began in 2010 after a Chinese state-owned mining company won the mineral rights to the deposit and declared their intent to turn the area into a pit extraction mine despite failing to mention this or any cultural heritage preservation steps in their bid. The early years of this excavation lacked organization and focused heavily on artifact recovery at the expense of data preservation. A recent symposium of international experts concluded that tunnel extraction is feasible at Mes Aynak despite contrary claims from the Chinese state-owned mining company. Currently plans are being made with the hopes of preserving the abundance of standing structures which are threatened by potential mining activities. Though in recent years there has been an attempt to change from a rescue excavation to a more academic excavation, significant problems persist.

Session 5D: Colloquium***Graecia Capta* Revisited: Recent Approaches to the Rural Landscapes of Roman Greece**

Sponsored by the Roman Provincial Archaeology Interest Group

Organizers: *Joseph Frankl*, University of Michigan, and *Machal Gradoz*, University of Michigan

Colloquium Overview Statement

Susan Alcock's *Graecia Capta* (1993) posited what has become a highly influential model for understanding changes to settlement patterns and land use in Greece during the early Roman Empire (Alcock 1993). In particular, Alcock's synthesis of pedestrian survey data suggested an exciting avenue for interpreting rural landscape change. Since *Graecia Capta* was published, archaeological research on Roman Greece has continued, fueled by new excavation and survey data (e.g., Gallimore et al. 2017). While *Graecia Capta* has undoubtedly been influential, much work remains in revisiting its central research agenda in light of recent field work, as well as theoretical and methodological developments (Alcock and Cherry 2004).

The proposed colloquium considers *Graecia Capta*'s primary methodological and theoretical innovations while examining its central historical questions, specifically, the analysis of data generated by pedestrian surveys. Thus, the session uses *Graecia Capta* as a primary framework for assessing and presenting recent approaches to the rural landscapes of Roman Greece, rather than refuting or corroborating Alcock's central arguments. The session's first paper explores the current limitations and possibilities of synthesizing survey data on Crete, suggesting the use of ecological networks and complex adaptive systems as two paradigms for developing a coherent historical narrative across the island's fragmented landscapes. The session's second paper contextualizes recent results from the Western Argolid Regional Project using the density of survey data in Greece's northeast Peloponnese. It argues this cluster of survey projects has the unique possibility of creating a multi-scalar interpretation of Greece's Roman period employing both synthesis and comparison. Similarly, a third case study uses survey data from Boeotia to develop a comparative framework for the integration of regional and provincial-wide land use patterns. The session's final paper considers the theoretical relationship between time and archaeological survey. It suggests that a disjunction exists between the temporality of survey chronology and the sequential nature of rural activity (e.g. farming and seasons). Recognizing this disjunction allows for a new incorporation of landscapes and survey material and, thus, the generation of new historical understandings of Roman Greece. These four contributions draw upon *Graecia Capta* to formulate novel theoretical and historical accounts of the landscapes of Roman Greece. They ultimately intend to generate a fresh discussion concerning avenues of future research and methodological best practices in the analysis and interpretation of pedestrian survey data.

Discussant: *David Pettegrew*, Messiah College

Creta Capta: Landscape Transformation on Crete in the Early Roman Empire

Scott Gallimore, Wilfrid Laurier University

The synthesis of pedestrian survey data is a fundamental challenge for archaeologists engaged in landscape research. Obstacles to synthetic analysis are well documented, including distinct methodologies employed by different projects and inconsistent chronological boundaries for particular periods. These difficulties can be deterrents to large-scale interpretative overviews of specific regions. Yet, studies like Alcock's *Graecia Capta* demonstrate the benefits of undertaking such research initiatives and the necessity of promoting methodological discussions around best practices for synthesizing information from disparate projects. One region for which focus on synthesizing Roman-period survey data is lacking is the island of Crete. While some scholars, such as Jane Francis, have carried out important preliminary work around this topic, there is potential for additional analysis. Crete is among the most surveyed regions of the Mediterranean, with almost every type of physical landscape on the island having seen some form of scholarly attention. As a contribution to this colloquium, this paper aims to evaluate the use of paradigms developed within the field of landscape ecology, including ecological networks and complex adaptive systems, for synthesizing survey data from Crete associated with the Early Roman period (first century B.C.E.–third century C.E.). Ecological networks provide a means of examining the development of coherence within and between fragmented landscapes, while complex adaptive systems can shed light on the stimuli behind transformation within socio-ecological systems. Both paradigms incorporate the concepts of connectivity and connectedness as central concerns and are readily adaptable to archaeological interpretation. For Early Roman Crete, they provide a means of contextualizing changes to settlement patterns and landscape use that were influenced by the island's incorporation into Rome's pan-Mediterranean economic, political, social, religious, and cultural networks.

Between Comparison and Synthesis: A Multi-Scalar Interpretation of Survey Data in Greece's Northeast Peloponnese

Joseph Frankl, University of Michigan, and Machal Gradoz, University of Michigan

In his 1998 review of the Berbati-Limnes survey, John Cherry remarked that the northeastern Peloponnese was becoming one of the best archaeologically investigated regions in Greece (Cherry 1998). Today, this claim remains particularly relevant to pedestrian survey, with the existence of no fewer than five well-published survey projects in the region. The area's most recent survey project, the Western Argolid Regional Project (WARP), was conceived as part of this well-developed tradition of regional fieldwork. The current paper highlights the prospects of interpreting WARP's Roman period data together with the results of other surveys in the northeast Peloponnese, including: The Eastern Korinthia Archaeological Survey, the Nemea Valley Survey, the Berbati-Limnes Survey, the Southern Argolid Project, and the Methana Survey Project. Central to this analysis is an understanding of the Roman Empire's multi-scalarity. While archaeological surveys exist empirically at the scale of the microregion, the past processes surveys document belong to larger scales, such as the province or empire. The current

paper's analysis attends to the multi-scalarity of the Roman Empire by situating WARP at the nexus of comparative and synthetic analyses. Using quantitative and qualitative assessments of survey data, the results of WARP's investigation are brought into dialogue with other surveys in Greece. Comparing WARP's survey data to neighboring microregions in the northeast Peloponnese accentuates the patchwork nature of imperial landscapes, highlighting the differences between microregions shaped by hyper-local factors such as topography (Düring and Stek 2018). On the other hand, while certain methodological problems emerge in the process of synthesis, combining the results of these surveys formulates a broader, regional narrative of land use and settlement. This regional narrative, in turn, can be situated within the context of Achaean and, thus, can be assimilated into Alcock's original historical conclusions concerning Early Roman Greece.

Fugit irreparabile tempus: Finding Time in the Landscapes of Greece

Daniel Stewart, University of Leicester

Graecia Capta and Alcock's subsequent work (Alcock 2002; Alcock 2012; Van Dyke and Alcock 2003) brought much needed attention to neglected periods in the history of the Greek East. In the intersection of period, region, and memory were important conclusions about the value of the rural countryside for understanding long-term cultural and economic change.

This paper suggests that in those intersections we can also read different types of time, and reconsider not only neglected periods but neglected sequences (cf. Yarrow 2015). It is necessary to make a distinction between (loosely defined) historical time, which forms the basis of our material chronologies, and agricultural time, which forms the basis for action in the ancient rural landscape. Both are sequential, but they are conceptually unrelated: the rhythms of the agricultural year are governed by sequence, but that sequence is mutable depending on local factors that can be within and outside of community control. Our chronologies, on the other hand, march ever forward.

Through selected case studies from the Roman Peloponnese, this paper argues that the materials that survey archaeology recovers are not just the evidence of past agricultural activity, or the evidence of seasonality, but the evidence of accreted and repeated sequences of action tempered to local conditions. In short, survey is bad at pinpointing years but excellent at pinpointing sequence and action, and this presents new opportunities for interrogating landscapes and survey material.

The Rural Landscape of Early Roman Boeotia in Context

Emeri Farinetti, Roma Tre University

The quest for features of interregional variability, within a landscape with striking characters of uniformity, as the Greek landscape in the Roman period has been defined, in comparison to the variegated Italian landscape in the same period, was already one of the goals of S. Alcock's research on Roman Greece (*Graecia Capta* 1993). The comment on landscape uniformity, as for Greece, was due mainly to the general persisting of the highest levels of nucleated settlements, and also

to the general impression of a rural abandonment which would characterize the landscape of the early Empire, in comparison with earlier periods. In fact, while the initial shrinking in the rural landscape seems similar everywhere, explanation for this empty countryside may vary from region to region. It can be seen not as absolute, but as relative to the characteristics of the environment and peculiar landscape biographies, to the behavior of the city sites and of the second rank settlements, to the property system, to the extension, the function and the location of the rural sites showing different patterns of resilience, and to an early or late appearance of changing social dynamics, as non-survey evidence has shown.

In this paper, focus will be given to the ways of reading the rural segment of the landscape and spatial and land use patterns detectable within it, having as reference the examination of the archaeological landscape record from the Boeotia region, with an eye to the wider Greek context. Stress will be put on the rereading of legacy data in light of freshly collected information, with special interest in the very early moments of Roman influence. With the belief that a comparative framework is needed in order to assess the available Greek landscape data critically and meaningfully, special attention will be paid to the ways in which rural sites appear in the survey record, aiming at the detection of distinctive characters of the sites and at the critical reading of meaningful details, which could allow for a fruitful comparison. In this respect, issues of chronological attribution and site classification will be examined as factors of potential biases, in the effort of avoiding the application in the Greek context of semantic categories born elsewhere within the Roman world. In addition, the issue of the so-called "family farms" and their persistence in the Greek landscape during the Roman period will be addressed and analyzed.

Session 5E: Open Session

Paths and Places: Innovative Approaches in the Old World

Following in the Footsteps of the Leigh Fermors: Report on the 2019 Season of the CARTography Project

Chelsea A.M. Gardner, Acadia University, and *Rebecca M. Seifried*, University of Massachusetts Amherst

The CARTography Project (Cataloguing Ancient Routes and Travels in the Mani Peninsula) is an international, multidisciplinary, Digital Humanities initiative co-directed by researchers at Acadia University and the University of Massachusetts Amherst. The project began in 2017 and aims to map the routes of past explorers through the Mani Peninsula, Greece, from the second century C.E. to the 1950s. The first phase of the project involved building models of the travelers' probable routes with Geographic Information Systems (GIS) software, using the premodern path network that was recorded in 2014–2016. These routes are now being ground-truthed through experimental hikes and documented with GPS and video recordings. The purpose of these hikes is to better understand the embodied experience of the travelers' journeys (including seasonality, mode of transportation,

and potential alternative routes), and to obtain data that can be used to assess the accuracy of computer-generated models like least-cost paths.

This paper presents the findings from the inaugural season of fieldwork, held in June 2019, which traced the route that Patrick (Paddy) and Joan Leigh Fermor took from Limeni to Kotronas in July 1951, later memorialized in Paddy's travelogue, *Mani: Travels in the Southern Peloponnese*. Prior to fieldwork, archival research was undertaken in the Patrick Leigh Fermor Archive (Acc.13338) and photographic collection of Joan Leigh Fermor (Acc.13179) at the National Library of Scotland. The archives contain Paddy's original notebooks as well as 183 black-and-white photographs that Joan captured on their journey. Collectively, these documents allowed the team to identify the exact routes that the couple took as they walked across the landscape. This paper presents the results of these experimental hikes, including select reproductions of Joan's photographs that show how the landscape has changed over the past seventy years, and concludes with the goals for the 2020 season.

Tracing Routes: A Survey Test Case from Garni, Armenia

Elizabeth Fagan, Virginia Commonwealth University

Classical period Armenia was connected to the broader Mediterranean sphere through trade routes and through sociopolitical relationships with other polities, particularly the Roman Empire. Armenia's location in the present day South Caucasus positioned the kingdom as an important trade conduit between the Mediterranean and Eurasia. This paper uses the test case of the spatial relationship between the Armenian capital of Artashat (Artaxata), and the ancient city of Garni, to consider the question of routes through the South Caucasus. Garni was a heavily fortified promontory site in a river gorge, situated about 30 km from Artashat. The paper presents results from a pilot survey project conducted in July 2019, which asked why the important site of Garni is located where it is, in a steep river gorge. This three-hectare site was clearly important: it was used by Armenian kings, was known to Tacitus, and had massive fortification walls that stood well into the second millennium C.E. And yet, Garni was situated in a dead-end valley. It has been suggested that Garni might protect an avenue of approach to the capital of Artashat, but the survey preliminarily indicates that the river gorge is unlikely to have been a significant route. Clues to the choice of Garni's location come from the Bronze and early Iron Age history of the area, and also the significance of its classical-period temple. If Garni was chosen as an important site by Armenian kings for affective reasons, the question of routes through the South Caucasus becomes more complicated than a matter of, for example, tracing least cost pathways. This paper takes the site and its spatial context to think more broadly about what it can tell us about the relationship between the Mediterranean and Eurasia.

Comparing Ancient Road Routes Mapped Using Archaeological and GIS Methods

Kurtis A. Butler, University of Wyoming

Mapping ancient road routes is important for understanding where ancient people traveled for activities like commerce and military movement. Previous

archaeological studies relied on sparse archaeological evidence, available ancient sources such as itineraries, and visual interpretations of the terrain to map road routes. There is limited remaining ground truth to support accuracy assessments of ancient roads; thus, there is a high degree of uncertainty about these routes. In some cases, two experts with access to the same information have mapped a road in two different locations, and in others, the routes have not been mapped at all. These inconsistencies raise questions about which routes to trust when investigating how ancient people interacted with each other and their environments.

Recently, Geographic Information System (GIS) methods such as least-cost pathway analysis (LCPA) have been used to map ancient roads. LCPA is based on the most efficient pathway between two points and does not fully account for human decision-making that may only satisfy a need rather than fulfill travel needs in the most efficient way possible. Although LCPA is useful for understanding the placement of road routes, it provides only a single prediction about where a road route was and does not offer any margin for uncertainty about where a route was located.

This paper compares roads that have been mapped using the previously describe archaeological methods with the objective measurements and visualizations available with GIS methods for interpreting movement across the terrain. Routes mapped in previous scholarship for northern Etruria are compared to routes mapped using LCPA, a terrain roughness index (TRI) which allows for the visualization of terrain complexity, and conditional minimum transit cost (CMTC) analysis which visualizes multiple easy routes in a corridor between two points. These comparisons demonstrate a need for more integrated approaches for future ancient road mapping.

Geographic Impacts on Northern Albanian Tribal Territories

Elic M. Weitzel, University of Connecticut, and *Erina Baci*, University of Michigan

Albania is often cited by scholars as the enigma of Europe. One of the reasons for this is that until the twentieth century, it was home to the last surviving tribal societies on the continent. Living in a geographically and ecologically circumscribed area, the inhabitants of northern Albania developed a formal tribal system based on blood relations and honor, dictated by an oral code of law called the Kanun of Leke Dukagjin. Following the communist period isolation of the country, archaeological research in Albania has greatly expanded. However, behavioral ecology models, which have not yet been applied in Albania, may prove to be useful in further expanding research on these northern Albanian tribes, specifically in regards to social structure, demography, settlement choices, and territoriality. Employing the ideal free distribution model, we hypothesize that the highest quality locations on the landscape could support tribes with the largest population densities. Using maps and data from Elsie's *The Tribes of Albania: History, Society, and Culture* (2015), we mapped all tribal territory boundaries and collected associated data on demography and occupation dates. We then modeled tribal population density as a function of territory suitability measured by net primary productivity (NPP), a measure of energy availability in an ecosystem, using a log-normal generalized linear model. Our results confirm that, as predicted from the ideal

free distribution, population density is greatest in tribal territories with higher NPP. We discuss the relevance of our results to extending ethno-historic data into the archaeological past in northern Albania. Behavioral ecology models tested on historic data, alongside ethnographic analogy, can provide useful means to understand the more distant past given more recent data. This permits researchers to address questions concerning the territorial extent and demography of Iron Age Illyrian tribes, for example.

Session 5F: Open Session

The Power of the Purse: Taste and Aesthetics

Ivory and Bone: The Roman Reception of Hellenistic Chryselephantine Couches

Rachel Kousser, City University of New York

Gold and ivory couches—intricately crafted, and decorated with scenes of Dionysiac revelry, hunting, and war—were among the most sumptuous productions of Hellenistic court art. Recalling Homeric precedents (e.g., *Od.* 23.199) but in an up-to-date style, the couches were popular in Macedonia during the late fourth century B.C.E.; later they featured in contexts as far-flung as Afghanistan and Magna Graecia. The couches were also among the most desirable and frequently emulated manifestations of Hellenistic culture in Republican Italy.

This paper examines the reception of Hellenistic chryselephantine couches in Italy during the second to first centuries B.C.E. Drawing on archaeological evidence from funerary and domestic contexts as well as literary sources, I highlight the ways in which the Romans transformed their Macedonian models. Fashioning couches out of the cheaper, more accessible medium of bone and deploying popular visual formulae such as military trophies and bound prisoners, Italian artists made the works relevant to their new patrons. At the same time, they drew on a bravura Hellenistic style and imagery of the wine-god's *thiasos* insistently to signal their owners' aristocratic, even regal, aspirations. As they reclined on the couches during banquets and drinking parties, Roman patrons gained an intimate bodily experience of Hellenistic court life. And they formed enduring connections to the couches, often making these prized, yet cumbersome, objects the largest preserved feature of their tombs.

In examining the Roman reception of Greek art, scholars have primarily discussed the traditional media of monumental painting, sculpture, and architecture. This paper demonstrates the heuristic value of broadening our focus to include objects like the couches. The result is a more nuanced understanding of Republican material culture. At the same time, the emphasis on bone as a medium allows new insights into the meanings of materials in Roman art.

Socci and Sociability: Shopping for Status in a Roman Shop

Rhodora G. Vennarucci, University of Arkansas, David Fredrick, University of Arkansas, and Will Loder, University of Arkansas

Work in marketing has underscored that shopping is meaningful behavior. It is still new to ask, however, how shopping behavior was meaningful for people in the Roman world in part because, as L. Cook et al. (*Historical Archaeology* 30 [1996] 50–65) discusses, consumption studies in archaeology have overlooked consumer agency and the social act of consumption. Consequently, although recent scholarship has established the Roman shop as a significant component of urban economies, a detailed study of the shop as sociable space and the primary context for the negotiation and performance of consumer identities is currently missing.

This paper applies a consumer culture theory approach (esp. identity theory and phenomenology) to The Felt Shop of Verecundus (IX.7.5-7) from Pompeii, which sold fine footwear (*socci*, soft-soled felted slippers) and high-status textile products (e.g., *toga praetexta*), to explore how ancient consumers self-fashioned through public acts of consumption in the shop. An interactive 3D model of the shop in VR, reconstructed using the standing architectural remains and V. Spinazzola's (*Pompeii alla Luce degli Scavi Nuovi* [Rome 1953]) excavation photos, plans, and watercolors, facilitated this investigation, which contributes to the Virtual Roman Retail project.

Socci were a luxury item worn indoors and at dinner parties that only the more affluent in society could afford. This paper concludes that shopping for slippers on the *via dell'Abbondanza*, Pompeii's most heavily trafficked thoroughfare, involved the public performance of (aspirational?) power and status displayed for a larger and more diverse street audience than a private *triclinium*, where the slippers were ultimately meant to be worn, could offer. This study demonstrates how shopping behavior, traditionally viewed as a component of modern retailing, conveyed sociocultural meaning in Roman society and highlights the social and communication functions of the Roman shop, alongside its commercial and distributive functions.

An Early Imperial Glass Intaglio Workshop at Sardis, Turkey

Jane DeRose Evans, Temple University

Glass intaglios are rarely studied as a class of object, but finds from the excavations of Sardis, in Turkey, give us some insight into the production of these humble items. Glass intaglios have been found in one sector of the site since 1994 and correspond to each other in manufacturing technique, color, and style. Given their unfinished state, it is likely that they were produced in the immediate vicinity of where they were found. Although intaglios are generally dated by stylistic means, some the intaglios at Sardis were excavated in Early Roman fills, especially in the clean up of the debris associated with the earthquake of 17 C.E., giving a *terminus post quem* of their production. By exploring iconographic parallels in local coins, the hypothesis that the intaglios were made in Sardis in the early imperial period is strengthened. The intaglio group shows the strong interregional ties of the populace of Sardis at the end of the first century B.C.E. and beginning of the first century C.E.

Some Lesser Known Examples of *Opus Sectile*: Toward an Aesthetics of the Medium
Stephanie A. Hagan, Drexel University

The fourth-century CE marble hall at Ostia (Porta Marina) and the roughly contemporary Basilica of Junius Bassus in Rome are well known for their splendid decoration in *opus sectile* (marble inlay). Such marble-encrusted rooms were a luxury that, if not unique to late antiquity, certainly flourished in it, as the evidence of these halls demonstrates. Yet *opus sectile* examples beyond these two sites are disparately published, and no scholarship examines why the medium was so popular in late antiquity or how it was used in public and domestic contexts. Current research on *opus sectile* instead tends to be either archaeometric, focusing on material analysis and corresponding quarry location, or typographical, aimed at classification and categorization of a largely geometric corpus.

This paper brings to the fore lesser known examples of the medium from late antiquity to offer an art historical assessment of a selection of parietal (wall) *sectile* in both marble and glass. What were the aesthetics of the medium in late antiquity? How did viewers see it working alongside other modes of decoration? Though surviving examples are highly fragmentary, a repertoire of shapes makes it possible to identify common motifs, including sham architecture, *vine rinceaux*, animal combats, Nilotic themes, and portraits. I map examples from across the wider Mediterranean to undertake a preliminary examination of regional variation in style and iconography. I argue that the inclusion of non-marble materials like shell, slate, and terracotta in late examples of the medium demonstrates a desire to control and expand the range of color and textural variation at play. I also posit the medium's self-conscious inter-medial referentiality, with which it both resisted and embraced *opus sectile's* designation as surface decoration.

Session 5G: Open Session
Prehistoric Aegean Burial Practices

The Prehistoric Cemetery on the North Bank of the Eridanos River, Athens: New Finds from the Agora Excavations

Brian Martens, Creighton University

Excavations conducted by the American School of Classical Studies in the Athenian Agora have brought to light an important Mycenaean cemetery along the north bank of the Eridanos River. Five chamber tombs, a cist tomb, two pit graves, and two urn cremations have now been excavated in the area, and stray finds demonstrate the existence of additional burials that were destroyed in antiquity. The cemetery, among the earliest with chamber tombs in Athens, operated from LH II to the Submycenaean period and was much used in LH IIIA and LH IIIC. It is probable that the same cemetery extends farther to the north and to the east along the riverbank, unexcavated under the modern neighborhood of Monastiraki.

This paper reports on the results of fieldwork conducted during the 2013–2018 seasons. Four tombs, their contents largely intact, are presented for the first time. Of particular interest is the first documented appearance of a branch of coral in a

Mycenaean burial in Attica. The new graves are then contextualized within the wider mortuary landscape of Mycenaean Athens. To conclude, a brief synthesis of the prehistoric remains in this zone of the excavations is presented. Most notably, ongoing work has produced thin evidence for continued use of the cemetery after the Late Bronze Age. Probably, as several Geometric-period wells suggest, the use of the plot shifted to habitation around this time.

Early Mycenaean Cloth from Tomb 10 at Ancient Eleon in Boeotia

Brendan Burke, University of Victoria, and *Bela Dimova*, British School at Athens

Since 2015, the Greek-Canadian Eastern Boeotia Archaeological Project (EBAP) has concentrated excavations on an early Mycenaean burial enclosure, called the Blue Stone Structure. Within this construction, at least fifteen rock-lined tombs for multiple individuals have been located below two in situ grave *stelai*. All recovered material from the BSS is contemporary with the Shaft Grave era, which is the late Middle Helladic and early Late Helladic periods (ca. seventeenth century B.C.E.), the formative period of Mycenaean culture.

Tomb 10, excavated in 2018, contained the remains of two adults that were moved to the side with the last interment, the burial of a ten-year-old child in crouched position. The remains of the child were covered by a textile, of which about forty fragments have been recovered. This young individual was also buried with bronze jewelry and two unfired clay vessels. The remarkable preservation is due to the tomb being capped by a monolithic stone slab and sealed with watertight clay.

Although the textile is fragmentary and heavily encrusted with soil, the uniform appearance of the warp and weft across the measured fragments suggest that they all belong to a single textile. Also observed are intentionally woven holes that may have marked places for the insertion of decorative elements, such as appliqués, or areas of supplementary decorative yarn, an early form of embroidery. Not only is the structure of the textile remarkable, a preliminary analysis identifies the single z-spun threads as animal fiber, among the earliest known examples of preserved wool in the Aegean. This paper presents the first discussion of the fiber identification and the textile construction, along with a contextual analysis of Tomb 10 within the Blue Stone Structure.

Tomb 11 at Ancient Eleon (Boeotia): An Early Mycenaean Ossuary in a Built Funerary Environment

Jacob M. R. Engstrom, University of Victoria, and *Nicholas P. Herrmann*, Texas State University

Dominating the early Mycenaean funerary landscape at ancient Eleon in Boeotia, the Blue Stone Structure (BSS) is a monumental Late Helladic I (ca. seventeenth century B.C.E.) burial enclosure capped by a large tumulus. Excavated during the Eastern Boeotia Archaeological Project's 2018 season, Tomb 11 is a purpose-built ossuary, with no evidence of primary burial, located directly beyond the BSS's monumentalized eastern façade. This paper presents results stemming from

preliminary analysis of the use history, grave goods, and human remains of Tomb 11, as well as its relationship to the BSS and the landscape of death at ancient Eleon. This research offers important insight into the mortuary traditions of an early Mycenaean population of some significance.

Tomb 11 contained the remains of more individuals (preliminary MNI >25) than any other tomb excavated thus far at ancient Eleon and the grave good assemblage makes it one of the richest at the site. The assemblage includes ceramic vessels of types representative of LH I Boeotia and metal, stone, and glass adornments, including a Late Minoan IA seal stone. The BSS and its tumulus represent a considerable concentration of human and material resources serving to distinguish the associated group(s) from excluded segments of the burying community at ancient Eleon and in the wider region of eastern Boeotia. The burying population thereby reshaped the site's funerary environment, focusing activity on the BSS and directing attention to the east of the structure. Tomb 11 is thus situated prominently on the mortuary stage at early Mycenaean Eleon and, we argue, played a significant role in funerary performance surrounding the BSS, a focal point in the region at a formative time in Mycenaean society.

The Early Iron Age Cemetery of Anavlochos, Crete

Florence Gaignerot-Driessen, UMR 5133 Archéorient

As part of a five-year (2017–2021) program, excavations were carried out by the French School at Athens in the Early Iron Age cemetery of Anavlochos, which extends over an area of about 12 ha at the foot of the associated settlement. A stone tumulus of 15 m in diameter, which represents a first attestation of this kind of funerary structure on the island, was notably brought to light during the 2017 and 2018 campaigns. Within is a series of pits, which served either as cremation places or repositories of vessels and weapons. Based on these well-preserved remains, eight other very ruined stone tumuli were recognized in the cemetery of Anavlochos. Other types of funerary structures co-existing with these tumuli, including tholos tombs, were also identified.

Thanks to the generous support of the Richard C. MacDonald Iliad Endowment for Archaeological Research grant, which was awarded to the Anavlochos Project by the Archaeological Institute of America, further study of the topography, architectural remains and material from the cemetery, as well as consolidation of the excavated stone tumulus were made possible in the summer of 2019.

The aim of this paper is to present an overview of the preliminary results in the Early Iron Age cemetery of Anavlochos and expose how they allow us to progressively approach social structures and political organization of a pre-civic community established on a Cretan mountain.

A First Look at the Ceramic Assemblages from the Cemetery at Anavlochos

Catharine Judson, Stockton University

The recent excavations in the necropolis at the Early Iron Age site of Anavlochos by the French School at Athens on Crete have uncovered a series of large tumuli

as well as smaller mortuary structures in the form of tholos tombs and enclosure graves.

This paper presents the results of the first season of study of the pottery from the necropolis. The pottery studied in 2019 primarily comes from the best-preserved tumulus at the site, including material from pits used for cremation pyres and for the additional deposition of pottery and weapons. Pottery from a nearby enclosure grave containing one to two secondary cremation burials was also studied. This paper presents the composition, formation, and chronology of these two assemblages, which imply different mortuary rituals. In particular, the makeup and depositional patterns of the pottery from the tumulus, which is characterized by large amphorae, stands, kraters, cups, pouring vessels, and lekanes, suggest that the structure hosted commensal activities associated with cremations. In contrast, the material from the individual grave, which contains predominantly smaller vessels including cups, *skyphoi*, *pyxides*, *lekythoi*, and miniature vessels, may represent more personalized offerings. This paper therefore provides a first look at a new material assemblage from an Early Iron Age necropolis on Crete.

Session 5H: Open Session

Prehistoric Aegean Representations, Texts, and Images

Pylos Ta 716: An Accurate Reading of an Essential Text for Understanding Mycenaean Ritual Practice

Thomas Palaima, University of Texas at Austin, and *Nicholas Blackwell*, University of Indiana

The thirteen tablets of the Pylos Ta series have helped us explore human activities at the Palace of Nestor (PoN) at Pylos in the LH IIIB period ever since Michael Ventris read them as “Greek Inventories in the Minoan script” in *Archaeology* 7 (1954). They underpin our reconstruction of commensal ceremonies at Mycenaean palatial centers generally (Palaima, *Hesperia* 73 [2004]). They have recently (Farmer and Lane, *SMEA* NS 2 [2016]) been used as evidence for “a scenario” of an investiture ceremony at the PoN in order to demonstrate “how close reading of both documents and inhabited spaces can be used to create middle-range theories for the exploration of agency, personhood, practice, and community” in Mycenaean palatial centers. Close reading implies accurate reading. If we read the critical text of Pylos tablet Ta 716 wrong, any scenario we build with it is de facto wrong.

The contents of Ta 716 vary so from the other twelve Ta tablets that its relevance in interpreting this series was ignored or doubted until Palaima (*Scribes of Pylos* [1988]) proved that it belonged. Now RTI images improve our reading in two crucial ways and confirm the collective instincts of earlier scholars (Hiller, *Eirene* 9 [1971]; Olivier and Vandenabeele, *Les idéogrammes archéologiques du linéaire B* [1979]; M. Del Freo, *SMEA* 28 [1990]; M.S. Speciale, *epi ponton plazomenoi* [1999]) that this tablet records:

- A. 2 gold-wrapped ceremonial bridle bits;
- B. 2 "hammer axes" used to stun and immobilize the sacrificial animal victims (a standard practice in ritual and non-ritual slaughter) and later to hack into them; and
- C. 2 small curved sacrificial knives (singular *ksiphos ≠ "sword" in Mycenaean Greek) for slitting the throats of the animals.

Evidence and non-evidence from Homer, Aegean iconography, ancient Greek lexicographers, and etymological handbooks support our interpretation.

Seals, Feasts, and Collective Action in Early Bronze Age Greece

Maggie Beeler, Temple University

The formation and development of complex societies is a central focus for scholars of Aegean prehistory, who locate emerging complexity in the third millennium B.C.E. with the appearance of monumental architecture, long-distance exchanges, and administrative sealing practices. Seals and clay sealings, which are found predominantly at Early Helladic (EH) sites in mainland Greece, are treated as a proxy for complexity because scholars assume elites used them to mark and control agricultural resources and the political economy. EH sealing practices are widely interpreted as evidence for redistributive chiefs and a chiefdom type society, an intermediary between earlier egalitarian Neolithic communities and later Mycenaean palatial states. The established neo-evolutionary framework presupposes the presence of elites in EH Greece and assigns to them a primary causal role in emerging complexity, a top-down and elite-based approach that overlooks the role of the wider community in the process of social change.

Yet increasingly archaeologists recognize the potential of current theoretical approaches that consider collective forms of leadership and account for the agency of commoners. Collective action theory, which considers how people in a given community cooperate to attain a common goal, has gained traction in recent years in archaeological work on complex societies that lack evidence for a strong, centralized authority such as a king.

In this paper I combine collective action theory with a context-based approach to the evidence for EH sealing practices to argue that commoners, rather than elites, used seals to mark goods as communal property (club/toll goods) for communal feasts to safeguard against "free riders." I propose that collective action theory opens up new avenues of inquiry for Aegean prehistorians to conceptualize complexity beyond hierarchy, which may account for why the first palaces rose in Crete and not mainland Greece despite the precocious complexity of EH communities.

Bringing the Minoan Fragmentary Relief Frescoes from Pseira to Life: New Reconstructions of the Murals, Figures, Costumes, Textiles, and Jewelry.

Bernice R. Jones, Independent Scholar

Two decades have passed since Maria Shaw's publication with earlier scholarship of the fresco fragments from Pseira that portray parts of figures adorned in

exquisite patterned garments and jewelry. Since then, related works of art have been unearthed and advances have been made in understanding Aegean textile technology, clothing manufacture, and design. This new evidence is utilized to suggest new reconstructions of the figures, their garments, and the whole fresco program. This understanding of garments and the way they drape on the body has led to new restorations of the missing parts of the fragmentary garments. Repositioning the fragments to scale has revealed that one figure is larger than the other.

Based on detailed analysis of clothes represented in Aegean sculpture, frescoes and glyptic, warp-weighted loom technology, garments documented in Linear B texts, and Egyptian and Near Eastern comparanda, the study translates the painted clothes into actual life-size cloth garments and recreates handwoven and embellished samples of the painted patterned textiles. Utilizing actual gems as those preserved in the archaeological record, a replica of the beaded necklace was also created.

Ultimately, the replicas adorn live models that pose in the positions in the frescoes. Together, they bring the paintings and costumes to life. The new composition, with two figures in an architectural setting, reconstructed to scale and digitally incorporated into its likely location at Pseira, secures its position among comparable iconographic and stylistic masterpieces as those illustrated on the Mochlos ivory pyxis and the Thera goddess fresco.

Session 5I: Workshop

Parenting and Fieldwork: Challenges and New Directions

Sponsored by the Women in Archaeology Interest Group

Moderators: *Maryl B. Gensheimer*, University of Maryland, *Maggie Popkin*, Case Western Reserve University and *Angela Ziskowski*, Coe College

Workshop Overview Statement

This panel addresses the challenges faced by parents with regard to entry, retention, and promotion in archaeology and related disciplines where regular fieldwork and travel is the norm. There are barriers, perceived and real, to entry into, and retention or advancement in, long term fieldwork for people who are parents or plan to become parents. While many individuals develop solutions for one-time opportunities, sustaining long term field commitments is financially, emotionally, and logistically difficult for anyone with children. In 2017 the AIA hosted a workshop on family life and fieldwork focused on creating peer networks of support. Building on that discussion, this panel aims to identify current challenges that exist on systemic rather than individual levels; to discuss the issues that create barriers to entry, retention, and promotion; and to identify potential avenues for increasing institutional support for parenting and fieldwork.

To that end, this panel gathers participants who represent a variety of perspectives. Panelists include working parents, excavation directors and senior staff members, and an officer at a major grant-giving institution. This diversity of professional experience will facilitate the workshop's goal to distinguish systemic

challenges facing parents in archaeology and to advance concrete solutions that may involve partners inside and outside the academy.

Following a short introduction by the session organizers, each panelist will reflect on his/her own experiences and recommendations. The workshop will conclude with a discussion period facilitated by the session organizers and open to all panelists and audience members, to examine further the needs of parents who conduct or wish to conduct fieldwork and potential institutional solutions to these needs.

This workshop will raise awareness of the often-invisible challenges to entry, retention, and advancement that parents of young children face in archaeology and related disciplines. These challenges are not new, but as the demographics of AIA membership change, and as issues of gender and racial equality come to the forefront of our field, the AIA can consider systemic solutions. These might include, but are not limited to, securing a seed grant to conduct a study of how parenting affects these issues of entry, retention, and promotion; developing a set of guidelines to make digs friendlier to working parents (which may eventually be published online as an open-access resource); and raising money to endow a fund that provides support towards the cost of childcare for parents who conduct fieldwork.

Panelists: *Andrew Johnston*, Yale University, *Amy Sowder Koch*, Towson University, *Stephanie Larson*, Bucknell University, *Sarah Lepinski*, National Endowment for the Humanities, *Lisa Pieraccini*, University of California, Berkeley, and *Angela Ziskowski*, Coe College

Session 5J: Workshop **Examining Ancient Color Through the Lens of Materials Analysis**

Sponsored by the Ancient Painting Studies Interest Group

Moderator: *Marie N. Pareja*, University of Pennsylvania, and *Hilary Becker*, Binghamton University

Workshop Overview Statement

Understanding the ways in which ancient pigments were employed relies increasingly on materials analysis. The results of these analyses reveal what was once hidden: evidence of the complex technologies and techniques used to create an artifact. A myriad of factors, from the details of the technology that was used to make the item, to the type of pigment used and the distance it likely traveled from its source, have enabled the opening of new avenues of inquiry across numerous fields of study.

This workshop focuses on materials analysis that serves as a scientific foundation from which to engage with topics such as optics, palette, procurement, composition, technology, and economy. The ways in which ancient pigments are studied is also of interest, such that papers consider the advantages of using different analytical methods and techniques on samples both in situ and once artifacts

have been removed from their contexts. Scientific modes of study allow for conversations that are focused on the pigment, the object on which the pigment was used, as well as the broader implications of such use within larger contexts.

Presenters contribute from a broad range of specialties, including but not limited to conservation science, art history, archaeology, museum education, chemistry, and anthropology. Presentation topics include the study of abstract polychromatic Mycenaean painting, painted Etruscan terracotta antefixes, Masonry-Style wall plasters from Stymphalos, an Egyptian mummy-case footboard, and Fayum portraits. Throughout, presenters share a unified theme: to determine what can be understood about ancient artists' materials and techniques. Finally, a recent exhibit at the Kelsey Museum on ancient color provides a case study for exploring the ways in which museum educators can adapt topics such as materials analysis and the ancient palette for the general public.

This array of brief presentations is chosen to facilitate and encourage discussion between panelists and audience alike in order to further our understanding of the complex history, use, and study of pigments in the ancient Mediterranean world.

Panelists: *Eleonora Del Federico*, Pratt Institute, *Kate Smith*, Harvard Art Museums, *Katherine Eremin*, Harvard Art Museums, *Georgina Rayner*, Harvard Art Museums, *Jen Thum*, Harvard Art Museums, *Georgina Borromeo*, RISD Museum, *Ingrid Neuman*, RISD Museum, *Alice Clinch*, Cornell University, *Roxanne Radpour*, *Christian Fischer*, *Yuan Lin*, *Giacomo Chiari*, *Marie Svoboda*, *Monica Ganio*, *Ioanna Kakoulli*, *Caroline Roberts*, *Catherine Person*, Kelsey Museum, University of Michigan, and *Christina Bisulca*, Detroit Institute of Arts

Session 6A: Gold Medal Colloquium

Diachronicity: Celebrating the Career of Jack L. Davis

Organizers: *Michael L. Galaty*, University of Michigan, and *William A. Parkinson*, The Field Museum

Colloquium Overview Statement

Jack L. Davis, the 2020 winner of the AIA's Gold Medal, has had an indelible impact on the field of archaeology. In a career spanning five decades, he has touched multiple Mediterranean regions, unbound by space and time. Calling his record "eclectic" is an understatement. This session, organized in his honor, captures the spirit of Jack's past and ongoing work. It takes a diachronic approach, highlighting those key contributions he has made over the years. Ultimately, it is Jack's willingness to think outside the box, to take chances, and question authority—despite becoming one himself!—which make his life and accomplishments well worth celebrating.

While a student in the 1970s, Jack studied pottery from Kea and Melos, launching interests in both islands and ceramic analysis. This early work touched on various issues of continuing import: contact and exchange, technology transfer, and the importance of the so-called "Western String" of Cycladic islands. Also during

this period, Jack undertook his first in a series of intensive survey projects, arguing that surface remains, if systematically collected, might reveal broad patterns of historical change. His contributions to survey method and theory are indisputable, and not just in Greece, also in Albania, to which survey was introduced, by Jack, in 1998. Jack's career is firmly grounded in Aegean prehistory, but also ranges forward into historical periods, including the Medieval and Early Modern. His research at the Mycenaean Palace of Nestor has been transformative, and while most scholars working in Greece ignored the Ottoman conquest, Jack embraced its archaeology and pioneered efforts to obtain, translate, and contextualize Ottoman (and Frankish) documents. Finally, Jack has worked intensively in modern libraries, including those of the American School of Classical Studies at Athens, which he directed from 2007–2012, focused on histories of archaeology in Greece and the Greek state.

Setting the Table for the Feast to Come: Jack Davis's Works on Aegean Bronze Age Pottery

Jeremy Rutter, Dartmouth College

Having chosen to write his dissertation on the history and chronology of the prehistoric fortifications at Ayia Irini on Kea (1977), Jack Davis set about becoming an authority on the terminal Middle Bronze and earliest Late Bronze Age pottery of not just the Cyclades but of the eastern Greek mainland and Crete as well. Within four years he published articles of steadily increasing length and importance in the *Athens Annals of Archaeology*, *American Journal of Archaeology*, and *Hesperia* dealing with various aspects of the pottery of the so-called Shaft Grave era, culminating in a detailed analysis of a major Late Helladic I settlement deposit from Korakou (1979) that continues to be of fundamental importance for the ceramic definition of this initial phase of Mycenaean culture in its northeast Peloponnesian heartland.

In the same year, the first of his many seminal collaborations with John Cherry appeared in the form of their coedited *Papers in Cycladic Prehistory*, within which Jack's article entitled "Minos and Dexithea" explored Cretan relations with the Cyclades through the novel lens of a postulated "Western String" of Cretan-dominated entrepôts on Thera, Melos, and Kea. This was to be the first of multiple investigations of the "Minoanization" phenomenon from different angles, many of them grounded in ceramic analysis, some with collaborators like Harriet Lewis and Evi Gorogianni, and some without.

By the mid-1980s, Jack's intellectual targets had shifted considerably as he moved into a stage of his scholarship dominated by his interest in surface survey. But right from the start of his career he had shown exceptional interests in breadth of coverage, collaboration, and a steadily more holistic approach to the study of Aegean culture through time. His intellectual appetite has thus constantly expanded at a metaphorical table carefully set by way of his early focus on ceramic containers.

Jack Davis and Islands

John F. Cherry, Brown University

Jack Davis's long and distinguished academic career began on an island: Kea, in 1973. His advisor, Jack Caskey, had handed him his dissertation marching orders: study the fortifications of Agia Irini. This he did with distinction in his 1977 doctoral dissertation and in his 1986 monograph on the Middle Bronze Age material of Period V. During the late stages of doctoral work, he was invited at short notice to undertake the study, along with myself, of the LB 1 pottery and all the small finds from Renfrew's excavations at Phylakopi on Melos.

That collaboration instigated the idea of organizing a Cycladic symposium at these meetings in 1978, leading to a book that came out the following year, *Papers in Cycladic Prehistory*. Its preface gives some inkling of the new and exciting ideas about islands that were then circulating. They led directly to an innovative, intensive archaeological survey on Kea, which we were eventually able to carry out in 1983–1984; the final monograph on this project, *Landscape Archaeology as Long-Term History*, won the Cotsen Prize in 1991.

Jack never again undertook island-based fieldwork, moving on to other survey projects on the Greek mainland and in Albania, and eventually back to excavations at Pylos. But he continued to contribute to Aegean island studies in important ways, as this paper will discuss. For example, in 1991 he published a massive article in *JMA*, blending the archaeological and archival evidence from the Ottoman Cyclades: nothing like this had ever been published before. And in 1992 (updated in 2001) he provided a magisterial overview of the Aegean islands for the first of *AJA's* Review of Aegean Prehistory series. These are contributions of lasting value to the field of island archaeology, even if Jack's later career took him in other directions.

The Deposit-Centered Survey as a Method for Discovering Paleolithic and Mesolithic Sites in Greece

Curtis Runnels, Boston University

As a result of my experiences with intensive regional surveys in the 1970s and 1980s, it became clear that archaeological remains from the earliest time periods are systematically underrepresented. Paleolithic and Mesolithic remains are difficult to identify with the techniques of linewalking and visual inspection of the surface used in such surveys. The low visibility of stone tools from these periods, as well as the masking effects of natural processes, such as erosion and marine transgression operating over long periods of time, are the chief problems. Accordingly, I developed a method with Tjeerd van Andel of targeting places in the landscape that are likely to preserve such remains. This approach is based on geomorphological principles and was tested successfully in Thessaly, Epirus, and the Argolid in a series of surveys between 1991 and 2003. Just one of these surveys, at Kandia in the Argolid, doubled the number of known Mesolithic sites in Greece. The method can be refined. At the suggestion of Justin Holcomb, the approach is now known as Deposit-Centered Survey and is used to identify targeted geologic deposits of the requisite age that are searched by specialized teams of experts for

stone tools and paleontological and anthropological fossils, in order to expand the record of the Paleolithic and Mesolithic. This approach was used on the island of Crete between 2008 and 2016 to identify evidence for the Mesolithic and Paleolithic periods, discoveries that have implications for the study of these periods on the Aegean islands in particular, and for the study of early hominin dispersals in general.

Jack L. Davis and the ‘Modern Concept’ of Doing Archaeology in Albania

Ols Lafe, Universiteti “Aleksandër Moisiu” Durrës, Albania

I first met Professor Jack L. Davis during the month of May 1998 in Tirana, Albania, when I was just a freshman at the University of Tirana, pursuing archaeology, which had been added as a course of study only recently, after the collapse of communism. Today, I am proud we all honor him as the 2020 winner of the AIA’s Gold Medal.

Jack has made impressive contributions to the modern practice of archaeology in Albania, primarily by encouraging a regional perspective. Starting with MRAP, the Mallakstra Regional Archaeological Project, which aimed to explore the hinterland of the ancient Greek colony of Apollonia, and continuing with DRAP, the Durrës Regional Archaeological Project, we gained a first, systematic overview of the hinterlands of Albania’s two Greek colonies. Jack’s commitment to intensive survey and a landscape approach led to a sea change in Albanian archaeology. In the last twenty years, numerous regional projects have been launched and countless new sites have been identified; some of them, like the Archaic temple of Bonjakët, found by MRAP near Apollonia, have also been excavated and will soon be published.

The ultimate result? A total and complete shift in perspective regarding how and when ancient Greek colonists interacted with local Illyrian peoples. We also now have a better sense of what life was like in both regions before the founding of the colonies and after their incorporation into the Roman Empire. This is in no small part the direct result of the methods that Jack L. Davis and his team applied without compromise, methods that had worked so well elsewhere in the Mediterranean, but were unknown in Albania. The future always reserves surprises for archaeologists, but one thing we can know for certain: Jack’s legacy in Albanian archaeology will be a lasting one.

By the Sword of Perseus or the Bow of Herakles? Developing a ‘Hinterland’ in the Early Mycenaean Period

Kim Shelton, University of California, Berkeley

Perseus and Herakles are two legendary heroes who, in addition to being known for their international exploits, are often associated with the foundation of sites and families, landscape infrastructure, and the protection of elite property and landholdings during the Bronze Age. They are especially connected to the northeastern Peloponnese and the earlier age/generations of heroes. Even though mythological, Perseus and Herakles represent, in some ways, the early

Mycenaean, pre-palatial period when, rather than consolidated under the “scepter of Agamemnon,” the settlements of the Argolid and Corinthia were fragmented into hamlets and small regional centers with elites enmeshed in local sociopolitical hierarchies.

With the Nemea Valley Archaeological Project (NVAP), Jack Davis and his co-directors innovatively investigated the long prehistory and deep sociopolitical history of the southern Corinthia, and its complexity, as it developed into, and became, the hinterland of palatial Mycenae. This research led to a better contextual understanding of neighboring regions as well, and even of Mycenae itself. Building on this foundation, new research continues to contribute to our understanding of the political geography and the process of regional development throughout the Late Bronze Age.

Using evidence both old and new, such as material from Aidonia, this paper examines the northern Argolid and southern Corinthia, during the Early Mycenaean period, when a number of sites in this region could have become a center and other areas, the hinterland. It is in the archaeological record that we can detect, among objects and features of symbolic displays of wealth and power and expressions of elite competition, an emerging sociopolitical landscape that indicates the creation of regional relationships and networks; as a kingdom is developed, so too its hinterland.

Jack Davis at Pylos

Sharon Stocker, University of Cincinnati

Jack Davis has had a long and distinguished career as an Aegean Bronze Age archaeologist. He has diachronic interests that span from the Paleolithic to the early modern period. His work in the vicinity of the Palace of Nestor, beginning with the Pylos Regional Archaeological Project, has played an integral role in his understanding of the Aegean Bronze Age and the early Mycenaean period in particular. PRAP helped define the extent of the Mycenaean settlement on the Englianos Ridge and subsidiary sites in the surrounding countryside. That, in turn, has led to a greater understanding of the size and structure of the Pylian kingdom.

The new University of Cincinnati excavations, beginning with the discovery of the Grave of the Griffin Warrior in 2015, have changed our understanding of the mortuary landscape of ancient Pylos. In the course of the recent work, we have uncovered extensive new evidence for contact between the mainland and Crete at the beginning of the Late Bronze Age. Evidence for contact between Pylos and the rest of the Aegean world extends, peripherally, to the islands and beyond, bringing full circle the continuing relevance of Jack’s early work on Crete, Melos, and in the Corinthia. Artifacts from the grave of the Griffin Warrior and other areas currently under excavation shed light on Early Mycenaean trade networks that extend beyond the Aegean to Egypt and the Near East and underscore the centrality of Pylos at that time.

Post-Medieval and Ottoman Archaeology in Greece: A Multidisciplinary Approach

Effie F. Athanassopoulos, University of Nebraska-Lincoln

In this colloquium, we are celebrating Jack's substantial contributions to Aegean/Mediterranean archaeology. His main research interests may lie in prehistory, however his work has also transformed the archaeology of historical periods, especially the study of the Post-Medieval, Ottoman and Early Modern pasts. A pioneer of the diachronic landscape approach, he has led by example and expanded the scope of archaeological surface survey research into less well-known time periods. Earlier surveys, such as the Minnesota Messenia Expedition, had made few contributions here, treating the Medieval-Early Modern periods as the domain of history, where historical records and standing monuments take center stage.

Jack's appreciation of the rich textual and material records of the Ottoman era has opened new paths for the study of rural regions in the Eastern Mediterranean. The systematic study of Ottoman tax registers offers a wealth of demographic and economic information, which, in conjunction with archaeological field surveys, can provide a model for interdisciplinary regional investigation. For example, the Ottoman cadastral survey of the province of Anavarin (1716) is the focus of a monograph coauthored by a historian (Zarinebaf), and two archaeologists (Bennet and Davis); it reconstructs in rich detail the agricultural and settlement systems of the region of Navarino, in Messenia, using multiple historical sources (Ottoman, Venetian, French), as well as archaeological and topographic research. Rural settlements played a major role in the regional and interregional trade networks of the eighteenth and early-nineteenth centuries. It is within this period that national identities and movements were formed, leading to the independence of Greece and other Balkan countries. Thus, the multidisciplinary perspectives that have defined Jack's work have made vital contributions to the study of the Post-Medieval period and offered a better understanding of the significant historical change and transformation that characterizes this era.

From 'Warriors for the Fatherland' to 'Dollies and Doilies': Embedding Historiography in the Study of American Archaeology in Greece

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

Jack L. Davis made his debut as an intellectual historian and historiographer in 2000 when he published "Warriors for the Fatherland: National Consciousness and Archaeology in 'Barbarian' Epirus and 'Verdant' Ionia, 1912–1922." There he discussed two cases of state-supported archaeology, challenging the processes by which notions of cultural identity had been shaped, as well as the role that archaeologists had played in the advancement of ahistorical claims in the lands of Epirus and Ionia. "It was a hard paper to get the right tone for. And it was then that I realized that the future lay in examining our role as foreigners, not that of Greeks and Greece," Davis recently confessed when I asked him about it. That article laid foundations for his subsequent scholarship in historiography, which has focused on the role of the foreign schools, especially the American School of

Classical Studies at Athens (ASCSA or the School hereafter), in supporting nationalist agendas, either U.S. or local, “in the land of others.”

During his ASCSA directorship (2007–2012), through the study of the School’s institutional records and personal papers of American archaeologists, Davis further explored subjects such as American philanthropy, philhellenism, and the politics of U.S. volunteerism in Greece. Searching for evidence among primary sources and adopting an historical approach, he sought to revisit archaeological policies, contextualize individual motivations, offer counter-narratives, examine the institutional habitus of the American School, and suggest new ways to adapt to evolving realities.

In this presentation I review his landmark essays and critical reflections on the historiography of American archaeology in Greece before World War II. By this work Davis has inspired others to follow in his footsteps.

Session 6B: Colloquium

Hephaistus on the Athenian Acropolis: Current Approaches to the Study of Artifacts Made of Bronze and Other Metals

Organizers: *Nassos Papalexandrou*, The University of Texas at Austin, and *Amy Sowder Koch*, Towson University

Colloquium Overview Statement

The study of artifacts in bronze and other metals from the Athenian Acropolis has always lagged behind monumental sculpture and architecture, in part because of the relatively poor preservation of metallic artifacts in bronze and the total absence of their silver and gold counterparts. Although Kavvadias’s excavations revealed great quantities of bronze fragments, publications have been few whereas the dispersal of the finds between the collections of two museums has impeded their accessibility and study. The result of these difficulties has been that our poor understanding of metals from the Acropolis today sharply contrasts with the prominence of metals in the sanctuary and its cultic practices known from literary and epigraphic sources and on works of art from the site. Recent publications and current research seek to correct this imbalance and restore Athens’s position as an important repository of a great wealth of metallic artifacts that were dedicated as votives, housed as treasures, and used as ritual objects in cult. Indeed, the wealth of metals housed on the Acropolis in certain periods is comparable with that documented at Olympia and Delphi.

For example, in 2006, Scholl revisited the votive vessels from the Geometric and Archaic periods, proposing that the objects and their figurative decoration can be viewed as symptomatic of the early sociopolitical transformation of Athens into a *polis*. In 2017, Tarditi’s publication of more than 1,000 attachments of bronze vessels from the Acropolis showcases their potential to illuminate the development of metallurgical production in Athens during the Archaic period as well as important aspects of cultic practice and votive behavior.

Building on these contributions, this session examines various types and aspects of metallic artifacts from the Acropolis from the Geometric through the Classical

period, aiming to reassess the presence and roles of these objects, to understand the social status of dedicants vis-à-vis the social networks that resulted in the deposition of the objects, to establish Athens's position as a center of bronze production, and to highlight new and spectacular finds that shed light on ritual practices that have been unknown to us until now. Reassessing the metal finds from the Acropolis allows us to recover key aspects of ancient Greek artistic production as well as better understand the functionalities of ritual practice. These gleaming objects conferred wealth and prestige to Athena and her city and would have contributed to the construction of the otherworldly ambience of her sanctuary.

The Social Life of Bronzes: Actor-Network Theory and the Athenian Acropolis

Diane Harris Cline, George Washington University

The Athenians, like most other Greeks, used metals to make a wide array of objects, some of which ended up on the Acropolis, known to us today because they were either excavated, referenced in literature, or recorded in inscriptions. Bronze votive objects ranged in size from finger rings to giant cauldrons, from figurines to statues, and from lamps to incense burners and tripods. Helmets, shields, and other arms and armor were deposited on the Acropolis as well. What Actor-Network theory (ANT) provides is a way for us to move from our endless catalogs of artifacts (e.g., Harris 1995) to mapping the social associations with and uses of these objects.

The ANT approach examines the technological, economic, and socio-religious practices and processes which tied humans to the material objects. A *chaîne opératoire* correlates the bronze objects deposited on the Acropolis with human activities like importing, crafting, buying, selling, transporting, performing rituals, inscribing, and inventorying (or not). The behaviors associated with habitually depositing metal objects on the Acropolis resulted in constant demands on trade and technological production, to satisfy these needs through the materiality of the metals. Using the additional lenses of entanglement and relational materiality, we can follow the technologies, material objects, traditions, and experiences associated with dedicating metal artifacts on the Acropolis of Athens.

Ultimately the life cycle of a metal object on the Acropolis is social. No metal artifact could end up on the Acropolis by itself. Each was a visible manifestation of many social acts passing through many hands, and as the end-user on the Acropolis lets it go and leaves it behind, the final act of donation is also in a social context. We conclude that ANT provides a new method for examining both the structures and related behaviors of cultic practice.

The Inscribed Bronze Dedications from the Acropolis of Athens

Androniki Makri, Hellenic Educational and Research Center, Athens, Greece, and
Adele Scafuro, Brown University

The subject of our study are the inscribed bronze dedications from the Acropolis. A full corpus of these dedications, approximately one-hundred in number, is a desideratum. Almost all date before 480 B.C.E. and most are in fragmentary

condition: they are statuettes and bases, small objects such as heads of animals, small shields, discs, mirrors, and especially basins and *phiaiai*. The most recent systematic publication on the subject (Tarditi 2016) focuses on bronze vessels and excludes other objects; moreover, the inscriptions are not studied thoroughly because the emphasis is on stylistic analysis. Our focus is more epigraphic with a view to emphasizing the social context of these productions. Here, we limit ourselves to inscribed bronzes which were published after IG I³ and not included in that corpus.

In an earlier study, we focused on bronze *aparchai* and *dekatai* dedications. Our main conclusion was that, the bronze dedications—suggestive of a widespread practice of dedication and thanksgiving—were probably not the gifts of poor Athenians, who would probably have dedicated *pinakes* or other more “humble” votives nor the gifts of the elites. Their skillful craftsmanship and inscriptions indicate they were dedications of a middle class of craftsmen, merchants and traders, or moderately prosperous farmers—and also of professional women, metics and foreigners. We argue that this middle economic class must have been prominent at the time and is substantially represented in the inscribed corpus of bronze dedications from the Acropolis.

Apart from the new pieces that we add to our “catalogue” we further contextualize the social and political background; many of them must have been “*neopolitai*” of the Cleisthenic tribal reforms; see Arist. [*Ath. Pol.*] 21.2. and especially Arist. *Pol.* 1275b, where Cleisthenes, after the expulsion of the tyrants, is said to have “enrolled in his tribes many resident aliens who had been foreigners or slaves.”

Hephaistos in Athens: Bronze *Hydriai* from the Akropolis and beyond

Amy Sowder Koch, Towson University

Greek bronze *hydriai* were made in plentiful numbers and have survived in great quantities—complete examples and fragments of over 600 have been identified to date. Decorative elements on their cast handles have attracted a fair amount of attention, allowing productive typological assessments and an understanding of chronological developments in shape, technique, style, and decorative motifs. Inscriptions on at least seventy surviving vessels, together with ancient artistic representations, literary references, and epigraphic mentions of the objects have broadened our understanding of the functions of the shape, particularly in bronze. When recorded, documented provenances have enabled at least a partial understanding of the movement of the vessels across a wide geographic area, both within and outside of Greek territories. Pinpointing bronze production centers has proven notoriously difficult, however, which has left many questions of manufacture unresolved. While Athens’s preeminent role in painted pottery production is well attested, its position as a metalworking center has been less clear. Stylistic recognition of Lakonian and Corinthian products sometimes has been possible, but the lack of a comprehensive account of bronze *hydria* fragments from Athens has hindered our understanding of Athenian production. Drawing on evidence presented in C. Tarditi’s volume, *Bronze Vessels from the Akropolis* (2016), this paper evaluates bronze *hydria* fragments from the Athenian Akropolis as a group and compares them with the wider catalogue of surviving *hydriai* in order to identify

Athenian preferences. Through analyses of style, techniques, and iconographic motifs, we can identify products made in local workshops and track them across the Mediterranean, identifying routes and changing patterns of distribution from the Archaic through the Late Classical period. Through this study, we can reassess Hephaistos's work in Athens and better understand the roles bronze *hydriai* played on the Akropolis and beyond.

The Monumental Tripods from the Acropolis of Athens between the Eighth and Seventh Centuries B.C.E.

Germano Sarcone, Scuola Normale Superiore, Pisa

The paper proposes a reexamination of the monumental bronze tripods from the eighth and seventh centuries B.C.E. from the Acropolis of Athens. This class of materials is attested by several fragments of bronze hammered sheets pertaining to legs and handles, discovered by G. Kavvadias during the excavations of the site in the late-nineteenth century. These fragments testify that large tripods were increasingly produced and dedicated from the middle of the eighth century B.C.E. in the sanctuary of Athena Polias. They were made with different techniques and decorated with geometric or figured patterns. I offer a new study of these old Acropolis finds, with particular emphasis on a selection of a few large bronze handles and legs. A comparison of these artifacts to other similar items of Geometric and Orientalizing-period manufacture from Delphi and Olympia discloses the technological virtuosity of the Athenian material. Moreover, the detailed study of this evidence makes possible a new graphic reconstruction of the original tripod-cauldrons which facilitates our understanding of their intended monumental effect as never before. The findspots of the fragments and the consideration of the original topographical contexts provide a better understanding of their original locations and their importance in the shaping of the sacred landscape of the Acropolis of Athens during the Archaic period. The reconstruction of the material and visual nature of the Acropolis tripods is fundamental for comprehending the political, symbolic and religious significance of the tripods and understanding their roles in the Sanctuary of Athena Polias in Athens, in particular.

Monsters on the Athenian Acropolis: The Orientalizing Corpus of Griffin Cauldrons

Nassos Papalexandrou, The University of Texas at Austin

The corpus of seventh-century bronzes from the Acropolis comprises a small number of significant remnants of the so-called "orientalizing" cauldrons. These stereotypically orientalizing specimens are ten griffin protomes and four "siren" attachments. Although almost all of these artifacts were found during controlled excavations of the nineteenth century, they are insufficiently published and scholars have analyzed them exclusively in stylistic terms. This paper attempts to restore these artifacts to their immediate functional relationships (as appendages to vessels) and on the basis of this methodological step, reevaluates their original significance and their contribution to the sacred ambience of the Acropolis.

The griffin protomes represent ten cauldrons of various dates and sizes ranging from miniscule to impressively monumental—for example, a griffin head (Athens, NM 6635) should be restored to a sizeable cauldron of up to 2 m of diameter at the belly. With one exception, all protomes have been securely attributed by (Gehrig, Samos IX) to prolific Samian workshops, the products of which have been documented in considerably wealthier sanctuaries such as Olympia, Delphi, and Samos. The “sirens” represent three or four cauldrons dating from the first quarter of the seventh century.

The variegated nature of this corpus in conjunction with evidence from contemporary pictorial and coroplastic media in Athens suggests that the traditional interpretation of these cauldrons as showy dedicatory objects needs a thorough reconsideration. I argue that the griffin cauldrons of the Acropolis were collected by sanctuary authorities primarily as cultic equipment for performative events characterized by a high level of restricted physical and cognitive accessibility. Although the dedicatory function cannot be altogether excluded, the deposition of griffin cauldrons to the Acropolis was probably motivated by a local need to attune the sanctuary’s symbolic behavior to that of the growing Panhellenic sanctuaries of Delphi and Olympia.

A Bronze Phiale in the West Entablature of the Parthenon

Eleni Karakitsou, Acropolis Restoration Service, Ministry of Culture and Sports, Greece

During restoration works in March 2012 on the southwest corner of the Parthenon, a unique discovery was made in a quite unusual place. Within a void behind the second metope from the corner, following the removal of an undisturbed earthen fill, there was revealed an inscribed, Archaic, bronze, mesomphalic phiale, with *repoussé* decoration, and part of a bone flute with an internal bronze pipe.

Previously in the Parthenon, there have been two other such discoveries of bronze, phiale-shaped vessels. They had accidentally fallen into constructional gaps between architectural members and were clearly utilitarian vessels, specifically paint pots, judging from the red ochre they contained. Unlike these other vessels that lay in random positions and locations, the latest phiale appears from its depositional circumstances to have been carefully placed right-side up at this precisely selected point. Traces of fire in the fill and on the flute fragment found inside the phiale point to a particular religious ritual, probably a libation, performed at this spot during the temple’s construction.

The paper examines various questions and possible interpretations that arise from the discovery of the bronze phiale at this location on the monument. The structural importance of the southwest corner where the phiale was found and its orientation towards the sea/Poseidon, as well as the weight of other religious and ideological beliefs or artistically transmitted messages associated with this part of the temple may have contributed to the choice of location for this sacred, ritualistic offering of gratitude, performed to ensure the safe, successful completion of the building project.

Session 6C: Open Session Rome!

New Evidence for the Design and Spatial Integration of the Fora of Caesar and Augustus in Rome.

Wladek Fuchs, University of Detroit Mercy

The paper will argue that the Forum of Augustus was envisioned by the patron and the architect as integrated with the Forum of Caesar into one monumental complex.

The two projects followed the same general spatial concept. Their history and form are well recognized through archaeological excavations. However, the actual architectural form of the transition between the two spaces is still buried below the Via dei Fori Imperiali. Thus the design is open to speculation. It has been traditionally represented in the literature as a solid wall, with either three or five openings allowing passage between the two spaces, implying that separate ideas and designs were at the foundation of each Forum.

Analysis of the archaeological data shows that Octavian made a series of changes to the Forum of Caesar. The two wings of the portico were modified, they were also extended by 20 m, and a new entrance to the complex was added in the form of an open colonnade on the southeastern end. Consequently, the design change described by Suetonius must be seen as a result of problems with land acquisition on the opposite northwestern side of the new project. The geometric analysis shows that the form and size of the Temple of Mars Ultor were established to create a single composition with the Temple of Venus Genetrix.

In conclusion, the paper will propose that Octavian saw his forum as a continuation of the project of his adopted father, in the same way as his political role as a family legacy. Spatially, the idea was embodied by the main entrance to the complex through the Forum of Caesar, a monumental open portico between the two open spaces, and the carefully designed relationship between the two focal points of the fora: the Temples of Venus Genetrix and Mars Ultor.

The Signum Vortumni Project: Results of Excavations in the Horrea Agrippiana on the NW slope of the Palatine Hill (2016–2019)

Matthew J. Mandich, ISAR, Dora Cirone, ISAR, and Alessio De Cristofaro, SABAP Roma

The remains of the Horrea Agrippiana, an imposing, multi-story imperial warehouse dating to the time of Augustus, were first brought to light in the early 1900s during excavations directed by Giacomo Boni. The site is located at the base of the Palatine Hill's northwestern slope and is bordered by the famed vicus Tuscus—one of Rome's oldest roads that ran between the Palatine and Capitoline Hills, connecting the Forum with the Circus Maximus and the Velabrum area. According to the literary tradition a statue of the god Vortumnus (the Etruscan god of change) stood somewhere on or near the vicus Tuscus, seemingly in proximity to the later site of the Horrea Agrippiana—hence the name of the project. Following

Boni's investigations the building was the subject of additional topographical and architectural studies, allowing for the documentation of multiple building phases ranging from the Augustan era until at least the seventh century C.E. However, until recently, the site was not the subject of scientific stratigraphic archaeological exploration. Following promising preliminary probes carried out in 2003–2005, in 2016 The International Society for the Archaeology, Art and Architecture of Rome (ISAR) was granted an official excavation concession by the Ministero dei Beni e delle Attività Culturali (MiBAC) for the Signum Vortumni Project. The aim of this project is to uncover and reconstruct the pre-Imperial topography of this important area in the monumental center. Following four seasons of excavation, the remains of several diverse structures have come to light, including a large *opus quadratum* building, a later Republican *domus*, and an early brick-built *insula* or storage building. Based on the results of these excavations, this paper will attempt to reconstruct the pre-Augustan topography of the northwestern slope of the Palatine Hill in addition to providing insights concerning late antique phases of site use.

Arches and Gates in Augustan Rome

Anne Kontokosta, New York University

Although they share a similar arcuated structure, Roman freestanding arches, monuments traditionally erected to celebrate individual military victories, and city gates in defensive walls played distinct roles in the urban landscape during the Republic. However, long-established functional and iconographical boundaries between these monuments began to blur in the Augustan period. Although Rome had already outgrown its old city walls, the regional reorganization of Rome in 7 B.C.E. was a significant urban “turning point” (Haselberger 2007) as the city gates of the Servian Wall were officially liberated of their defensive function and transformed into elaborate “gateway arches” (Coarelli 1988). Under Augustus, these gateways, such as the *porta Caelimontana* and *porta Esquilina*, were lavishly ornamented using iconography borrowed from Rome's most famous freestanding arches. And while the old gateways were elaborated to recall the storied victory monuments of the Republic, Rome's city walls themselves were symbolically allowed to fall into ruin. This visual juxtaposition clearly proclaimed that through military might Rome had become a city so powerful it no longer needed conventional defenses.

This paper investigates the relationship between freestanding arches and city gates before and during the period of Augustus. I argue that the Augustan transformation of city gates to emulate freestanding Roman arches does not indicate, as many have suggested, that these two monument types were previously related. Nor does it warrant the frequent inclusion of city gates into studies of freestanding arches. Instead, I propose that the adoption of the freestanding arch as a model for city Augustan gates both reflects the importance of the freestanding arch within the republican city and marks the beginnings of its demise as an independent victory monument associated with some of the most significant individuals of the Republic.

Fire! Fire! Rethinking the Excubitorium of the VII Cohors Vigilum in Rome

Simonetta Serra, Sovrintendenza Capitolina – Roma

The Excubitorium of the VII Cohort of the Vigilum was discovered in 1866. Attention focused immediately on the ninety-two graffiti discovered on the walls, but the monument in itself has never been the subject of a specific analysis. Even the marine mosaic, which disappeared in the early-twentieth century, has never been properly studied.

In this paper I will reconsider the structure of the monument and, on the basis of an analysis of the different building phases still recognizable but never considered, I will propose a more elaborate reconstruction of the development of the monument where at least three phases can be documented between the first and the third centuries C.E.

This new analysis will also provide original information about the lost mosaic, which could belong to a phase that precedes the arrival of the firefighters in the Trastevere building. The subject of the mosaic, a marine scene with Tritons and imaginary animals, is normally found in baths or private houses, so it is possible that originally it belonged to a building with a different destination of use.

A final goal of this paper is a more general examination of the distribution of the Cohorts in Rome and the nature of the barracks known as *excubitoria*. A recent article by Filippo Coarelli proposes a new hypothesis on the position and interpretation of the various structures identified as barracks for the firefighters and proposes a different interpretation for the term *excubitorium*. Even if his theory has some elements of interest, I will propose a different solution for the problem of the name and nature of the fourteen *excubitoria* remembered in the *Curiosum Urbis Romae* and in the *Notitia regionum*.

Out of the Magazine, Into the Cloud: Virtual Modeling of the Great Marble Map of Rome

Elizabeth Wolfram Thill, IUPUI, and Madeline Theaman, IUPUI

Launched in 2018, the Great Marble Map of Rome Project uses cutting-edge technology to further research on and engagement with the Great Marble Map of Rome (known traditionally as the *Forma Urbis Romae* or the Severan Marble Plan). The project's goal is an innovative public website with digital access to all aspects of the map, in coordination with a new museum opening in Rome. This work is made possible through a partnership between the Ancient World Mapping Center (UNC-CH) and the Musei Capitolini (Sovrintendenza Capitolina ai Beni Culturali, Rome), in collaboration with the IUPUI Center for Digital Scholarship.

The project's latest undertaking is new 3D digital scans and models of all ca. 1,200 surviving map fragments. In Fall 2019 a team will use Creaform Go Scan 3D handheld structured light scanners to make on-site digital scans of 200 fragments. The resulting scans are scalable with an accuracy up to 0.01 mm, and capture color and texture resolution up to 16,000 x 16,000 pixels. The new scans, presented in this paper for the first time, represent a leap forward in the recording and dissemination of information on the Great Marble Map. New forms of digital presentation, in particular virtual reality, offer exciting possibilities for novel research

methodologies and questions. For example, a team of researchers wishing to test possible chronological differences in the execution of temple depictions will be able to access all fragments showing temples, view them at the same time in the same virtual space, and manipulate the modeled fragments like three-dimensional objects, to compare side-by-side details such as depiction styles, depth of carving, spacing of lines, and relationship to mounting clamps on the back. Such techniques and more promise a bright research future as we work closer with the new scans.

The Many Meanings of the Arch of Titus and the Mechanisms of Reinterpretation

Fredrik Tobin-Dodd, Swedish Institute in Rome

The Arch of Titus in Rome was constructed as a Flavian commemorative monument but has since been interpreted in many other ways. In Renaissance and Baroque Rome, the arch appeared in papal ceremonies as a symbol of Christian supremacy over Judaism, and from the nineteenth century onwards it has often been seen as a symbol of the survival and resilience of the Jewish people. Within both Christian and Jewish thinking, however, there exist several different, sometimes contradicting, interpretations of the meaning of the arch.

This paper traces the historical development of Christian and Jewish understandings of the arch and argues that it has specific properties that makes it possible to read it in so many ways. The Jewish reversal of the message of the arch, from oppression to survival, is only made possible by the depiction of the menorah, an iconic Jewish symbol, which functions as an interpretational pivot around which the meaning can be turned around.

Christian understandings of the Arch of Titus have primarily fallen into two categories, either seeing the Arch as a symbol of Christian triumph or as proof of the historicity of the Christian faith. This paper argues that these two strains of thought reflect Catholic and Protestant views on the nature of the Christian church and its history.

The Arch of Titus is a good example of how differently an ancient monument can be interpreted. However, this does not mean that any monument can easily be assigned a new meaning. These processes of reinterpretation can only happen when a monument, like the Arch of Titus, offers specific opportunities to do so.

Session 6D: Open Session

Current Archaeological Research in Northern Greece and the Western Shores of the Black Sea

Mapping 'Marginality': Results of the 2019 Central Achaia Phthiotis Survey

Margriet J. Haagsma, University of Alberta, Sophia Karapanou, Ephorate of Antiquities, Larissa, Lana Radloff, Bishop's University, Sandra Garvie-Lok, University of Alberta, and Vladimir Stissi, University of Amsterdam

The Central Achaia Phthiotis Survey (CAPS) is a *synergasia* between the the Ephorate of Antiquities in Larissa, Greece, the University of Alberta, and Bishop's

University. CAPS explores the landscape around the site of the Kastro at Kallithea in the region of Achaia Phthiotis, lying on the western end of the plain of Almiros. This largely uncharted region sits at the crossroads between northern and southern Greece, between plains and mountains and between the sea and areas further inland. It is characterized by a dynamic landscape of fertile plains and rolling hills intersected by the Enipeus river and the Kotsiloremma. The goal of CAPS is to increase our understanding of the interplay between environmental, geopolitical, cultural, and social factors for the community/ies living in this region through time by mapping this “marginal” area to identify patterns of connectivity, continuity, and discontinuity.

The 2019 pilot year of CAPS focused on intensive survey of cultivated fields in the Kampos area, north of the Kastro, and the mapping and study of Early Iron Age *tholos* tombs. In spite of a dramatic alteration of the landscape since the 1960s, material collected from the survey demonstrates a robust archaeological record. Initial results indicate that although artifact densities diminish as distance increases from the Kastro, producing a halo around the base of the hill, recovered materials include a broad range of diagnostics. Within this context, we have located at least seventeen Early Iron Age *tholos* tombs in visually conspicuous locations. The excavation of one tomb reveals internment in possibly two phases and evidence for commemorative activity. These promising results form the basis of a five-year plan, which will supplement pedestrian survey with LiDAR data and geological studies to identify features obscured by heavy vegetation and environmental factors influencing patterns in the landscape.

The Long Lives of Attic Figured Vases from Ancient Methone

Trevor M. Van Damme, University of Victoria

Since 2014, the Ephorate of Pieria and UCLA have collaborated on the excavation of the West Hill of ancient Methone. This project joins a growing number of well-documented sites in the north Aegean, including Pydna, Karabournaki, Sindos, Toumba-Thessaloniki, Akanthos, Olynthos, and Thasos, which show interconnections within the area and beyond during the Archaic and Classical periods. One of the most impressive features documented at Methone is an enigmatic rock cut shaft that was filled with refuse from the settlement in three discrete phases over the course of the sixth through fourth centuries B.C.E. Study of the fill stratigraphy, as defined through networks of ceramic joins, allows changing consumption patterns to be quantified at the site, prior to its destruction by Philip II in 354 B.C.E.

In this paper, I present the results of two years of intensive study of the Attic figured vases from the rock cut shaft. Among the inventoried finds presented for the first time are the earliest known Panathenaic amphora from the North Aegean, a pseudo-Panathenaic neck-amphora decorated with a musical *agōn*, a black figure eye-krater, and a Siana Cup attributed to the C Painter demonstrating that Methone quickly became a major consumer of Attic figured vases. One important finding from Methone is the stability of Attic imports from the sixth through fourth centuries B.C.E. as a percentage of the total quantity of decorated fine wares. Noteworthy, however, is the curation of antique figured vases in the fifth and fourth

centuries B.C.E. across the site, perhaps best exemplified by the recent publication of a Late Archaic cup found in fourth-century B.C.E. destruction levels on the East Hill by Maria Tolia-Christakou. This demonstrates the long lives of figured vases, in contrast to Attic black gloss wares and local products from the same contexts.

The Olynthos Project: Field Work in 2018 and 2019

Lisa Nevett, The University of Michigan, Ann Arbor, *E. Bettina Tsigarida*, Greek Archaeological Service, *Zosia Archibald*, University of Liverpool, *David Stone*, University of Michigan, Ann Arbor, and *Bradley A. Ault*, State University of New York, Buffalo

The Olynthos Project, begun in 2014, is a *synergasia* between the Greek Archaeological Service and the British School at Athens, by permission of the Greek Ministry of Culture. Since 2014 the team has been undertaking fieldwork at the Classical city of Olynthos (Chalkidiki, Greece). The objectives of the project are to understand the extent of the city and the organization of its different neighborhoods; to investigate the chronology and character of settlement on the South Hill; to explore in detail patterns of domestic organization on the North Hill; and to understand the role of the city and its households in local, regional, and long-distance economic networks.

This paper summarizes the results of the final two field seasons which took place in 2018 and 2019. During these seasons, sampling of the surface material surviving on the two hills was completed, as was field walking in the study area lying beyond the fenced site. On the South Hill excavation was completed in two stratigraphic trenches, revealing important new information about the history and early settlement of Olynthos. On the North Hill, excavation and scientific sampling within house B ix 6 were completed, facilitating conclusions regarding the use of space, and the effectiveness of different strands of evidence for reconstructing household organization. Finally, work also resumed at the northern end of the hill, beyond the boundary of the formal urban grid, offering a picture of a range of activities taking place in this area that contributes to our evaluation of the neighborhood and of urban organization.

The Molyvoti, Thrace, Archaeological Project (MTAP): Ancient Stryme; 2019 Field Report

Nathan Arrington, Princeton University, *George Makris*, The University of British Columbia, and *Eli Weaverdyck*, University of Freiburg

MTAP began a new five-year campaign in 2019, investigating the coastal settlement often identified as Ancient Stryme in its broader context. Excavation in 2019 uncovered the full extent of the House of Hermes, the second house completely revealed at the site. The House of Hermes was founded ca. 400 B.C.E., closer to ca. 375, and measures 17.6 x 17.6 m. A destruction deposit dates 350–340 B.C.E. The house contains a substantial pastas, at least one courtyard, and an andron with vestibule. Several of the rooms in the house received simple paving, and there is also some evidence for a tessellated floor. From the destruction deposit,

roof tiles with Thasian stamps provide support for the identification of the city as Stryme, a Thasian colony. Excavation also included, for the first time, the region of an extramural Ionic temple detected in 2015. The majority of the finds date to the Hellenistic period, after Stryme was abandoned. Thracian pottery was also found. Surface survey extended beyond the limits of the 2015 survey, which had focused on Stryme's immediate hinterland (up to 5.5 km beyond the city wall). It examined changing patterns of land use at greater distances from the city. Seven Places of Special Interest (PoSIs) were identified. For the Classical-Hellenistic period, one important PoSI 7.6 km from the city walls produced sixteen coins. In contrast, in the 2015 survey, only two coins were recovered, raising interesting questions about economic activity on the landscape. Other periods detected were Late Byzantine and Ottoman (fifteenth–sixteenth centuries). Surprisingly little to no Roman material was found. Recovery and analysis of bone and plant remains at the site continued. Particularly productive was the fill next to a wall in the ancient harbor. Bones included many varieties of fish. More than 5,000 plant specimens were identified, with remarkable levels of preservation.

Preparing and Cooking Foods at the Classical Site of Stryme, Northern Greece

Chantel E. White, University of Pennsylvania, and *Nathan Arrington*, Princeton University

Remnants of foods recovered from a Greek neighborhood at a trading port along the north Aegean coast illustrate the dietary practices of its inhabitants during the fourth century B.C.E. The presence of crops regarded as standard Greek fare, such as free-threshing wheat, and specific dishes mentioned in Classical literature, such as bread topped with sesame seeds, suggest that food practices were an important means of maintaining a shared Greek identity among residents. Here archaeobotanical evidence is analyzed alongside artifacts such as cookware and hopper mills to showcase the preparation techniques used for making meals. Additional evidence for foods reserved for special occasions and communal drinking activities, such as the remains of wine (grape seeds) found inside an ornate bell krater, were likely part of social events that also reinforced connections to a shared Greek identity. While the physical location of Stryme is a meeting point between Greek trading routes along the coast and the inland rivers of the Thracian plain, a dearth of locally available wild plant foods in the archaeobotanical record suggests residents may have been conservative in adopting new ingredients and dishes.

The Mother of Gods on the Western Coast of the Ancient Black Sea

Dobrinka Chiekova, The College of New Jersey

This paper focuses on the worship of the Mother Goddess in the Greek colonies on the western Black Sea Coast as an expression of regional identity in a complex area of cultural contacts. In the context of the Ancient Greek colonization religion plays a key role both as an essential part in the cultural identity of different communities and peoples, and as an effective way to build bridges and acknowledge commonalities. The paper contends that the Greek colonists and the Thracians

were able to recognize simultaneously the continuum and the distinction in the forms and characteristics of their respective Mother Goddess. On several reliefs with the Thracian deity known as the “Thracian Rider,” the goddess, depicted in front of the hero, appears as Cybele but must be interpreted as the Thracian Goddess whose representation adopts the iconographic type of Cybele. The discovery in 2007 of the temple of *Meter Theôn Pontia* (The Pontic Mother of Gods) in Dionysopolis, functioning from the first quarter of third century B.C.E. to fourth century C.E., reveals new and exciting evidence, including statues, reliefs, and more than thirty inscriptions.

In conclusion, the epigraphic and the archaeological evidence demonstrate that the political aspect of the Goddess’s personality is salient and reminds her Phrygian position. All evidence points to the *polis* elite actively promoting her worship. The paper seeks to make an original contribution by arguing that a Great Goddess very similar to the Phrygian Matar was worshiped in Thrace and on the western shores of the Black sea before the arrival of the Greeks in seventh century B.C.E. The Greek colonists brought with them a different form of the same cult, an already syncretized and Hellenized version of the Phrygian goddess. The Greeks and the Thracians were capable to recognize and cherish both the commonalities and the distinct traditions of this complex divinity.

Session 6E: Colloquium Archaeological Research at Gabii

Organizers: *Marcello Mogetta*, University of Missouri, and *Nicola Terrenato*, University of Michigan

Colloquium Overview Statement

Roman cities have been excavated, written about, depicted, and reconstructed repeatedly, and yet we know little about the early stages of Roman urbanism. None of the major central Italian sites that are part of the “first wave” of urbanism has ever been extensively excavated down to the Archaic and Early Iron Age levels. Recent fieldwork in central Italy has concentrated on sites that were founded as colonies in the Mid-Republican period like Cosa or on secondary settlements like Pompeii, producing a rich record on fortifications and temples, but leaving us in the dark as to the formation of the main building types for both civic and domestic space prior to their diffusion in the Italian peninsula in the course of the first century B.C.E.

The town of Gabii, located 12 miles east of Rome, offers the opportunity to shed new light on the crucial moments in which towns and cities in central Italy are just getting started, as well as on the development of the urban fabric and on the social dynamics of quotidian urban life. A top-tier primary urban center, for most of the first millennium B.C.E. Gabii evolved in parallel with peers like Rome, playing an important role at the regional and interregional level due to its strategic position. Because of the contraction of the site from the first century B.C.E. onward, its Mid-Republican and Archaic phases are not masked or damaged by later constructions.

The archaeology of Gabii presents itself as an ideal term of comparison for exploring contemporary social and cultural developments in Roman Italy. Several international projects have been launched in the last decade at the site, building on the momentum created by the Soprintendenza of Rome's excavations in the archaeological park, leading to a research environment of strong synergy and collaboration. The results of these initiatives have revealed important and exceptionally preserved contexts featuring EIA and Orientalizing hut compounds, sacred architecture and votive deposits from the period of city formation, Archaic elite residential buildings, fortifications and town planning, thus allowing us to observe in the long term the peaks and valleys of the urban trajectory of Gabii. The proposed colloquium brings together members of the different research teams working at the site with the goal to provide a forum for sharing the wealth of information generated so far, and to foster a broader reassessment of Gabii in the field of Roman archaeology.

Discussants: *Chiara Andreotti*, SSABAP Rome, Gabii Archaeological Park, and *Rocco Bochicchio*, SSABAP Rome, Gabii Archaeological Park

The Town Planning of Gabii between Archaeology and History

Andrew C. Johnston, Yale University, and *Marcello Mogetta*, University of Missouri

Since 2007, geophysical survey and excavation have revealed that Gabii was laid out in a planned, quasi-orthogonal pattern. In view of the organic nature of its original growth as a primary nucleated settlement out of the hut clusters of the early Iron Age, the regular plan of the mature, early Republican city is indicative of an important transformational moment in its history, representing a break from previous patterns of occupation and an anomaly in the regional context. The data gathered by the Gabii Project now allows us to sketch a fuller picture of the circumstances surrounding the implantation of this extraordinary urban grid at the end of the fifth century B.C.E., which involved significant spatial and sociopolitical discontinuities with the previous settlement.

In this paper, we summarize the archaeological evidence for the creation of the quasi-orthogonal layout, situating it in its local and regional context. We suggest that the reorganization of the city represents a moment of refoundation after a period of abandonment, and that the urban trajectory of Gabii relates to specific local events. Through a reexamination of the literary record for sixth- and fifth-century Gabii, we offer a historical reassessment with a focus on two pivotal processes: the obscure *devotio* of the city by the Romans, a longstanding interpretive crux; and the dynamics of early colonization in Latium and the involvement of patrician *gentes* therein—specifically the *gens Postumia*, for Gabii. This new interpretation of the un founding and refounding of Gabii not only has important implications for our understanding of the archaeology of the city and of early Republican urbanism, but also sheds interesting light on society, religion, and interstate interactions during one of the “darkest” ages in Roman history.

The Changing Landscape of Downtown Gabii: The Imperial Necropolis from Area B of the Gabii Project

Laura Banducci, Carleton University, and Anna Gallone, Gabii Project

The developments documented by the Gabii Project shed new light on our understanding of Gabii's experiment with urban life: a story of growth, transformation, and decline. The distinction between the spaces of the living and the spaces of the dead were not clear-cut and areas considered "within the city" shifted in the minds of the locals as their social and economic needs changed.

We present the sequence of occupation of Areas A and B, where we can trace the process that led from sparse settlement to the creation of urban fabric. The establishment of a quasi-orthogonal urban grid in the late-fifth century B.C.E. expanded the previous hut habitation foci forcing a regularization of the inhabited site. The new elongated city blocks were progressively occupied by public infrastructure and private buildings.

At the beginning of the Empire, the houses occupying the Areas A and B block disappeared leaving the once built-up sectors vacant. The block was repurposed with the creation of a small burial ground and the installation of a quarry of the local bedrock. The dynamics that led to this transformation, the coexistence of industrial activities and tombs traditionally relegated to outside the perimeter of cities, give us the opportunity to explore perceptions of "urban" and "not urban." Much has been made about the location of cemeteries outside cities as "cities of the dead": the dead claimed and advertised identities through their monuments and the living interacted with them and with each other through the maintenance and visitation of tombs. Yet evidence from Gabii suggests that the importance of the spatial distinction between the living and the dead may have been overstated.

The Louvre Excavations at Gabii: Results of the 2013–2019 Seasons

Steve Glisoni, Louvre Museum

In partnership with the Soprintendenza archeologica di Roma, a team from the Musée du Louvre has been excavating since 2013 in the town center of Gabii. The excavation takes place close to the monumental compound traditionally known as the Forum since the discovery the Scottish painter and antiquarian Gavin Hamilton made in 1792. From there come some fifty pieces of sculpture now housed in the Musée du Louvre.

The research led by the team from the Louvre focuses on the city block that lies between the so-called forum and the vast urban sanctuary of Juno Gabina. The aim is to understand the topography and the transformations of the town center of Gabii and how the two monumental complexes are linked together, through the study of the street organization. The purpose is also to enrich our knowledge on the vast urban sanctuary, thanks to the exaction of a part that is barely known: the theater section.

The excavation has indeed brought to light the remains of a *domus* with an atrium, dating to the Republican era, inhabited until the Imperial period and showing an elaborate layout as well as fine architectural adornments. To the North of the area, down to the upper terrace occupied by the *temenos* of the urban sanctuary

of Juno Gabina, in front of the semicircular shape still visible in the nowadays topography, remains of a theater are emerging step by step.

Early Latium: Evolution vs. Revolution? Tradition and Innovation in Ritual Banquets in the East Sanctuary of Gabii

Gabriel Zuchtriegel, Paestum Archaeological Park

Against the legendary accounts of revolutionary innovations in the history of early Rome and Latium as told by ancient authors (starting from the foundation of the city), modern scholarship has put forward evolutionary models that tend to emphasize the *longue durée* of urban, political, and cultural developments south of the Tiber. Archaeologists have argued that Latin settlements remained on a “proto-urban” level for centuries, and that the culture of Latium continued to be a primitive reflex of Etruscan and Greek models way into the Republican period.

In my paper, I argue that evolutionism and primitivism are not the only alternative to ancient tales about Aeneas, Lavinia, and the seven kings. As the study of ritual banquets in the Santuario Orientale (East Sanctuary) of Gabii shows, archaeology can contribute to revealing the innovative character of seemingly traditional and primitive practices in religious contexts. In the period from the late-eighth to the early-fifth century B.C.E., three quite different types of ritual banquets are attested in the East Sanctuary. Each of them combines Greek and Etruscan features with local elements in an innovative and creative way.

Although we ignore the historical backdrop of the changing ritual practices in the East Sanctuary of Gabii, the data points to dynamic processes triggered by radical and complex social transformations rather than to slow and continuous evolutionary processes. Put shortly, the story about Romulus and Remus going to school in Gabii might be an invention, but that does not mean that Archaic Gabii was a primitive village that only slowly evolved into a complex urban society. In their own way, early Latin sanctuaries and settlements were extremely complex and dynamic.

The Archeological Researches in the Arx of Gabii (Excavation Campaigns 2007-2012).

Marco Fabbri, University of Rome Tor Vergata

In 2007 the Soprintendenza Speciale per i Beni Archeologici di Roma and the University of Rome “Tor Vergata” forged a new research project aiming to resume the study of the Latin city of Gabii. As part of this program, between 2007 and 2012 excavation campaigns explored different areas of the city, concentrating in particular on the previously known extra-urban Eastern Sanctuary, the fortification walls, and a monumental tripartite building located in the city arx.

Firstly, the investigations undertaken in the area of the Eastern Sanctuary enable us to better understand space organization and configuration of the cultic facilities, as well as to propose a new attribution of the patron deities of the sacred place.

Secondly, the research conducted on the eastern and northern segments of the fortification reveals interesting new details about the earliest phases of the urban setting of Gabii.

Finally, the excavation in the arx sheds new light on the city of Gabii itself, which written sources report was conquered by the trickery of Sextius Tarquinius. A new tripartite building was built during the early-sixth century B.C.E., in the area which had been occupied since the proto-historical age by prestigious residential buildings. The remains of the walls were discovered underneath a rubble tumulus intentionally built to obliterate the structures. The building's layout, along with the discovery of some fragments of architectural decoration depicting a sequence of felines and bull-head figures, lead us to argue that the Gabine complex was a duplication of the Regia of Rome. The construction of the Gabine regia thus represents crucial evidence of hegemonic interest of the Tarquins towards Gabii, while the final destruction of the city coincides with the end of the Etruscan dynasty at Rome and the institutional shift from Monarchy to Republic.

Big Digs in the Twenty-first Century: The Gabii Project Model

Nicola Terrenato, University of Michigan, and *Rachel Opitz*, University of Glasgow

Classical archaeology has long relied on "big digs," especially in Greece and the eastern Mediterranean. Centered in major ancient cities, they typically have conducted non-stop, large-scale excavations for many decades, often with the ongoing institutional support of foreign schools and multiple universities. While they have indisputably made a massive contribution to the discipline, in recent years they have come under sustained criticism. Methodological stagnation, unclear research questions, intellectual endogamy and slow publication are some of the issues that have been imputed to big digs by eminent voices in the field. It should also be noted that in peninsular Italy there have been virtually no comparable endeavors since the 1970s.

When, in the late 2000s, the Gabii Project was being designed as somewhat of a big dig, therefore, an honest reflection was needed. The conclusion was that there were still significant research benefits to be reaped from a multi-decade large urban excavation, thanks to the accumulation of knowledge and to the economies of scale. The proviso was, however, that some new strategies be deployed to streamline and open up the relevant archaeological discourse. The paper discusses the adaptations to the traditional model that were incorporated in the Gabii Project. Many of them revolve around conceptualizing the big dig as a logistical platform that makes it easier for a multiplicity of research agendas to be pursued. Methodological self-analysis and innovation are built into the field and recording practices. Digital, online publication is leveraged as a way to disseminate data rapidly and thoroughly. While the implementation of these new strategies is not always easy, the first ten years at Gabii suggest that a twenty-first-century version of the big dig is still intellectually and ethically viable.

Session 6F: Colloquium

The Impact of Economic Development on Cultural Heritage in Contemporary Turkey

Sponsored by the Near Eastern Interest Group

Organizers: *Peri Johnson*, University of Illinois at Chicago, and *Elif Denel*, American Research Institute, Ankara

Colloquium Overview Statement

Archaeological excavations have long held a central role in Turkey's cultural heritage management policies. In the past few years, numerous projects with alternative methodologies and emphases have emerged that highlight changing approaches towards the country's heritage in parallel with a particularly dynamic period in economic and social policies. Survey projects record a rural environment rapidly changing under new legislation aimed at fostering economic development at the expense of heritage landscapes. Salvage projects in landscapes to be inundated, mined, or erased by infrastructure have held a significance, especially since the 1960s, in Turkey's policies on archaeology and cultural heritage. The rapid nature of contemporary economic growth and the relatively slow nature of salvage archaeology, however, present a challenge to the effective implementation of established policies. The result is a precarity of landscapes: projects must change in parallel with rising anxiety that invaluable information on past societies may be lost in perpetuum.

These dynamics have led to the work presented in this session. The first paper introduces the recent legislative changes designed to foster development but affect negatively the status of heritage in rural areas, with the aim to examine the legal context in which archaeological research is carried out in Turkey today. The following paper turns to how urban development and wide-scale salvage archaeology has altered the character of maritime archaeology to highlight how development itself impacts research questions. The third paper introduces the recent initiative of The Anatolian Archaeology and Cultural Heritage Institute designed to respond to these changes by empowering professional archaeologists in Turkey. The next two papers describe two projects generated under the guidance of the British Institute in Ankara: *Living Amid the Ruins* and *Safeguarding Archaeological Assets of Turkey*. The former project uses the *Pisidia Trekking Heritage Trail* to focus on awareness and capacity building through social and economic benefits for local communities in an attempt to develop ways to maintain the sustainability of heritage preservation along with economic development. The latter project looks to the future and includes a survey to study public perceptions of archaeology and an online course to foster knowledge about archaeological preservation. The goal of this session is to highlight how these efforts represent the changing nature of archaeological practice in Turkey, particularly in a highly dynamic atmosphere directly affected by the swiftly shifting nature of the country's economic and social policies.

Administrative Centralization at the Expense of Rural Landscapes and Archaeological Heritage in Turkey after 2012

Peri Johnson, University of Illinois at Chicago

In December of 2012 a new law on metropolitan municipalities was adopted in Turkey with the purpose of fostering “sustainable” development and the efficient provision of municipal services. The first article of the law abolished all villages and towns in provinces designated as metropolitan municipalities and extended the boundaries of these municipalities to the provincial boundaries. With the adoption of the law, villages and towns as decentralized self-governing communities and as custodians of their land and archaeological heritage lost their legal standing. As an archaeological survey project that works closely with villages as repositories of knowledge and the nexus of local negotiations over archaeological traces in their agricultural and pastoral lands, the Yalburt Yaylası Archaeological Landscape Research Project has documented the striking changes brought about by the 2012 law in rural landscapes. This paper will discuss these changes in the Yalburt Project area through a comparison of fieldwork conducted before 2012 and afterwards. Of primary significance is the implementation of national development policies based on a governmental logic of sustainability and with international financing. This paper unpacks sustainability as understood in governmental policies on acceptable custodianship of pastoral lands and heritage within them. As Tracey Heatherington has described for Sardinia, heritage conservation projects often derive from national and international policies, and exclude local use by regulations and fencing to protect heritage. Consequently, the projects are opposed by locals. Recent projects have sought to reverse the policies of exclusion. In the logic of metropolitan municipalities, rural landscapes are obsolete and villages and towns have no custodians. Neglected by a distant municipality and deprived of local administration, archaeological traces in areas outside of designated heritage landscapes have become disposable landscapes of extraction and dumping. The solution to the conservation of archaeological heritage lies in negotiating with, and empowering, local communities to become custodians of their places and lands.

Tides of Change: New Time, New Needs, New Practices in Maritime Archaeology in Turkey

Matthew Harpster, Koç University, and *Mustafa V. Koç* Maritime Archaeology Research Center

For decades, maritime archaeological practices in Turkish waters followed a particular pattern. Collaborations with the community and field surveys helped scholars collate information about assemblages on the seafloor, and one site became the focus of an excavation for the following years. The research on assemblages from Cape Gelidonya, Ulu Burun, Pabuç Burnu, Camaltı Burnu, and others, each proceeded in this general fashion. The excavation of the Theodosian harbor at Yenikapı that started in 2004, however, theoretically changed this pattern. Conducted as a salvage project in response to the expansion of Istanbul’s metro system—part of a larger effort revitalizing the city as a whole—the project

at Yenikapı could demonstrate that the academic imperative that drove previous maritime archaeological work was no longer as dominant. Instead, the increasing speed, scale, and scope of Turkey's development was now the factor prompting maritime field work.

Maritime archaeological work in Turkey has adapted in response. Excavations of shipwreck sites are no more common than in previous years, and survey work has expanded to incorporate the tidal zone and coast, built heritage, and management plans for potential threats. Coastal survey work at Boğsak has proceeded in the shadow of the construction of a nuclear reactor, for example, whereas surveys of the Karaburun peninsula coast parallel the growth of housing developments and a new four-lane highway. These proactive efforts are enhanced by the Türkiye Sualtı Sporları Federasyonu (Turkish Underwater Sports Federation), which adopted new SCUBA certification standards in 2018 that incorporate a module on Underwater Cultural Heritage. This paper will investigate these changes and how maritime archaeology may be adapting to the new economic dynamics pushing the country's development.

Living Amid the Ruins: Archaeological Sites as Hubs of Sustainable Development for Local Communities in Southwest Turkey

Işıl Gürsu, British Institute at Ankara, and *Lutgarde Vandeput*, British Institute at Ankara

The project, supported by the British Academy Sustainable Development Programme, concentrated on a mountainous region in southwest Turkey. It builds on over thirty years of archaeological survey work directed by Stephen Mitchell and Lutgarde Vandeput, affiliated with the British institute at Ankara. Işıl Gürsu created a 350 km-long Pisidia Heritage Trail, linking twelve archaeological sites studied during the Pisidia Survey Project. Based on this research, Living Amid the Ruins concentrated on tackling the challenging issues of how to protect cultural heritage, on the one hand, and provide sustainability for present-day local communities, on the other, through multi-layered dialogues with local rural communities. Five months of anthropological and ethnographical fieldwork conducted by two experts, during which over one-hundred semi-structured interviews were conducted with members of local communities investigated the relationship that people living by archaeological sites have with the heritage. As such, the project researched the relationship of these communities with the heritage and incorporated their ideas and suggestions on how to offer a model for using cultural heritage as the engine to generate sustainable development for local communities, by fostering a sense of pride among them for hosting this heritage and empowering them in the interpretation of this heritage and in presenting it to visitors.

Safeguarding Archaeological Assets of Turkey (SARAT)

Gülşah Günata, British Institute at Ankara, *Gül Pulhan*, British Institute at Ankara, *Işıl Gürsu*, British Institute at Ankara, and *Lutgarde Vandeput*, British Institute at Ankara

The “Safeguarding Archaeological Assets of Turkey (SARAT)” project focuses on different aspects of safeguarding archaeological heritage while working with different target groups to raise awareness and increase capacity to realize its aims.

For the first time, a nation-wide survey to map public perceptions of heritage and the value it holds took place, and 3,601 people were interviewed. The results provide a necessary base line and background information for heritage workers, academia, and authorities. They show that even if knowledge is low, interest and attributed values are much higher than generally assumed.

To raise awareness and capacity, a number of initiatives are foreseen. Firstly, an online course “Safeguarding and Rescuing Archaeological Assets” provides interested individuals the opportunity to be introduced to the general (international) framework dealing with the preservation of cultural and archaeological heritage, methods to face emergency and disaster situations in museums and archaeological sites and to deal with the aftermath of such events, for instance. The first round was launched mid-March 2019 and received over 2,200 registrations within five days, providing a clear indication of perceived need among the population. Workshops for antiquities collectors, journalists and the media to raise awareness of the cultural heritage and the long-term impact of looting and illicit trade provide further ways to raise awareness on the importance of archaeological assets.

Session 6G: Colloquium

Sacred Space and the Archaeology of Landscapes from Antiquity to the Post-Medieval World

Sponsored by the Medieval and Post-Medieval Archaeology Interest Group

Organizers: *Justin A. Mann*, University of Virginia, and *Darlene L. Brooks Hedstrom*, Wittenberg University

Colloquium Overview Statement

The proposed colloquium will examine how current archaeology has treated the creation and maintenance of sacred spaces and landscapes in the broadly defined Mediterranean region from antiquity to the post-medieval period. Our understanding of sacred spaces has too often been delimited to the identification and definition of religious architecture as the locus for sacrality. The ensuing analysis, therefore, disconnects these culturally important sites from their wider social and cultural contexts. As a result, less work has been done to understand how concepts of the sacred connect with and extend beyond the precincts of religious architecture or the environmental setting of the religious built environment.

This colloquium seeks to engender a wider analysis of the archaeological record of sacred spaces and landscapes. The selected papers assess how archaeological concepts of the sacred communicate with broader socioeconomic or environmental consequences. For example, topics range from the continuity or discontinuity of religious practice and place, the topography of the sacred as revealed through archaeological survey, the economy of sacred landscapes, and the ramifications of sacred space or landscapes on daily life and local authority. Since the concepts outlined above are not restricted to a specific period, the colloquium encourages a

diachronic focus, both within and between the selected papers. Geographically, our participants address the concepts of sacred space and sacred landscapes through the Mediterranean, including Italy, Greece, and Cyprus. In sum, as archaeologists continue to confront questions of the sacred in the material record, it is hoped that the wide-ranging evidence and methodologies presented in this colloquium bring about new ways of viewing sacrality and its relationship with the landscape.

The Early Christian Landscape as Taskscape

Kilian Patrick Mallon, Stanford University

This paper argues that scholarship on sacred and religious landscapes has focused on sacred spaces and ritual without integrating those narratives with more mundane economic life. The work of builders, artisans, and administrators in churches are usually treated as separate to the religious landscape. This paper, based on completed dissertation research on the archaeology of labor in the Late Antique Church, aims to deconstruct the established binaries in scholarship between sacred and profane and between ritual and labor.

To do this is to see religious sites and landscapes not just as landscapes but as taskscapes. This concept, drawn from the work of anthropologist Tim Ingold (2002), allows us to describe an array of tasks in continual motion (taskscape) alongside an array of spaces (landscape) as integral components of a religion's history. This paper focuses on the landscape of Ravenna as a case study, a point of contact between Arian and Orthodox Christianities and between the Byzantine and post-Roman world. The city's rich evidence for tasks in continual motion makes it a perfect case study of a religious taskscape.

This paper provides new data on changes in the scale of labor mobilization, changes in the specialization of tasks, and changes in form and design according to broader socioeconomic trends. Religious and political rivalries in the city were expressed not just in ideological art, but in the scale and organization of building programs and renovations. The mobilization of workers and the tasks they carried out was an integral part of the religious landscape. At the same time, this paper highlights the contradiction that many religious spaces in Ravenna were reserved for the elite. The paper will finish with an analysis of textual accounts of the Church's ideology toward work in the *Liber Pontificalis Ecclesiae Ravennatis* and in the regulation of Church councils.

The Christianized Landscapes of Early Byzantine Corinth

David Pettegrew, Messiah College

In the opening decades of the fifth century C.E., the Corinthian Isthmus underwent a dramatic and permanent transformation of its sacred sites and associations. Known since the Archaic period to be districtly sacred to Poseidon and his sea-dwelling cohorts, the later third and fourth centuries C.E. diminished the celebration of the games and cult in his name in the center of Greece. The monumental buildings sacred to traditional deities at Isthmia, Kenchreai, and Corinth failed to survive earthquakes, raids, and other disasters of the late fourth century,

while the architectural members of the Temple of Poseidon at Isthmia were even incorporated into a massive trans-Isthmus wall constructed in the early 400s. This widespread discontinuity occurred alongside major new programs of regional construction that produced the trans-Isthmus fortification wall, Corinth's Late Roman city wall, monumental Christian basilicas in town and countryside, and a dense network of urban and rural villas. In little more than a century, the Corinthia shed its former associations with Poseidon and became dotted with new religious architecture, shrines, and saints.

Most discussions of this period and process of Christianization have focused on individual sacred sites (especially temples and churches) to address specifically religious questions about the end of paganism (or vitality of late Hellenism), religious violence, and mass conversion. Yet the creation of new sacred landscapes necessarily affected an entire configuration of sites, routes, and boundaries within the region and had extensive political, economic, and social dimensions and consequences. In this paper, I consider how three different kinds of archaeological evidence—the churches of the region, the major fortification walls, and small rural settlements and artifact scatters—collectively reflect a substantial and comprehensive transformation of the region that disrupted and remade traditional landholding patterns, the network of agricultural sites, and patterns of daily movement across the territory. Building on an important recent article by W. Caraher (“The Ambivalent Landscape of Christian Corinth,” in *Corinth in Contrast*, 2014), I highlight how this transformation was neither entirely accidental nor wholly local but reflected the deep intervention of the Roman state in the Corinthia and province of Achaia. The emergence of this sacred landscape reflects the historically contingent redefinition of the relationship of local and global in the Early Byzantine period that had long-lasting social, economic, and environmental consequences.

The Garden as Sacred Space: Pompeii's Garden Dining Spaces

Janet S. Dunkelbarger, University of Virginia

The Roman garden and Roman dining are well-studied fields in Classical Art and Archaeology, but dining in the Roman garden is conspicuously neglected. When dining in the garden or the dining spaces in gardens are mentioned in scholarship, the significance is explained within the dominant narratives of the individual fields (i.e., the Roman garden and Roman dining) as spaces for relaxation and leisure or as spaces for social performance, either by the social elite or those who emulated the practices of the social elite. However, few scholars have examined the evidence of these spaces comprehensively, and even fewer recognize these spaces as sacred.

This paper presents a portion of a study of the more than fifty-three open-air, Garden Dining Spaces (GDSs) of Pompeii. Found in domestic, commercial, and funerary contexts, GDSs are areas in a garden in which masonry or wooden couches were arranged, on which participants would recline to dine, often in the shade provided by a pergola or awning. Other masonry furniture might include tables, a masonry hearth, or bench. Water features, such as fountains or pools, and altars, including wall niches, aedicula niches, or free-standing features, are also common. In addition to the cultivation of the garden, statuary and frescoes of deities,

the hunt, or of garden scenes also contributed to the creation of GDSs. The study draws together archaeological, architectural, artistic, literary, and epigraphic evidence to reconstruct the ancient Roman dining experience in the garden and to understand its significance.

Preliminary analysis of the data reveals Pompeii's GDSs—nestled in the diminutive and expansive gardens of Pompeii's houses, vineyards, inns, and tombs—were not just spaces of leisure and social performance, but were sacred spaces integral to individual, family, and community worship of ancestors, family gods, and/or patron deities. The significance of these spaces is demonstrated by their construction across diverse contexts and their often permanent construction, which sacrificed valuable urban land and designated the garden as primarily a sacred space.

Sacredness Beyond the *Katholikon*: Middle Byzantine Monastic Landscapes of Central Greece

Justin A. Mann, University of Virginia

The Middle Byzantine period (ca. 843–1204 C.E.) witnessed a precipitous rise in the foundation of monasteries. Many of the monasteries founded (or refounded) in this period came to play major roles on both local and regional levels. As a result, well-funded and well-connected Byzantine monasteries affected change far beyond the confines of the monastic enclosure. Attica and Boeotia saw the rise of many such monasteries during the Middle Byzantine period, including the foundation of major monastic centers such as Hosios Loukas, Hosios Meletios, and Daphni. The change engendered by these monastic foundations is best evidenced in the landscape, where their activity mixed with the interests of other communities. Monastic influence, however, is more complicated than geographical or sociopolitical boundaries would otherwise indicate. Borders overlapped, interests clashed, and often monasteries contended with a variety of rivals—secular, ecclesiastical, and monastic.

The present paper will focus specifically on the sacred landscapes constructed, maintained, and reified by Middle Byzantine monasteries in central Greece, and additionally how these landscapes overlapped with other civic or ecclesiastical communities. It must be acknowledged that evidence is not found equally across the region, with some monasteries providing more material than others. This situation is due to linked causes: the current state of preservation and (as a result) the amount of past research undertaken. Using specific monasteries across the region as case studies, some well-studied and others less so, a variety of archaeological evidence will be utilized to define their sacred landscapes, including outlying chapels, *metochia*, shrines, towers, paths, and phenomenological evidence related to the topography of the landscape. The spatial and material evidence will then highlight the importance these sacred landscapes had in the development of monastic institutions and their effects on other local communities.

Evolution of the Ritual Landscape of the Athienou Region, Cyprus, from Antiquity to Modern Times

P. Nick Kardulias, College of Wooster

Humans think about their surroundings in complex ways that reflect central values in their respective societies. Landscape archaeology has emerged as a means for comprehending the spatial component. In its ability to incorporate observations of both a local and regional nature, this notion facilitates a holistic interpretation of the archaeological record as we find it on and in the ground. Some scholars examine problems inherent in explaining how topography affects resource availability and social behavior. Others approach the landscape as a medium for expressing religious and political ideologies. The particular aspects of landscape that one chooses to emphasize may vary depending on the kinds of research questions one asks. Among the dimensions that one can discern are the following: the economic landscape, with subareas concerned with subsistence, the distribution of mineral resources, and transportation routes; the political landscape, in which nucleated or dispersed settlement may reflect complexity of societal organization, and where certain topographical features are used as territorial boundaries. There is also the ritual landscape, which has mortuary, ceremonial, and other dimensions that separate a region into distinct parts.

The Malloura Valley Survey of the Athienou Archaeological Project has investigated the distribution of cultural features that span the Late Geometric to Modern Periods in a project area at the southern edge of the Mesaoria Plain. An open-air sanctuary was the focus of religious activity from the late eighth century B.C.E. to the first century C.E. Votive statues and terracotta figurines reflect the admixture of sacred traditions from the Aegean, Levant, and Egypt. Recent excavation in the sanctuary revealed the presence of Christian lamps from the Late Roman to Early Byzantine period, well after the pagan facility was thought to have been abandoned. Following a hiatus of occupation and religious activity in the eighth to eleventh centuries C.E., the adjoining settlement featured a medieval cemetery adjoining walls of a proposed chapel in the Frankish and Venetian eras. Ethnographic and ethnoarchaeological work in the surrounding area has examined the establishment of burial zones in Athienou that have undergone significant alteration that emphasize political, economic, and social, as well as religious, trends, and thus provide a valuable analogy for understanding the archaeological remains. The study reveals that the location and dimensions of sacred spaces fluctuates in concert with other cultural trends. Religious traditions are integrated into a social fabric and are as subject to change as any other component of a culture.

Philippi: The Transformation of the Sacred Landscapes from Antiquity to Modern Times

Michalis Lychounas, Ephoreia of Antiquities of Kavala

The ancient city of Philippi (refounded under this name by Philip II in 356 B.C.E.), a melting pot for Greeks, Thracians, and Romans, was already a *colonia augusta* and a Romanized bustling center when St. Paul visited it in his first European journey (49/50 C.E.). The fact that it always carried the unofficial title of

the first Christian community in Europe, and a strong connection to Paul, seems to have generated a strong wave of architectural investment in the centuries of Christian triumph (fourth–sixth century).

The excavation of the site by the French School of Athens and Greek scientific institutions, originally carried out with the purpose of unearthing a Greco-Roman site, has brought to light the Christianized urban center of the mid-sixth century. The three basilicas and a central plan edifice (octagon) so far excavated within the walled city, along with a double basilica and a chapel in the eastern Christian cemetery, present a systematic effort to re-consecrate the city in the Christian faith.

The new urban arrangement can be very telling both of the greater picture of the exercise of authority and the transfer of power from the civic center of the forum to the religious centers of the huge Christian complexes. This process of Christianization of Philippi will be dealt with in the context of the fate of the sacred spaces of the other religions in the city, but also with the developments in the nearby centers of Amphipolis and the island of Thasos. The possible differences generated with Paul's heritage will be discussed and compared with other centers associated with saints (i.e., Sergiopolis/Resafa).

The paper will finally deal with the reestablishment of pilgrimage and its consequences in the modern, local ecclesiastical history and development. What started as an endeavor to shed light on aspects of the Greek and Roman world, has led to the re-creation/reestablishment of a sacred place of Early Christianity in the context of the twentieth century. The site has become again a *locus sanctus* where group baptisms take place and which pilgrimage tours include in their itineraries as is shown from the hordes of Protestant Christians from the Far East (mainly Koreans) who visit the site annually, despite the fact that nothing remains to be directly associated with Paul or Paul's presence in Philippi.

Session 6H: Colloquium

Consumption, Ritual, and Society: Recent Finds and Interpretive Approaches to Food and Drink in Etruria

Sponsored by the Etruscan Interest Group

Organizers: *Laurel Taylor*, University of North Carolina Asheville, and *Lisa Pieraccini*, University of California Berkeley

Colloquium Overview Statement

While food has historically been mined for its potential to illuminate patterns of consumption, production, and human interaction with the environment, it is also replete with social and cultural meaning. Recent archaeological approaches to food and drink have moved beyond discussions of diet and subsistence to using food as a lens to understand constructions of status, ethnicity, power, and ritual. Food is simultaneously a product of nature and culture, is often transformed by social contexts and is a transformative tool itself. This colloquium explores the intersections between food, consumption, and ritual within Etruscan society through a purposeful cross-disciplinary approach. While a single line of inquiry, such as one based exclusively on botanical or faunal evidence, can provide evidence of diet or

ritual praxis within a circumscribed setting or period, a synthetic approach to the study of food, by exploring its meaning within multiple contexts, is the scope of this panel. Etruria provides an exceptional opportunity to examine this subject as it offers invaluable source material.

The complex role of food is best mapped through diverse evidentiary categories and this panel uses multiple lines of inquiry and approaches to explore its subject. The papers consider food and drink within visual and material culture as well as within sanctuary contexts, urban contexts and funerary contexts. The first paper, "Fish and Rites in Ancient Etruria," examines how the seafaring Etruscans incorporated fish sacrifices into ritual practice through an examination of the archaeological evidence vis-à-vis literary and visual evidence. Next, "Beyond the Banquet: Typologies of feasting in Etruscan Visual and Material Culture" considers various models of feasting and how the visual and artifactual record of the Archaic period may reveal diacritical feasting in particular. Building on this, "Feasting in Etruscan Orvieto: Bio-archaeological Evidence and Socioeconomic Implications" addresses the relationship between redistributive feasting and elite control over the landscape. The final two papers "Visual Meals and Symbolic Consumption in Etruscan Tomb Painting" and "Death—By Consumption—Interrupted: The Iconography of Hesione on Etruscan Bronze Mirrors" consider how visual narratives communicate symbolic concepts about food, drink, and/or consumption. The colloquium aims to examine how consumption functions as an important agent specifically within Etruscan ritual and social contexts. While each paper addresses different areas of research, the topics overlap in productive and mutually informing ways and share a common methodological principle—placing food, its ritual consumption and use within the cultural framework of Etruria.

Discussant: *Ingrid Eldund-Berry*, The University of Texas at Austin

Fish and Rites: Religious Practices Involving Fishes in Ancient Etruria

Daniele Maras, Soprintendenza Archeologia Belle Arti e Paesaggio per l'area metropolitana di Roma, la provincia di Viterbo e l'Etruria Meridionale

The Etruscans were famous as a seafaring people, with a special attitude towards piracy and, at times, even exercising a real thalassocracy on the seas surrounding the Italian peninsula. Therefore, it is reasonable to expect that marine fish were a crucial component of Etruscan alimentation and used as sacrificial victims and in ritual practices.

A recent contribution of A. Maggiani (*Kulte, Riten, religiöse Vorstellungen bei den Etruskern und ihr Verhältnis zu Politik und Gesellschaft* [2012] 223–234) has pointed out the relevance of offering fishes also in foundation rituals. My paper surveys the ritual contexts of fish-sacrifices in sanctuaries (Pyrgi and Gravisca) and in funerary contexts as well as the epigraphic evidence of inscribed fish-plates at Pyrgi and at Populonia. Few literary sources help to explain the function of these ritual contexts, such as the references to living *pisciculi* offered to Vulcanus in Rome according to Festus, and to the fishes with which Numa replaced human victims according to Ovid.

Additionally, I show the relevance of visual representations, including the Archaic period Tomb of the Hunting and Fishing at Tarquinia and red-figured

fish-plates, either imported or local, found in Etruria in the fifth and fourth centuries B.C.E. Notably, a wall painting of the Tomb of the Inscriptions at Tarquinia (ca. 520 B.C.E.) provides evidence for fish-offerings in funerary contexts. A young man is depicted as bowing towards a small altar and offering a fish to the pale image of an old man, naked and with a sceptre (perhaps an *eidolon*, a sort of spirit of an ancestor). Finally, a painted plaque from Portonaccio at Veii (late sixth to early-fifth century B.C.E.) represents a figure crouching near a water-basin where several sea-fishes are swimming. A recent proposal by M. Torelli (*Scritti di antichità etrusche e italiane in omaggio all'opera di Giovanni Colonna* [2011] 163–173) interprets this scene as relating to a ritual of divination through the observation of fishes (ichthyomancy), as is known for some sanctuaries of Anatolia.

Beyond the Banquet: Typologies of Feasting in Etruscan Visual and Material Culture

Laurel Taylor, University of North Carolina, Asheville

From the Villanovan through the Late Etruscan period, banqueting imagery occurs across multiple categories of Etruscan artifacts (plaques, mirrors, tomb paintings, reliefs, and ceramics) and within both domestic and funerary contexts. The iconography of these scenes is fairly formulaic with figures reclining on dining couches, surrounded by the accoutrements of feasting—vessels, food, servants, and musicians—all factors that have contributed to the identification of such images as “banquets.” Yet, perhaps because of this standard visual formula, scholars have often tended to elide “banqueting” scenes from funerary contexts with those from non-funerary contexts, potentially obscuring significant differences in critical details and symbolic value. Using Dietler’s typologies of feasting and commensal modes (*Feasts: Archaeological and Ethnographic Perspectives on Food, Politics and Power* [2001]), this paper explores the social and ritual meaning of the “banquet” in Etruscan visual language of the Archaic period and presents a more nuanced reading of consumption iconography. While scholars have often noted that the banquet is an elite display of status and power, closer examination of scenes from domestic/non-funerary contexts versus those from funerary ones reveals significant differences in the representation of food items and associated vessels.

Banquet scenes from mortuary contexts (e.g., the tombs at Tarquinia), frequently present vessels for serving and consuming wine yet depict surprisingly few food items or food-associated vessels. Conversely, feasting scenes from non-funerary contexts (the terracotta plaques from Murlo and Aquarossa), depict distinct and diverse food items as well as drinking equipment. Legible vessel types, especially imports, have correlates in the archaeological record and, I argue, signal exclusionary feasting in these scenes. Such visual constructions may express a form of diacritical feasting, a performative behavior meant to display status through differentiated foods or vessels. The symbolic language of these scenes may also help us better understand ritual feasting within the specific architectural contexts of which the plaques were discovered.

Feasting in Etruscan Orvieto: Bio-archaeological Evidence and Socioeconomic Implications

Angela Trentacoste, University of Oxford

While the importance of banquets to the social fabric of ancient Etruria is widely attested by artistic representations and the remains of dining equipment, the identification of specific banqueting events in the archaeological record is more difficult. Small quantities of organic remains recovered from tombs and special deposits are typically more suggestive of food offerings, rather than large-scale communal consumption events. In contrast, feasts should produce a significant quantity of food debris in a short period, which may be treated differently than normal refuse. Recent excavation of Cavità 254, a disused quarry cut into the tuff plateau below Orvieto, has revealed such a deposit. Dumped in a short period of time (if not a single act), the deposit has produced diverse archaeological materials related to food consumption (ceramics) and the restructuring of the urban center (roof tiles, architectural pieces), including a significant number of exceptionally preserved animal bones. Analysis of the faunal assemblage suggests that it derives from a large scale food consumption and distribution event, held in conjunction with the filling of Cavità 254 during the fifth century B.C.E. Multiple areas of production contributed animals, as strontium isotope analyses demonstrate that sheep were obtained from several locations. Food consumption on this conspicuous scale illustrates a significant degree of resource mobilization, probably organized by the same group(s) that directed the quarrying and filling of Cavità 254 and associated refurbishment of the urban center of Orvieto. Using the zooarchaeological and isotopic data from Cavità 254, this paper examines evidence for feasting and food procurement in Etruscan Orvieto. Results highlight the relationship between symbolic consumption and the movement and redistribution of agricultural resources. In this context, ritual activities provided not only a means of symbolic expression, but a powerful socioeconomic tool that could be used to articulate solidarity or reinforce hierarchies.

Visual Meals and Symbolic Consumption in Etruscan Tomb Painting

Lisa Pieraccini, University of California Berkeley

Etruscan funerary archaeology continues to provide evidence of the complex rituals dedicated to the deceased while painted tombs depict numerous gatherings and rituals including those dedicated to the funerary “banquet” specifically. But what does it mean to engage in ritual consumption in a funerary context and have we fully explored the visual narratives of specific foods and drink in the tomb? Because food materials are difficult to trace in the archaeological record (or were discarded when found last century), it is often difficult to evaluate the degree to which the images in these painted tombs reflect products actually consumed at the funerary meal. This paper examines the visual culture of food and drink as painted on the walls of Etruscan tombs and looks at how wall painting mediated the activities of the living. While the “banquet” may be a convention in Etruscan art and culture, the food items depicted in these scenes reveal valuable information about visual meals and their symbolic consumption. Why do eggs appear

held out in the hands of banqueters? Do grapes, which appear in tomb painting, have the same symbolic import as wine? A careful selection of tomb paintings from the sixth to fourth centuries B.C.E. from Tarquinia, Chiusi, and Orvieto provides a template for a deeper comprehension of the visual communication of food in Etruscan tomb narratives. This paper demonstrates how select foods and drink were an essential part of the visual rhetoric of Etruscan tomb paintings and how they expressed a specific “food culture.” Finally, this paper addresses the intersection of these visual meals with the organic discoveries from tombs—an area of study that promises new data with future excavations. This study of visual meals depicted on tomb walls allows for a broader view of Etruscan food culture as a whole.

Death—By Consumption—Interrupted: The Iconography of Hesione on Etruscan Bronze Mirrors

Alexandra Carpino, Northern Arizona University

Various concepts about food and drink appear in the narratives engraved on Etruscan bronze mirrors, artifacts that symbolized the status and prosperity of their owners and served as important forms of visual communication within the domestic sphere. These representations include both natural behaviors with symbolic overtones as well as abnormal acts such as anthropophagy. In the former category, mirrors showing an adolescent or mature Heracle suckling milk from Uni’s breast are not only the best known but also the most distinctively Etruscan. Despite what might be considered a jarring portrayal of a grown man nursing, positive concepts about food and drink are reinforced in a ritualistic manner, with the milk functioning as a transformative agent (signifying both reconciliation and apotheosis). In the second category, images that illustrate departures from accepted ideas about food and drink are stories that focus on the motif of the so-called “consumed human.” These include male figures such as Jason (swallowed by the dragon) or Aktaion (devoured by his dogs) but also, interestingly, Hesione, a Trojan princess rarely depicted in Greek art but who appears on at least three mirrors from the late Classical period.

This investigation focuses on the iconography of Hesione, the only female sacrificial victim that engravers included in their repertoire. Why was her story considered appropriate for mirror decoration when other types of human (e.g., blood) sacrifice were avoided? What does it reveal about family dynamics, power structures and the status of girls in Etruscan society? And what was the significance of Hesione’s escaped ingestion, surviving to become the bride of a hero? By analyzing the different aspects of the Trojan princess’s story included in these narratives, conclusions can be drawn with respect to how this tale of interrupted consumption reinforced cultural ideals about marriage, impiety and households in aristocratic Etruscan society.

Session 6I: Workshop

The Digital Futures of Ancient Objects: Discussing Next Steps for Collaborative Digital Humanities Projects

Moderator: *Rebecca Levitan*, University of California, Berkeley, and *Stephanie Grimes*, Ball State University

Workshop Overview Statement

The focus of the proposed workshop is on recent work which leverages digital tools in the study of classical antiquity and the itineraries of ancient objects. As participation in the Getty Institutes and other Digital Humanities oriented working groups has only been available to a small number of digital practitioners, we aim to share a general overview of the work conducted at the meetings of the Digital Institutes, as well as contributions from scholars presenting a relevant short case study of their own work or thinking-in-progress. We are particularly interested in projects which address the ways that digital tools can help scholars better understand the provenance of ancient objects, as well as how this can be visualized and spatially oriented.

Informal discussion of works in progress and discussions of problems of methodology are welcome, with the understanding that this is meant to be a constructive forum for thinking through problems, rather than a formal academic presentation of any complete academic project. In addition to surveying the most recent advances in digital research relating to mapping, modeling, and analysis of ancient objects and spaces, we hope to discuss questions such as “what should happen when a digital project is complete?” and “how can we plan for the future stewardship of digital projects, especially those with multiple authors?” Although we might look towards examples of text-based projects as examples for best (and less-than-stellar) practice, the scope of the panel would be limited to tools developed to solve the particular problems posed by material culture of classical antiquity and charting its past and future itineraries.

The ultimate goal of the workshop is to open the work of small groups of DH practitioners to the larger archaeological community in order prevent research replication, as well as facilitate possible collaborations and a larger conversation about key issues in Digital Humanities in relation to objects from the Ancient Mediterranean.

Panelists: *Danielle Bennett*, San Diego State University, *Renee Gondek*, University of Mary Washington, *Ethan Gruber*, American Numismatic Society, *Tyler Jo Smith*, University of Virginia, *Jon Frey*, Michigan State University, *Ryan Horne*, University of Pittsburgh, *Rachel Starry*, University of Buffalo, *Jacquelyn Clements*, Independent Scholar, *Adam Anderson*, University of California, Berkeley, and *Caroline T. Schroeder*, The University of Oklahoma

Session 6J: Open Session Undergraduate Paper Session

Portrait of A Mummy: An Analysis of the Function of Mummy Portraits in Greco-Roman Egypt

Anna Tessa Rodriguez, University of California, Berkeley

It is easy to assume mummy portraits were exclusively used by Greeks and Romans living in Egypt; however, evidence shows that this is not the case. Although typically seen as distinctly Greek/Roman, these objects are another logical transition the Egyptians adopted in order to strengthen their religious practices. I present a cross-cultural analysis of mummy portraits in Greco-Roman Egypt, demonstrating the efficacy of these material objects within an Egyptian religious and funerary context. In Egyptian art and archaeological material, we see form and functionality in sync. The purpose of the artistic form is literal; it is to be present in the afterworld, just as it is represented artistically and physically in the living world. Considering the importance of representation after death in Egyptian religion, whether that be verbal, written or artistic, it is clear that preserving the identity of a deceased individual through a variety of means held continual priority. In analyzing a diverse archaeological record of coffins, tomb walls, models, statues, inscriptions, portraits, and religious concepts like the *ka* and *ren*, a clear picture of the importance of the physical being tied to the spiritual is painted. Through mummification, religious texts, spells, names, tomb art, and eventually the mummy portrait, the ancient Egyptians were one step closer to truly preserving the essence of the individual and providing greater insurance for an individual's journey to and in the afterworld. This analysis demonstrates that mummy portraits were not simply pretty Greco-Roman pictures, but rather, liminal religious objects of the physical world that helped the deceased live on forever in the afterworld.

Human Behavioral Ecology and Site Selection Processes in Ancient Sardinia

Phoebe J. Thompson, Pomona College

The Ideal Free Distribution model (IFD) of Human Behavioral Ecology has increasingly been applied to studies of prehistoric and ancient settlement across the world as a means of understanding broader patterns of human movement as well as ancient human-environmental interaction. The application of this model however has been very limited across studies of the ancient Mediterranean and has focused exclusively on the patterns of settlement distribution, rather than examining the initial factors that motivated patterns of colonization. This study investigates patterns of settlement and colonization during the Nuragic, Punic, and Roman periods of Sardinia, a traditionally understudied region of the Mediterranean, using the IFD model. This study seeks a new understanding of long-term settlement and cultural interaction in Sardinia by examining metrics such as watershed size, which is a proxy for fresh water availability; net primary productivity, or environmental productivity; and the distance to local administrative centers. Under the IFD model, patterns of settlement should move from habitats of high suitability, as determined by the aforementioned metrics, to those of lower suitability over time

(Sutherland 1996; Jazwa and Jazwa 2017). Instances of colonization, motivated by the desire for total control over a habitat and its resources, should therefore create a different pattern of settlement, known as Ideal Despotic Distribution (IDD) (Bell and Winterhalder 2014). I argue that based upon prior patterns of settlement during the Nuragic and Punic periods, settlement during the Roman period of Sardinia breaks from the IFD model and instead follows the IDD model, a product of the Romans' desire to disrupt Punic control and establish hegemony in the central Mediterranean. In conclusion, by closely examining patterns of human movement on ancient Sardinia using IFD, this project adds new, broader, and environmentally based evidence to ongoing discussions of ancient colonization in the Mediterranean.

Painted Invocations: The Presence of Roman Gods in Pompeian Garden Wall Paintings

Sarah E. Bulger, Old Dominion University

Private gardens were central to elite Pompeian homes not only as places of escape from the city, but also for domestic worship. Cult activity occurred in the garden as evidenced by household altars, *lararia* in Latin, with statuettes of household gods. Wall paintings of flowers that also appear in the garden have remained unconnected to household religion. Although scholars, such as Kumbaric and Caneva (2014) or Rüpke (2011), have recognized the importance of gardens and cult activity to Pompeian domesticity separately, they have overlooked the reflexive relationship between these two institutions. Through a combination of Classical texts, modern floral morphologies, and a quantification of the depictions of specific flowers in Pompeian homes and gardens near or in *lararia*, I identify the flowers painted in Pompeian gardens and their significant relationship to certain gods and goddesses for domestic worship. The flowers painted on garden walls in Pompeii are not simply decorations, but invocations of gods and goddesses into the garden. My analysis of the floral iconography in Pompeii, albeit an esoteric data set, indicates that Venus, Adonis, Bacchus, and Iris were central to domestic worship in the city's elite homes.

Session 6K: Workshop New Approaches and Technologies in Pre-Roman and Etruscan Archaeology

Sponsored by the Etruscan Interest Group

Moderator: *Maurizio Forte*, Duke University, and *Jacqueline K. Ortoleva*, University of Birmingham, UK

Workshop Overview Statement

This workshop critically evaluates new technologies and/or methods in Pre-Roman and Etruscan archaeology. The goal is to provide a forum for exchange regarding the possibilities, and boundaries, of new approaches. While utilized in

such fields as Paleolithic and New World archaeology, Pre-Roman archaeology has been slow to adopt more pioneering technologies and methods. However, the recent use of virtual reality, remote sensing, 3D repositories, geophysical methods, space syntax, geomorphology, and cognitive science to the archaeological record have generated new avenues of research. For example, the recent digital reconstruction of a late Archaic period inscribed stele from the Etruscan site of Poggio Colla has helped us better understand otherwise unclear, yet extremely crucial text. This application has the potential to shape how we read and publish lapidary inscriptions. When applied to the buried Roman town of Falerii Novi, Space Syntax has highlighted aspects of urban design not visible with more traditional interpretation methods. Recent analyses of settlement organization has allowed new data to emerge on varying geomorphological and vegetative impacts across Etruria. The application of cognitive science and neuroscience to the tomb space in Tarquinia is generating new questions regarding the experiential nature of Etruscan funerary ritual. Scale is a key consideration at sites such as Vulci 3000, where improved technologies in digital documentation are now able to precisely focus the interpretation to a range of microns. As one of the most significant sites in Etruscan archaeology, Vulci 3000 is transforming how we understand urban space in Etruria. These data jointly create new ontologies that deserve reflection, particularly regarding their capacity to enrich more traditional approaches to the Pre-Roman record.

Questions addressed during the workshop include: How can these new approaches enrich what we already know? Is there a risk of a neo-positivistic trend in the use of technologies and mediated tools? Are they able to generate a different hermeneutic outcome and if so, how? How can new comprehensive “big data” for the reconstruction of the past be most appropriately handled?

The workshop has two main outcomes: Firstly, to educate participants about emerging methodologies in Pre-Roman and Etruscan archaeology to access and analyze cultural data. Secondly, to examine critically the potentiality and concerns of such approaches in building upon and further contextualizing established scholarship.

Panelists: *Gregory Warden*, Franklin University Switzerland, *Alessandro Nocentini*, University of Florence, *Simon Stoddart*, University of Cambridge, UK, *Fabiana Battistin*, Università della Tuscia, *Nevio Danelon*, Duke University, *Immo Trinks*, Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology, *Michael Klein*, Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology, *Antonio LoPiano*, Duke University, and *Katherine McCuster*, Duke University

Session 7A: Presidential Colloquium

The 2011–2019 Excavations at Huqoq in Israel’s Galilee

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

Colloquium Overview Statement

Since 2011, excavations at Huqoq in Israel’s Galilee have been bringing to light the remains of a monumental, Late Roman (fifth century C.E.) synagogue paved with unparalleled mosaic floors depicting a variety of biblical and non-biblical scenes. The papers in this colloquium present various aspects of the excavation results, beginning with an overview of the excavations and followed by descriptions and analyses of the synagogue mosaics, the painted and molded plaster decoration of the synagogue, the architecture of the synagogue and a medieval reuse of the building, and the coins from the excavations, including a hoard of fifteenth-century gold and silver coins discovered in 2018.

The 2017–2019 Excavations at Huqoq in Israel’s Galilee

Jodi Magness, University of North Carolina at Chapel Hill, *Shua Kisilevitz*, Israel Antiquities Authority, *Matthew Grey*, Brigham Young University, *Dennis Mizzi*, University of Malta, and *Jocelyn Burney*, University of North Carolina at Chapel Hill

Since 2011, Jodi Magness of the University of North Carolina at Chapel Hill has directed excavations in the ancient village of Huqoq in Eastern Lower Galilee, assisted by Shua Kisilevitz of the Israel Antiquities Authority. The excavations have brought to light parts of the Jewish village of the fifth to sixth centuries and the Ottoman period Muslim village of Yakuk. In this paper, we report on the results of the 2017–2019 excavation seasons, which focused on a monumental, Late Roman (early fifth century) synagogue paved with extraordinary mosaics depicting an unparalleled series of biblical scenes including Jonah and the fish; the building of the tower of Babel; and the four beasts of Daniel’s vision. There is also a Helios-zodiac cycle, and the first non-biblical story ever discovered decorating an ancient synagogue. The synagogue was expanded and reused as a public building, apparently in the later Middle Ages (fourteenth to fifteenth centuries), when the stylobates and pedestals were lifted one meter, and the aisles were paved with mosaics. The results of the Huqoq excavations contradict a widespread view that Jewish settlements in Lower Eastern Galilee declined after coming under Christian rule in the fourth century, while the imagery in the synagogue mosaics revolutionizes our understanding of late antique Judaism.

The Architecture of the Huqoq Synagogue and the Late Medieval Public Building

Martin Wells, Austin College

Since 2011, the Huqoq Excavation Project has been excavating the remains of a monumental building in the hills northwest of the Sea of Galilee. Excavation over

the last seven seasons has revealed the entire east wall, and parts of the south and north walls of a large synagogue building dating to the fifth century. The plan of the building uncovered to date indicates that it was a basilica, with the short walls on the north and south sides. A pi-shaped stylobate carried bases with columns decorated with painted vegetal designs, creating aisles on the east, north, and west sides. The plan, together with architectural fragments (decorated *voussairs*, a Corinthian capital) recovered from later medieval constructions, are typical of Galilean type synagogues.

While the plan of the synagogue is clear, if not complete, the bigger mystery is the appearance and function of the even more monumental fourteenth/fifteenth century building. The late medieval builders repurposed much of the original architecture, using the north and east walls as foundations for the walls of their larger structure. They used the architectural elements of the synagogue, either dismantled or destroyed in an earthquake, for benches around the walls and to raise the level of the floor nearly a meter. They also appear to have reused the original stylobate and column bases to support a portico roof, leaving the center of the building open to the air. This paper will examine the architecture of the Late Roman synagogue and its transformation into this enigmatic late medieval structure.

The Painted Plaster and Stucco Decoration of the Huqoq Synagogue

Shana O'Connell, Howard University

Due to its relatively delicate nature, most ancient wall painting survives in an advanced state of deterioration. In this respect the painted plaster of the Huqoq synagogue is not exceptional. However, the large quantity of fragments at Huqoq, the existence of comparable material from a small number of ancient synagogues, and digital technology make the original appearance of the painted plaster at synagogue within our reach. In my paper I discuss the remains of the painted plaster walls and columns at Huqoq as well as their phases of painting and repainting.

At present the fragments do not indicate that the interior architecture featured any true figural representation. While it is too early to fully rule out the possibility of figural motifs in the painted plaster at Huqoq, I propose that at least two types of painting derive from the imitation of marble and vegetal motifs, respectively. Even if a complete reconstruction of the painted plaster at Huqoq is impossible, the quantity of material and its consistency offers an important corpus of evidence for the decor of fifth-century synagogues in the region and the tradition of ancient painting in Israel.

Recent Mosaic Discoveries from the Huqoq Synagogue: Emerging Themes and Shifting Paradigms

Karen Britt, Northwest Missouri State University, and *Ra'anana Boustan*, Princeton University

Since 2011, the Huqoq Excavation Project has been bringing to light a monumental, Late Roman synagogue paved with stunning mosaics. As in previous seasons, the subject matter of the most recently uncovered mosaics departs in significant

ways from the common repertoire of images found in other synagogues in the Galilee. After providing an overview of the mosaics discovered in 2017–2019, we offer preliminary observations concerning their relationship to the mosaics uncovered in previous seasons, as well as to comparable material from Galilee and beyond. We argue that the distinctive character of the Huqoq mosaics challenges conventional scholarly assumptions concerning the limited range of imagery used in synagogue mosaics. In particular, the Huqoq synagogue contains a series of panels depicting narratives from the Hebrew Bible that seldom appear in other synagogue mosaics, considerably expanding the corpus of biblical scenes. The excavation is ongoing and therefore it would be premature to identify overarching programmatic principles for interpreting the Huqoq pavement. Nevertheless, a number of overlapping themes appear to recur in the panels thus far uncovered, most notably Israelite military victory over “foreign” rulers, the destructive or punitive power of the seas, and God’s guiding hand in the fate of both the people of Israel and the rest of humanity. We suggest that these emerging themes shed light on some of the pressing concerns of the Jewish community at Huqoq, even as they also demonstrate the wide variation in attitudes, preferences, knowledge, and resources from one local community to another.

The Coin Finds from Huqoq

Nathan T. Elkins, Baylor University, and Robert Kool, Israel Antiquities Authority

The coin finds from the Huqoq Excavation Project span approximately 2,400 years, from the Hellenistic period to the British Mandate, and attest to the long history of the site from antiquity, through the Middle Ages, and to the abandonment of the Arab village in 1948. The coin finds number approximately 350 in total and most date to the late fourth century C.E. Many coins come from critical contexts such as the foundation trenches of the synagogue and provide important chronological information on the site and the date of the synagogue. Other coin finds come from later periods of occupation, such as the modern village.

During the 2018 excavation season, an exceptional find was made of two medieval hoards buried in pots, containing fifteenth-century Venetian and Mamluk gold and silver coins. The careful disassembly of the two juglets revealed some 300 gold and silver coins with earrings, pendants and a ring. Venetian silver *grossi* and gold *ducati* seem to have been widely accepted as currency in the fifteenth-century Mamluk state. Their presence coincided with a chronic shortage of local silver money but more important, with the golden period of Venice’s trade on Mamluk Syria and Palestine.

Session 7B: Joint AIA/SCS Colloquium

Social Networks and Interconnections in Ancient and Medieval Contexts

Organizers: *Eleni Hasaki*, University of Arizona, *Sandra Blakely*, Emory University, and *Diane Harris Cline*, George Washington University

Colloquium Overview Statement

Social network analysis (SNA), a quantitative method used in the social sciences since the 1940s, is deployed by an increasing number of scholars to visualize and analyze interconnections in the ancient world. Data sets both textual and material support analyses that bring together in a shared methodology such diverse cultural entities as correspondence, civic institutions, trade in raw materials, political and philosophical affiliations, finely crafted goods and ritual practices. Significant methodological challenges distinguish archaeological from contemporary network studies: how, for example, to negotiate the indeterminacies of location, time, and fragmentary data; to integrate questions of materiality and agency; and to navigate the intersection between networks and Cartesian geographic systems.

The proposed AIA/SCS panel—the first with an SNA focus in the Annual Meetings—brings together a representative sample of case studies that foreground the divergences, the commonalities, and the theoretical groundwork being laid in network analyses. Their projects cover a wide chronological spectrum from Archaic times to the Early Middle Ages over broad geographical horizons stretching from eastern Mediterranean to western Europe dealing both with terrestrial and maritime contexts. The panelists utilize an array of SNA programs to mine their datasets of textual, archaeological, epigraphical, and numismatic sources.

Half the papers focus on material objects with textual force. Models of the social networks behind Beazley's world of Athenian potters support an investigation of how innovations in artistic styles may have developed and spread in the Kerameikos. The Hellenistic proxenic network of Samothrace, positioned within the archaeologies of coalition and consensus, offers a model of moral networks in which mythic, emotional, and ritual dynamics are integrated with quantitative analyses. A social network analysis of the strategic placement of monuments built by Attalus I of Pergamon shows how monuments make their political impact. Analysis of the networks of scholars working in the intellectual milieu of the Carolingian empire, and of the movement of new ideas in connection with Jupiter's cult in Roman Imperial Italy, offers models of information flows in diverse historical networks and the role of such interpersonal connections in religious change. Prosopography forms the foundation for a study of female agency in Rome in the Middle and Late Republic.

These papers together highlight new discoveries, new theoretical boundaries, and new hypotheses for investigation. They also represent the caveats which characterize the robust degree of debate within the community of scholars pursuing Social Network Analysis. That debate is positioned across the divides of chronology, region and disciplines that make up the study of the ancient and medieval Mediterranean: its continuation indexes the fruition of interdisciplinarity at the digital frontier.

Discussant: *Giovanni R. Ruffini*, Fairfield University

Maritime Networks and Moral Imagination: Samothracian Proxeny as an Archaeology of Coalition

Sandra Blakely, Emory University

Hellenistic *proxenia* decrees from the island of Samothrace offer a case study in the challenges as well as the potential for network analysis to blend qualitative and quantitative data, bridge civic practice and ritual promises, and make productive use of non-Mediterranean comparanda. Samothrace is as rich in proxenic inscriptions as the granting city is underexplored archaeologically and poorly attested in historical documents. Excavations on the island have focused on the sanctuary of the mystery cult, positioned just outside the city walls. Four inscriptions from within those walls confirm that its *proxenia* entailed maritime benefits—*asylia*, access to the *boule*, *eisploun* and *ekploun* in pursuit of trade. All of these would render Samothrace's port more welcoming, and are consistent with historical arguments, since Weber's *Wirtschaftsgeschichte* (1923), for the maritime functionality of *proxenia* decrees. The economic attractions of a Samothracian visit are deduced from its broader historical setting rather than any curated collections of material evidence. The island's Greeks seem the pioneers of Odryssian trade, benefiting from cooperative relationships with the Thracians who controlled overland networks and the river routes that tied the coasts to inland centers. The geospatial range of the island's *proxenoi* corresponds to one of five routes which ran into the Hellespont from prehistoric period onward; Samothrace itself figures in three of these sea-lanes, suggesting that the promise of its mysteries—safety at sea—was a more natural function of the island than its one poor harbor would suggest. The epigraphic data help us deduce what neither remains nor texts reveal: the island's chief export may have been connectivity itself, and its proxenic decrees the civic realization of the island's mystic promise.

Network analysis offers a methodology for synthesizing the face to face encounters in which the island's *proxenia* would be realized. The numerical data alone, however, fall short of the potential of the inscriptions. *Proxenia* represents a moral network: it both rewards past behavior and enjoins future collaboration and relies, as Mack has argued, on emotional intensity as well as economic calculation (W. Mack, *Proxeny and Polis*, 2015). This recommends an approach through the archaeologies of coalition and consensus and collective action theory which have been applied to case studies in regions from the American southwest to southeast Asia (E. DeMarrais, "Making Pacts and Cooperative acts: The Archaeology of Coalition and Consensus," *WA* 48.1:1–13). These offer models for integrating qualitative data—including mythic, emotional, and ritual dynamics—into quantitative analysis. Brought to Samothrace, this approach yields a more nuanced model for dominant nodes in the island's network, one which foregrounds the potential for some sites to prefer the mythic to the civic deployment of Samothracian affiliation. The dynamics of collective action theory offer resonance with the scale and decentralization of the proposed network, and foreground the flexibility which underwrote the longevity of *proxenia* as well as the promise of the rites.

An Examination of Epigraphical and Numismatic Evidence for the Invocation of Jupiter in Roman Imperial Italy Using Network Analysis

Zehavi Husser, Biola University

My overarching project aims to examine conceptions of the ancient Romans' highest deity, Jupiter, in Italy during the Imperial period by tracing the networks involved in transmitting components of the worship experience of the god including epithets employed, the purpose for invoking the deity, as well as how the god was propitiated. Here, network analysis is applied to various types of material and inscriptional data as a proxy for studying the transmission and distribution of ideas about the god in Roman Imperial Italy.

At this stage of the project, the focus of this paper, I analyze multiple datasets in order to better understand the actors who invoked Jupiter, which manifestations of the god they favored, and how they portrayed various forms of the deity iconographically. This paper presents a study of hundreds of epigraphic documents (including votive dedications, building inscriptions, calendars, etc.), as well as hundreds of imperial coins minted in Italy. Data is processed using the *igraph* package of R. Visualizations of one- and two-mode networks are created using *Gephi*; maps are produced using the *ggplot* package of R.

Results suggest that Jupiter was invoked by a wide diversity of actors with a range of statuses and occupations. It appears that certain types of persons were more likely than others to invoke a given form of the god. For instance, Jupiter *Optimus Maximus*, which had the widest Italian distribution of the manifestations studied, appears to have been invoked by the broadest range of actors in epigraphic evidence, but he is presented by name far less frequently by the imperial authority in numismatic evidence. Jupiter *Conservator* tends to be petitioned on inscriptional documents by actors with an official relationship to the state or city/town; correspondingly, this manifestation of Jupiter is by far the most frequently invoked in imperial coinage.

Books on the Road: Exploring Material Evidence for Social Networks in the Early Middle Ages

Clare Woods, Duke University

In order to reconstruct social networks for the early medieval period—whether friendship or patronage networks, or teacher-student relationships—scholars typically mine surviving letters and letter collections. While the information gleaned from letters is undoubtedly important, what survives from the early Middle Ages is patchy. Further, analysis of the networks we reconstruct from this data are all too often divorced from any material or geographical reality. We gain a more holistic picture of intellectual and social interaction, I argue, if we also explore the material evidence for the exchange and circulation of texts composed by medieval authors. Extant manuscripts are key pieces of physical evidence for intellectual connection, holding as they do geographical, temporal, and sometimes personal markers for interest in a particular text. Despite this, they remain an underused source in medieval network studies. This paper applies spatial and material dimensions to the project of mapping early medieval social networks by layering together two

different kinds of evidence: (1) geolocated, contemporary manuscript evidence for some of the most widely-copied Carolingian (ninth-century) texts and (2) the Roman transportation network, still a relevant infrastructure model for the early medieval period. (Data available from the Stanford Orbis project.)

When we aggregate and visualize manuscript data (whether multiple texts by one author, or multiple texts by multiple authors) patterns emerge that invite scrutiny as to the realia of book travel. In my data visualizations, a small number of ecclesiastical centers stand out for the number and range of manuscripts they owned. Layering manuscript data with a transportation network allows us to appreciate the ways in which these centers were connected beyond the known personal networks of “in-house” authors or scholars. My paper focuses on two centers, St Gall and Lyon. Although long recognized as possessing rich collections of medieval manuscripts, no one has yet considered location as a factor in these centers’ ability to acquire new texts. In fact, both St Gall and Lyon lie at or near to important nodes in the Roman transportation system, specifically in areas that were gateways to key Alpine passes. As this paper demonstrates, by including material and practical evidence to reconstruct early medieval intellectual connections, we gain a much more nuanced understanding of the ways texts and ideas circulated, of the routes books traveled, and the role of travel itself in shaping ecclesiastical libraries.

Female Agency in the Late Roman Republican: A Social Network Approach

Gregory Gilles, King’s College London

In this paper I employ social network analysis to study female agency in the late Roman republican period. My project uses female centered networks to connect women, and men, during this period as visualization enables an easier identification of different patterns of connectedness, whether they be social, familial, and/or political. With the use of the Digital Prosopography of the Roman Republic created at KCL (<http://romanrepublic.ac.uk/>), as well as various ancient sources, such as Cicero’s letters, Plutarch’s biographies and the histories of Livy, Polybius, Appian, Suetonius, and Cassius Dio, I have created familial data sets so as to identify connections within four generations (one above and two below) of the various central female nodes. Through trial and error, focusing on four generations not only enables the identification of possible repeated familial connections, but also pinpoints new connections forged with powerful men or families in subsequent generations. There are, in total, twelve different female centered networks which include over 150 elite and equestrian women from Rome with dates ranging from ca. 250 B.C.E. to ca. 10 B.C.E.

The numerous female centered networks provide data to help answer four key questions: Were marriages mainly used to cement, or initiate, political alliances between powerful men and/or families? Findings indicate that certain elite families appeared to remarry into each other every second or third generation. Was the often great age disparity between spouses intentional and the norm, or was it simply due to the military and/or political careers that Roman men had to undertake before they could marry? The networks cannot definitively answer this, but analysis of first marriages correlate with findings by Richard Saller (*Classical*

Philology 82 [1987] 21–34) and would indicate that men's public careers took precedence over marrying at a young age. Was a rich widow or divorcée an attraction for politically aspiring new man/impoverished noblemen? The majority of networks demonstrate that this is not the case. Did stepmothers play an active role in the upbringing of their husband's other children? The networks highlight that most stepmothers were of similar ages to their new stepchildren and so an active role would often not have been required.

This paper, therefore, showcases the networks that have been created from the analysis of literary materials and demonstrates how social networks can be used to answer these, or similar, historical questions. The issues with the data, and their impact on the creation of these networks, as well as their analyses, will also be discussed.

Attalus I and Networks of Benefactions

Gregory Callaghan, University of Pennsylvania

In the span of a century, the Attalid dynasty of Pergamon grew from a single city to ruling over the majority of Western Anatolia, attaining a remarkable legacy as patrons of the Greek world in the process. Gruen ascribed their success precisely to that patronage ("Culture as Policy: The Attalids of Pergamon" (2000, 17–31). An extensive series of benefactions and euergetic interventions defined Attalid foreign policy. Network analysis is a powerful tool to visualize these varied benefactions of statues, buildings, financial contributions, and other gifts. Such networks are difficult to generate, as they require a great deal of subjective judgment as to what qualifies as a link, combining evidence from literature, inscriptions, and archaeology. It is well worth the effort, however, as the resultant networks allow for holistic considerations of the entire system of Attalid patronage. The insights generated from such visualizations enable a deeper and more nuanced understanding of the ways in which Attalid foreign policy used "culture." In this paper, I explore the foreign policy of Attalus I, through an analysis of his network of foreign benefactions and alliances.

This analysis reveals three important aspects of Attalus's foreign policy. First, the scale of his network eclipsed those of Philetaerus and Eumenes I, representing a significant increase in Attalid interstate interactions. Second, the geographic clustering of the network suggests that Attalus approached local, regional, and trans-Aegean interactions differently. Third, his network presents a distinct chronology, which reveals how Attalus's foreign policy evolved over time in response to various successes and setbacks. Altogether, network analysis of Attalus's interstate interactions reveals how the dynasty's interstate relations were shaped by his reign, and the extent to which the kingdom owed its success to his foreign policy. That policy utilized the dynasty's status in the Aegean—acquired through networks of benefactions—to claim increased interstate authority for the king beyond his military capabilities.

The Social Networks of Athenian Potters (SNAP) Project: Modeling Communities of Artists

Eleni Hasaki, University of Arizona, and *Diane Harris Cline*, George Washington University

The Social Networks of Athenian Potters (SNAP) Project is the first of its kind to attempt to apply Social Network Analysis (SNA) to the study of Attic black-figure vase painting. In general, SNA seeks to uncover commonalities and links inside a network, while also revealing cliques, clusters, and groups. In our study, we used SNA to find and then graph the relationships between Athenian potters and painters—recording, visualizing, calculating, and evaluating the connections between individual artists, groups, and the shapes they made in common. In order to do so, we mined data from J. D. Beazley's *Attic Black-figure Vase-Painters* (1956) and *Paralipomena* (1971) for the names or attributed identities and their relations. We found 595 discrete entities, either people, groups, shapes of vases, or classes, with 767 relationship pairs.

SNA projects always face methodological constraints linked to the biases inherent in the available data, and our experiment was no different. The complex world of black-figure artists as described and envisioned by Beazley is seductive but is also perhaps a mirage, for he has been criticized by some for possibly populating the potters' quarter with "fictional" artists (or "hands with no bodies"). Certainly, the lack of precise definitions for his thirty relational terms such as "close to," "in the manner of," "near," and more presented a challenge for us in trying to map the relationships.

At the completion of this stage of our SNA project, we were able to build a preliminary model for the development of Athenian potters' communities spanning over 200 years, which has never been done before. Our comprehensive SNA graphs (sociograms) can highlight information often obscured in the linear format of an 800-page volume. Such visualizations allow researchers to see the panoramic view while also zooming in on specific clusters. Using centrality metrics, we were also able to evaluate who was important because of their position in the network as a broker, bridge, or influencer, as well as who was central, or peripheral, in the network, and to examine how each artist's position in the network compares with the place they appear to hold in art history based on style. We use social network metrics to compare a few relatively obscure artists who play important roles in the network with the social network metrics for prominent artists, such as Exekias or Nikosthenes. Despite the idiosyncratic and challenging nature of this particular data set, the Social Networks of Athenian Potters Project can serve as a prototype for applying SNA to other communities of interrelated artists working in the ancient world and beyond, as well as to other aspects of classical archaeology.

Session 7C: Colloquium

Origins and Romanization of Bithynia et Pontus

Organizer: *Owen P. Doonan IV*, California State University Northridge

Colloquium Overview Statement

It is a commonplace that the Pontic region remains one of the least known Roman provinces despite its cultural and political importance, particularly during the second and third centuries C.E. Recent archaeological fieldwork in this region has contributed greatly to our understanding of this diverse and complex province. This colloquium brings together results of some of the most significant excavations and surveys in north Anatolia that shed light on the urbanized core of Bithynia, the coastal cities of Pontus and the sparsely populated Pontic Alps. The chronological range of the case studies ranges from the Archaic and Classical *poleis* of Tieion and Sinope, the Hellenistic and early Roman Imperial sites of Kurul Kalesi and the Örukaya dam, and the remarkable urban transformations of Nicaea and Nicomedia as the latter emerged as the capital of the eastern empire.

The organizer will offer a brief introduction to the session (10 minutes) and moderate a discussion following the presentations. Each paper will be allotted 20 minutes. The first paper presents the results of the recent excavations at Archaic through Roman Tieion, a Milesian colony on the Black Sea coast. Important new findings on the early colony provide some of the earliest evidence for Ionian activity in Black Sea Anatolia. The presentation also considers evidence for the Romanization of the city. The second paper considers the walls of Sinope as a stage for the performance of civic power. This interpretation offers a useful context for understanding the Roman dismantling of the walls by replacing towers with arched gateways. The third paper presents the results of new excavations at Kurul Kalesi, a major Pontic stronghold in the mountains south of modern Ordu. The site offers an unparalleled example of the mountain citadels that formed the predominant military framework of the Pontic Kingdom and an in situ cult image of Kybele. Paper four examines an important strategy for creating and maintaining control of a difficult territory in northern Anatolia. Water management infrastructures were among the most visible, impressive, and ultimately indispensable systems through which Romans projected power into urban and rural communities. The fifth and sixth papers present new findings from the two great rival cities of the region. Paper five presents a new urban survey in Nikaia, while the sixth presents representations of agonistic festivals in imperial Nicomedia.

Nikaia in Bithynia: Profiles of a Roman City

Christof Berns, University of Hamburg, *Ali Altin*, Uludag University Bursa, and *Ayşe Dalyancı*, Technical University of Berlin

Nikaia (modern İznik) is situated on the shore of Lacus Ascanius (İznik Gölü). It has been a major center of the historical landscape of Bithynia from the Hellenistic period onwards and one of the metropolises of the Roman province of Pontus-Bithynia together with Nikomedia. In 325 C.E. the city hosted the first ecumenical council. The basis of our presentation is an urban survey of Nikaia/

İznik we conducted from 2012 to 2015 with funding from the German Research Association (DFG). This survey was the first systematic approach to document and analyze all stone material from the town other than the inscriptions already published in a catalog by S. Şahin in 1979. Special attention was paid to the abundant evidence of spolia reused in later buildings. We collected a broad body of material representing building activities and tomb decoration in the Roman Imperial period. A second focus was on the documentation of monumental buildings such as the impressive fortifications of Nikaia. Looking at these buildings as well as at architectural elements and tomb stones, we aim at defining patterns of representation of individual as well as collective commissioners and set them in relation to each other according to three temporal phases, roughly the first, second, and third centuries. We intend to develop an agent-based picture of the processes of Romanization in Nikaia, leaving space for diverse and sometimes contradictory developments. The overarching goals are to enhance recent attempts for a better knowledge of Bithynia and to contribute to current discussions on Romanization.

Water and Power: Investigating Roman Dominance through Water Management Systems in Corum

Emine Sokmen, Hitit University Çorum

Political hegemonies, ancient as well as modern, create and maintain their legitimacy of power through hydraulic projects. This paper argues that the Roman dominance in the Alaca district of Çorum (central Black Sea region of Turkey) arose through the construction and usage of a dam in what is now Örükaya village. This dam is a rare example of hydraulic know-how and engineering of Romans in Asia Minor. The dam has been contextualized through the investigation of hydrology, topography, climate, geology, and combining that data with the water technology that was utilized to provide water systems, the details of the social organization that dominated the landscape (cultural and natural).

The Roman dam was built with large rectangular masonry and its retaining wall lying between two outcrops with 5 meters wide and 35 meters long, has an impermeable concrete core (*opus caementicium*). Its most obvious use was collecting water, thus providing some carry-over storage from the rainy season for irrigation. This water management system imprinted on the landscape and local communities. The Romans created visual dominance through technology by shaping the landscape to their purposes in order to secure water for domestic and civic life. It has been proposed that the dam dates roughly first to second century C.E., after intervening Romans in the Northern Anatolia to end the Mithradatic dominance set their presence consistently.

Archaic Tieion: Results of Recent Archaeological Investigations and implications for Early Colonization and Romanization of the City

Şahin Yıldırım, Bartın University

The ancient city of Tieion is located on the western part of the south Black Sea littoral, next to the outlet of the Billaos river (Filyos) which was considered as the

border between Bithynia and Paphlagonia. It is known as a Milesian colony, which was founded in the second half of the seventh century B.C.E. Ionian pottery dating to the seventh/sixth century B.C.E. has been excavated on the acropolis of Tieon, confirming the dates established in the written sources for the foundation of the city.

Recent archaeological excavations in the vicinity of the acropolis have documented the ruins of several buildings belonging to the foundation periods of the city. Dug-out pit huts with stone masonry linings were found in round, oval, and rectangular forms. Within and around these structures, wild goat style ceramics dating to the last quarter of the seventh century B.C.E. and local ceramics in dark gray, black, and brown hand-made wares have been found. Strata just beneath the colonial levels have yielded the terracotta horse figurine fragments dating to the Late Geometric Period together with local wares. Thus, the concrete evidences of Greek colonization of the southern Black Sea have been acquired.

Under Roman administration, Tieion was transformed into a typical Roman city with a well-preserved ancient harbor, a temple on the acropolis, aqueduct, baths, and theater.

Theater of War: Performing Power on the Walls of Ancient Sinope

Owen P. Doonan IV, California State University Northridge

Aeneas Tacticus, *How to Survive under Siege* (40.4–5), recounts a vivid episode in which the women of Sinope fooled the invading satrap Datames into believing they were male soldiers. The women dressed in armor and clanged pots and pans to fool the enemy into thinking that the city was protected by a much larger force than they had. The importance of ancient fortification walls derived from the creation of a stage on which power could be performed as much as from their function as defensive infrastructure. A generation or two after the brave women of Sinope turned back Datames, an impressive wall complete with large towers, catapult, and arrow ports furnished with swinging wooden doors replaced the humble stone and mud brick construction on which they had promenaded. The wall impressed Strabo, who pronounced the town “beautifully walled” among other praise (Strabo, *Geogr.* XII.iii.11).

Sinope prospered under Roman administration, was host to a Roman colony, and the limited evidence indicates a flourishing Roman city. Nonetheless, at some point during the Roman administration, the city wall was dramatically altered by replacing at least three large towers with arched gates. An unusual local bronze issue from the time of Caracalla depicts a triple arched gate topped with honorific statues. This is most likely a depiction of the entrance to the city. A recent review of the destructions and plundering throughout Pontus in the early phases of Roman occupation has suggested a deliberate program of cultural erasure (Polanski 2013). Given Strabo’s praise for the walls of Sinope, the dismantling of the city walls may not have been carried out in the immediate aftermath of conquest but may have been associated with the intrigues leading up to the ascension of Septimius Severus whose rival Pertinax was backed by several cities in Bithynia et Pontus.

The Fortress of Kurul Kalesi, a Pontic Stronghold in the Final Battles between the Romans and the Pontic Kingdom

S. Yücel Şenyurt, Ankara Hacı Bayram Veli Üniversitesi

The fortress of Kurul is located 7 km south east of the modern provincial seat of Ordu, Turkey. Scientific excavations at Kurul were initiated in 2010. It was the first long-term archaeological excavation in eastern Black Sea Anatolia. The fortress, associated among others with Mithradates VI Eupator (120–63 B.C.E.), is situated on the Kurul hill at altitude of 571 m overlooking both the valley of Melet River (Melanthius) and its wide delta at the coast. It has a conspicuously strategic location that controls the coastal route of Black Sea as well as the course of Melet River. In addition to the steep slopes of the hill, the excavations have demonstrated that the fortress has a remarkable fortification wall with the gate where a seated statue of Cybele was excavated in situ in 2016. The cult image was placed in a rectangular niche (*naiskos*) in the vestibule by the gate. The architectural remains demonstrate the destruction and renovation phases under Pontic and Roman rule. Finds such as pottery, coins, metal weapons, round shots, sling bullets, terracotta, and figurines revealed at the excavations witness to the reign of Mithradates VI as well as the battles with the Roman army commanded by Sulla and Pompey. The finds from the excavations and the fortification itself clarify the Pontic defensive strategy of Mithradates VI against the Roman invasion, a pattern erased by Roman the dismantling of nearly all of the other major citadel sites in the Pontic mountains.

Session	7D:	Colloquium
Advances in Mycenaean Bioarchaeology		

Organizers: *Olivia A. Jones*, West Virginia University, *Ioanna Moutafi*, University of Cambridge, and *Kaitlyn Stiles*, University of Tennessee

Colloquium Overview Statement

Bioarchaeological approaches to Mycenaean mortuary contexts have greatly increased in recent decades producing a large amount of bioarchaeological data. Several new methods have been employed by these analyses, which have focused on various biocultural aspects of Mycenaean life and death such as disease, demography, migration, diet, and mortuary practices, while also confronting significant archaeological issues such as poor preservation, excavation methods, and the special problems posed by fragmentary, commingled remains. Despite this influx of information and significant advances in the interdisciplinary nature of our approaches, true integration of the different strands of biological and cultural data has yet to be reached. Furthermore, much of this data is site-based and has not been synthesized at a regional or supra-regional level. The goal of this session is to combine data sets and evaluate the aforementioned research themes in Mycenaean bioarchaeology in order to gain a more comprehensive picture, detect major problems, and propose realistic ways forward in the discipline.

The session is structured around representative papers tackling key issues at the forefront of current Mycenaean bioarchaeology. The papers address the following

principle questions: (1) What are best practices for excavation of Mycenaean tombs and graves? (2) How can we explore the biocultural history (osteobiography) of multiple individuals interred in a single grave within a chamber in the Mycenaean period? (3) What is the amount of trauma observed in Mycenaean samples and to what extent does it coincide with current archaeological interpretations of Mycenaean society? (4) What combination of methods is best for reconstructing ancient diet and what are the specific challenges of such approaches to Mycenaean samples? (5) How has strontium analysis improved our understanding of migration in the Mycenaean period? (6) To what extent is biodistance analysis useful in the study of biological relationships among individuals in the same cemetery, and how might the results be interpreted within the broader Mycenaean sociocultural context? (7) How can bioarchaeology contribute to a more nuanced understanding of burial practices, and to what extent is it possible to integrate cultural and biological data when facing challenges such as legacy data and poor preservation?

This session is an important opportunity to bring together Mycenaean bioarchaeologists and archaeologists in order to promote interdisciplinary collaboration.

Discussants: *Joanne M. Murphy*, University of North Carolina-Greensboro, and *James C. Wright*, Bryn Mawr College

It All Starts in the Field: How to Improve the Excavation of Human Remains in Mycenaean Mortuary Contexts and Why it Matters

Ioanna Moutafi, University of Cambridge, *Yannis Galanakis*, University of Cambridge, and *Panagiotis Karkanas*, The Malcolm H. Wiener Laboratory for Archaeological Science, American School of Classical Studies at Athens

The well-established research interest in Mycenaean mortuary archaeology has in recent years been met with an increasing number of bioarchaeological studies. Despite significant advances in interdisciplinary bioarchaeological methodologies, the main prerequisite of all our research, the excavation of mortuary contexts and the recovery of human remains, is often overlooked. An integrative bioarchaeological design for the recovery of human remains and contextual information is rarely in place before excavation, adequate resources are often lacking, the bones are seldom excavated by specialists, while financial and time restrictions are always pressing. As a result, valuable information is lost, with detrimental effects to further research.

This paper puts a spotlight on the excavation of human remains. The aim is to underline its primary significance for any successful bioarchaeological research, to review current advances in relevant excavation techniques, to identify the most common drawbacks, and to propose some effective, but also feasible, suggestions for the optimal documentation and recovery of human bones in Mycenaean mortuary contexts. Based on the recent excavation of a uniquely large Mycenaean chamber tomb at Prosilio, Boeotia, we will present a holistic excavation methodology, which addresses equally the recovery of biological, cultural, and geological data. Such an approach requires a thorough interdisciplinary design prior to the excavation, careful planning for obtaining all necessary resources, the availability

of specialists in the field, and the combination of a state-of-the-art technological package (including GIS spatial recording and photogrammetry) with up-to-date methodology for bone recording (informed by archeoanthatology and funerary taphonomy). To allow further research to reach its full potential, a successful excavation needs to ensure timely, meticulous, and fully detailed recording, recovery, and sample procurement in the field.

Parts and Parcels: Insights into the Scalar Nature of Late Bronze Age Collective Identity through the Individual

Gypsy C. Price, Appalachian State University, *Kim Shelton*, University of California, Berkeley, and *Lynne Kvapil*, Butler University

Investigations into non-palatial Mycenaean mortuary populations reveal deviations from the collective "Mycenaean" identity that have been masked by generalized, top-down models which have dominated interpretive narratives in the past. Mortuary practices involving multiple interments within a single mortuary context, such as those practiced in the Late Bronze Age Aegean, indicate an emphasis on some form/s of collective identity in death, at least, if not in life. The scale of that collectivity, however, can be difficult to discern. As collective identities are predicated on networks of interrelationships between individuals, interpretations must be built from the ground up, starting at the unit of the individual. Recent theoretical approaches to Mycenaean mortuary studies that bring the "under-theorized individual" to the forefront of interpretive frameworks give us insight into how agency and personhood construct collective identity, but it can be problematic to apply these approaches practically due to difficulties in identifying the individual in the archaeological record. This is especially true in long-term use mortuary contexts such as chamber tombs, where not only are multiple individuals interred, but they are interred at different times and often re-interred or treated in various ways.

This paper explores these difficulties through the construction and examination of osteobiographies of individuals interred in a single, central cist within a Mycenaean chamber tomb in cemetery of Aidonia, Greece. By employing a biocultural approach and focusing on the lived experiences embodied in the remains of those interred, we can elucidate individual life histories and interrelationships of the dead at level of the cist, laying the groundwork for larger scale interpretations at the chamber, tomb, and cemetery level. Studies such as this inform questions of inclusion and exclusivity amongst Mycenaean populations, providing a better understanding of the scalar nature of Late Bronze Age collective identity as interpreted through mortuary practices.

Provenance, Bones, and Strontium Isotopes

Argyro Nafplioti, University of Cambridge

The application of strontium isotope ratio ($87\text{Sr}/86\text{Sr}$) analysis to the study of archaeological human skeletal remains has revolutionized research on past population provenance and residential mobility and contributed to a nuanced understanding of the human past.

Isotope ratio analyses measure a chemical “fingerprint” within skeletal remains, which can be directly linked to food and water ingested by the individuals during life. Strontium isotopes in particular largely relate to local bedrock geology and can therefore provide direct information as to one’s geographical origin. The applicability of strontium isotope analysis depends on the variation in geology and the dietary resources locally available and is therefore directly relevant to the specific contexts examined.

Whilst America and Northern Europe have a long tradition in this type of research, it is only relatively recently that this began to be employed in Aegean archaeology. More than ten years following the announcement of the first ever strontium isotope ratio results from Bronze Age Crete in the Tenth Cretological Congress at Chania, it is high time we critically reviewed the data in hand. This paper characterizes the particularities of the Aegean context and describes what can and cannot be achieved through research of this kind. By reviewing published work in the field the author systematically assesses the potential of strontium isotope ratio research to investigate population mobility in relation to pertinent archaeological questions of cultural change and discontinuity, social organization, marital patterns and identity in the Mycenaean period. She also reviews the potential of other isotope systems to trace provenance and mobility in the past. Given the growing interest in strontium analysis among archaeologists researching in this context, as evidenced by the new studies that use (or consider using) isotope skeletal analysis, this paper is ever so timely.

Family Matters: Bioarchaeological Perspectives into Mycenaean Kinship

Efthymia Nikita, The Cyprus Institute, and *Kaitlyn Stiles*, University of Tennessee

This presentation explores the study of kinship in the Mycenaean era based on human skeletal data. Currently available methods are briefly presented, stressing their strengths and limitations. The site of Golemi Agios Georgios is used as a case study to examine the applicability of kinship analysis in a Mycenaean setting. Most scholars have assumed that chamber tomb cemeteries were comprised of kinship groups. This cemetery provides an “ideal” assemblage because three different types of tomb clusters have been identified based on: (a) the spatial proximity of the tombs, (b) the archaeological record, and (c) bioarchaeological markers. It also provides a way to test the extent to which kinship influenced the organization of the cemetery. Because this cemetery contains secondary depositions of commingled remains it represents a challenging yet commonly encountered type of Mycenaean assemblage. The sample size, ranging from 12 to 180 elements, provides an avenue through which to discuss issues pertaining to the statistical power of different tests. Analysis was based on cranial and dental nonmetric traits, which are heritable and have been used extensively in biodistance studies. The Mean Measure of Divergence (MMD) was estimated and visualized using a dendrogram to test whether the biodistance clusters matched those already identified. Binomial probabilities were estimated per trait to evaluate whether the tomb clusters exhibited a frequency of traits that was statistically unlikely to have occurred by chance, thus suggesting that the individuals buried together share a common ancestry. The results identified cases where it is likely that the individuals buried in the same

tomb cluster were related. However, these cases were scarce and the dominant pattern is one of non kinship-based clustering. These findings are discussed in relation to other lines of evidence from the cemetery indicative of social structuring, while suggestions for future research directions are provided.

Slinging Bullets: Studying Mycenaean Warfare through Skeletal Remains

Kaitlyn Stiles, University of Tennessee, and *Maria Liston*, University of Waterloo

The impacts of Mycenaean battle are rarely observed in the skeletal record. In this study, we consider cranial impact wounds and suggest potential sources of this wound type. Four crania from three Mycenaean chamber tombs at Golemi Agios Georgios (henceforth, “Golemi”), in northeast central Greece, and a single skull from the Athenian Agora offer evidence for projectile wounds with small foci. The Golemi individuals survived their wounds and healing of the bone obscured some details of the injury. Nevertheless, it is clear that each was hit with a rounded or amygdaloid object with enough force to crush the outer table of the skull. In two skulls, the wounds appear to have also impacted the inner table of the skull. The skull from the Athenian Agora suffered two perimortem wounds from high velocity impacts. One injury on the right parietal shattered the bone, with crush injuries at the point of impact and radiating fractures across the cranial vault. A second injury on the back of the skull produced an internally beveled wound, with a small impact point on the exterior. The wound resembles a small caliber bullet wound, indicating the skull was struck with considerable force at high velocity. We suggest that these wounds are the result of sling bullets or stones. Both rounded stones and amygdaloid stone and lead bullets have been identified in Mycenaean sites and illustrated in Mycenaean imagery such as on the silver Siege Rhyton from Mycenae. Although the sword was the most revered instrument of warfare in the Mycenaean period, evidence for the use of the sling indicates that significant damage was inflicted by weapons available to common soldiers. The evidence presented here illustrates the potential for the Late Bronze Age skeletal record to broaden our knowledge warfare and weapon use in the Mycenaean period.

Bioarchaeological Research of Mycenaean Mortuary Practices: Current State and Ways Forward

Olivia A. Jones, University of Groningen

Mycenaean mortuary practices have long been a popular topic for research in Greek archaeology. Traditionally this research has relied almost exclusively on material culture, such as tomb architecture and grave goods, leaving the human remains, especially those without grave goods or that are poorly preserved, without any framework for study. Fortunately, the recent increase in bioarchaeological study of Mycenaean mortuary contexts is providing useful methods and insightful data to supplement archaeological evidence and explore the complexity of burial practices; however, much of this data has not been synthesized. This paper combines data from recent bioarchaeological studies in order to evaluate patterns

within Mycenaean burials such as burial exclusion, secondary manipulation of human remains, and tomb reuse.

This paper draws on data from multiple regions and employs bioarchaeological methods including taphonomic methods, standard age and sex estimation, and radiocarbon dating. Taphonomic methods, such as bone preservation, are vital for distinguishing between purposeful manipulation versus natural damage in deposits of disarticulated and commingled human remains labeled as “secondary burials.” These methods and data demonstrate the value of questioning the evident disorder observed in some deposits of human remains. In addition, the use of standard estimations of age and sex show that burial exclusion likely occurred on the basis of age and sex in different regions and at different times in the Mycenaean period. Lastly, the use of radiocarbon dating in multiple tombs throughout the Mycenaean world allows archaeologists and bioarchaeologists to more accurately reconstruct the timing of tomb reuse and date burials lacking dateable grave goods.

Combining multiple methods within a bioarchaeological framework provides a more holistic picture of Mycenaean burial practices. This paper synthesizes and evaluates current bioarchaeological evidence of Mycenaean mortuary practices and proposes realistic ways forward for the study of these complex mortuary deposits.

Mulling over Mycenaean Diets

Anastasia Papathanasiou, Ephorate of Speleology and Paleoanthropology, Athens, and *Efrossini Vika*, Department of History and Archaeology, University of Athens

Twenty years ago, analytical breakthroughs in paleodietary reconstructions with isotopes came to confirm that the Late Bronze Age hierarchical system of organization was reflected in consumption patterns, with divisions finding their way to the table. Theoretical approaches to “taste” emerged, and Mycenaean dietary behaviors were established. This paper synthesizes older isotopic studies in light of new data and updated methodology in order to reevaluate the current paradigm on Mycenaean diets and its implications for social organization.

Recent research in Late Bronze Age sites, like Voudeni, Kalamaki, Agia Triada, Agios Vasiliios, Glyka Nera, Thebes, Lokris, Velestino, Kazanaki, and Pieria, together with methodological advancements including less studied elements, such as sulfur, call for a rigorous reevaluation of previous data on diets. The present study takes into account all the latest case studies, together with the most recent analytical advancements, with the goal to discuss whether it is still possible to link everyday diets with social organization in Mycenaean times.

The results show that traditional isotopic approaches are more difficult to show differences in everyday diets and therefore are less likely to pick up social differentiations related to food procurement and consumption. It can therefore remain impossible to talk about elite diets. Rather, it is imminent to start discussing questions like differences in the use of natural resources or food trade in prehistory, and the combination of methods, like isotopes, archaeobotany, and archaeozoology, as a standard practice. This calls for the setting of a new agenda on Mycenaean dietary studies.

Session 7E: Colloquium
Water Management and Cults in Etruria (Fourth to First Century B.C.E.)

Sponsored by the Etruscan Interest Group

Organizer: *Ugo Fusco, University of Rome "Tor Vergata"*

Colloquium Overview Statement

Interest in the archaeological and religious-historical problems connected to springs (fresh and thermo-mineral waters) has increased significantly in recent years. We thus propose to organize a colloquium on this issue, focusing on Etruria. As the title "Water Management and Cults in Etruria (Fourth to First Century B.C.E.)" suggests, the aim is to survey the main historical and archaeological issues connected to water within towns, with reference to a specific timeframe: the end of the Etruscan period and the early phases of the Roman conquest.

As concerns water management, it is essential to distinguish between the different types of springs available to a site (town, settlement, sanctuary): oligomineral and/or thermo-mineral. Whilst the former were used for all the purposes essential to the religious, civic, and economic life of the community, the latter, already in antiquity, had a prevalently therapeutic function. One objective is thus to verify, in the instances considered (the towns of Veii, Cerveteri, Vulci, Arezzo, and Cosa), how they supplied themselves with water, what types of springs were present and which structures were connected to these. We also consider it helpful to compare the data between Etruscan foundations and a newly founded city, like the Latin colony of Cosa, to identify any continuities or discontinuities in forms of water use.

The issue of cults is of primary importance for the colloquium given the very close links between religious life and water (considering both types of springs). The cultic aspect is considered from different perspectives: which sanctuaries belonging to the site in question continued to be frequented during the relevant period; what types of water management structures were in use (distinguishing between newly built structures and those reused from the previous phase); the deities venerated and, where present, the type of spring (thermo-mineral or oligomineral), with a special focus on identifying potential forms of cultic continuity or discontinuity with the preceding or following phase. The final paper of the colloquium will consider the rituals connected to the closure of water facilities and thus represents an appropriate conclusion to this topic. The time period (fourth to first century B.C.E.) was chosen to highlight some specific aspects connected to the Roman conquest, such as potential changes in water management and the relevant structures, whilst on the cultic level the aim is to identify which religious processes were attested with the Roman conquest (continuity or discontinuity in cult places and the deities venerated).

The City of Veii before the Birth of the Imperial Municipium: Water and Gods

Ugo Fusco, University of Rome "Tor Vergata"

In recent years, the state of knowledge of the site has made significant leaps forward thanks to the publications of the British School at Rome and the multiyear "Progetto Veio," started in 1996 by La Sapienza, University of Rome. From a topographical point of view, the town of Veii stands on a plateau (h 185) and is skirted by two watercourses, both still active today: the Fosso Valchetta, the ancient Cremera, and the Fosso Piordo. It has been proposed that the water supply system during the Etruscan and Roman phases was rationalized by constructing large cisterns that, thanks to specific conduits, supplied the various parts of the town, without specific infrastructure (such as an aqueduct). Of particular interest is a passage by Dionysius of Halicarnassus (XII, 15) that provides a fairly exhaustive overview of the environment and water resources of the town and territory: water is abundant, not brought in from the outside, and of excellent quality for drinking. This passage thus explains the absence of an aqueduct to supply the town with water: the site's abundant water simply made it unnecessary. In the history of Veii, the date of 396 B.C.E., the year of the Roman conquest, is without doubt the most catastrophic event suffered by the Etruscan town. As such, to determine the possible transformations or continuities of use occurring with the Roman conquest, I think it helpful to start by presenting an overview of the civic organization, water resources and sanctuaries present during the phase of the seventh to fifth centuries B.C.E. Afterwards, with the help of plans and tables, I will analytically present the following data, falling into the timeframe proposed by the colloquium:

- (1) the size and characteristics of the new settlements of the Republican period, preceding the imperial Municipium;
- (2) analysis of the water-related facilities from the previous phase still in use and description of newly built structures;
- (3) overview of active thermo-mineral springs and the potential evidence for cults;
- (4) description of the urban sanctuaries frequented during the Republican period and the type of water-related structures present;

The conclusion will compare the two historical phases examined. I believe that the methodology described is the most helpful with a view to identifying continuities and discontinuities in the use of water during the various phases of occupation, before the establishment of the imperial Municipium.

The Gift of Clepsina: The Spectacle of Water at Caere

Fabio Colivicchi, Queen's University, Kingston Canada

In 2017 and 2018, the team of Queen's University completed the excavation of the monument known in scholarly literature as "the hypogaeum of Clepsina," an underground complex dedicated by the first Roman prefect of the city. The focus of the complex is an underground room with wall paintings and inscriptions, the earliest of which mentions C. Genucius Clepsina, consul at Rome in 276 and 270 B.C.E. The text was carved on wet plaster during the construction of the building and dates it to about 273 B.C.E. with a precision that is absolutely exceptional for

such an early period. The inscription reveals a crucial piece of information, the name of the person responsible for the formal absorption of Caere into the Roman state. Clepsina was a member of the Genucii, one of the most prominent families of Rome, but was also of Etruscan—and possibly Caeretan—origin. Scholarly debate on the interpretation of the monument and the circumstances of its construction has been intense. However, all proposals so far have been based on incomplete data, since the full extent of the complex was unknown. This paper will present a complete picture of the monument, one that is much different from all previous assumptions. The “hypogaeum of Clepsina” was actually a spectacular multilevel nymphaeum with waterfalls and light effects, the earliest of its kind that survives in central Italy. Such an impressive project was sponsored by a Roman magistrate from a clan with local roots to celebrate the beginning of the new phase in the history of the Etruscan city, now fully integrated into the Roman *res publica*. Practical functionality met dazzling aesthetic experience to send a powerful message of prosperity.

Vulci 3000: The Archaeology of Water in Etruscan and Roman Times

Maurizio Forte, Duke University, Nevio Danelon, Duke University, and Katherine McCusker, Duke University

The Vulci 3000 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), a still intact and non-investigated archaeological deposit with over 1,500 years of continuous occupation. A Duke University team started the archaeological excavation of an important area close to the Big Temple in 2016. The excavation identifies several public buildings, foundation walls and, more specifically, an Etruscan cistern and a groundwater well, connected with a complex system of pipes and tunnels (still to be excavated). The concentration of these and other water infrastructures (in and off site) is mainly located close to the area of the Big Temple and not far from the Roman West Gate: this would suggest the preexistence of ritual activities in relation to the use of public water.

The Etruscans are known for their advanced hydraulic engineering, as seen by their extensive well systems connected through underground aqueducts and tunnels as well as sewerage drainage systems using slopes. Vulci, one of the major cities in southern Etruria and an economic powerhouse, would have had a large water management system spanning throughout the city. A lack of focused study on the hydraulic structures at Vulci leaves a gap in our understanding of how Vulci managed and controlled water and sewerage in the city. Water access is a crucial aspect of social relations, as well as ancient urban planning. This paper aims to examine the visible remains of ancient water systems at Vulci in both Etruscan and Roman times. We will begin by studying the three remnants of aqueducts, one coming to the city from the west, one from the north, and one from the east. The location of known wells will be noted, followed by a spatial analysis of remote sensing data to hypothesize on additional well or cistern locations and the routes of underground tunnels connecting them. We will use this analysis to discuss the

layout and management of water systems at Vulci, adding a new layer of understanding to the social, urban life of the city

Water Management at Cosa

Andrea U. De Giorgi, Florida State University, and *Ann Glennie*, Florida State University

Cosa is situated on a waterless hill; the site has no surface water, no accessible aquifers, and was never provisioned with an archetypal Roman aqueduct. As a consequence, the water supply of Cosa was dependent solely upon rainwater harvesting. Not only do domestic structures at Cosa have cisterns—a practice common throughout the Mediterranean—but public buildings, both civic and religious, are provisioned with cisterns, many of them monumental. Additional water reserves could be impounded in three large-scale stand-alone reservoirs. Though these cisterns and reservoirs have been well documented during Cosa's long excavation history, there are several related avenues left to explore. How were public cisterns maintained? How was the water utilized? Who could or could not access these reserves? Did water scarcity ever contribute to the cyclical decline noted throughout the course of the colony's history? Or was there in fact a water surplus which instead contributed to these recessions? This paper addresses the issue of water supply at a less than optimal setting. How the local agency adapted to it and, over time, developed a unique set of skills for impounding and husbanding water is the thrust of this paper.

The Economy and Cults of Water in Arezzo

Ingrid Edlund-Berry, The University of Texas at Austin

Unlike other Etruscan cities, there is little archaeological evidence for the city of Arezzo during the Archaic period since, in all likelihood, the early remains are today buried under the Fortezza and churches or other monumental structures on the hills of the city. The importance of water is documented through the Archaic votive deposit at the Fonte Veneziana outside the city limits, but it is not until the fourth century B.C.E. that we can follow Arezzo's rise to economic power through a judicious use of sources of water at places of worship and at places of production of pottery. Although, of course, all Etruscan settlements were dependent on a good water supply, Arezzo may serve as a particularly good case study for proposing a well-functioning city administration that controlled the distribution of land for sacred as well as secular purposes.

Although hardly visible today, the river Castro was in antiquity an important water source for the city (including Roman baths), and served as a boundary between the two sets of hills that constituted ancient Arezzo (conference held at the Accademia Petrarca, 18–19 December 2017; see <http://www.toscana.beniculturali.it/articoli/il-fiume-e-la-citt%C3%A0-arezzo-e-il-castro-dallantichit%C3%A0-ad-oggi>). As can be expected, the major production areas for pottery were located near the river, mostly outside the city (G. Fülle, *JRS* 87 [1997], 111–55) and cult places marked the bridge crossings leading into the city (votive deposit with bronzes,

including the “Aratore”; M. Scarpellini, *Atti e Memorie della Accademia Petrarca* 59–60 [1997–1998], 29–55). Throughout the city, springs and wells are marked as cult sites, often with votive offerings (S. Croce, S. Niccolò), and an extraurban sanctuary at Villa Fatucchi is located by a spring.

Although the archaeological evidence for water use in Arezzo during the fourth to first centuries B.C.E. is somewhat sketchy, it seems valid to state that the city benefited greatly from its location and water sources. While all of Italy witnessed changes in politics and military endeavors, Arezzo seems to have maintained a continuous profile of economic and cultural strength, probably created already in the Archaic period, but certainly enhanced with time. While the presence of abundant water may seem like an obvious requirement for success, judicious maintenance is a sign of political and economic stability that cannot be taken for granted in antiquity, or now.

A Well at Caere: Wells, Cisterns, and Ritual Practices in Etruria and Latium

Fallon Bowman, Independent Researcher

After the discovery in 2015 of a series of vases at the bottom of a well system at Caere in an apparent ritual closing, a study project was developed to determine whether or not this practice was widespread across Etruria and Latium, and what the practice could possibly mean. A survey of archaeological reports and articles on wells and cisterns published over the past one hundred years revealed some very interesting similarities and differences between them and the Caere well system. The practice of ritual deposits in wells was indeed frequent across the two areas. There seems to be some uniformity in particular during the Roman Republican period with wells containing the deposit of vases in varying degrees of completeness, and certain types of materials seem to recur in each well such as lead objects, knucklebones, and writing styli.

It appears that the ritual deposits were at least in some cases used to close off a well or cistern as it is a conduit that exists between the living and the world below, and leaving it exposed could be dangerous to the living population.

Session 7F: Colloquium

Carthage: World City

Sponsored by the Archaeology of Maghrib Interest Group

Organizer: *J. Andrew Dufton*, Institute for the Study of the Ancient World, New York University

Colloquium Overview Statement

The city-state of Carthage was a leading polity in the Mediterranean throughout the first millennium B.C.E., both in terms of its internal, urban development and in terms of its economic, military, and cultural involvement abroad. Carthage’s heritage was doubtlessly shaped by its historic and geographic context, according to traditional narratives settled by colonists from Tyre and occupying a unique

position between the Mediterranean littoral and the North African heartland. Yet Carthaginians also in turn shaped the course of Mediterranean history, not only through overseas campaigns but also through deep commercial relationships with Sardinia, Sicily, mainland Italy, and beyond. Carthage must be treated as a truly cosmopolitan environment, a perspective which invites observations on the role of the city beyond merely serving as a foil for Syracusan or Roman interests. After its Roman refoundation, the city again took on a leading role as both an economic and cultural center of the western Mediterranean, a position lasting well into the Late Antique period.

This colloquium focuses on the development of Carthaginian society, culture, and empire, its urbanism and impact both in North Africa and beyond, at any point in the course of its long history. Rather than merely situating the archaeology of Carthage within dialogues of Tyrian or Roman colonization, we invite a comparative perspective for evaluating aspects of the city of Carthage and the Carthaginian world. The collected papers focus primarily on the Punic material at the height of Carthage's influence, but also situate these developments in a much longer history of the city. They draw upon materials from recent excavations at the site itself and across North Africa, as well as presenting new synthetic approaches to published materials.

Overall, the panel—taken within the context of current scholarly interest in questions of globalization and connectivity when describing hegemonic or imperial behaviors—seeks to assess the extent to which Carthage came to manifest itself as a “world city,” regardless of the time period.

Discussant: *Josephine Crawley Quinn*, University of Oxford

The External Relations of Early Punic Carthage: Ceramic Data from the Settlement

Roald Docter, University of Ghent

The Early Punic settlement of Carthage has been investigated since the early 1980s. Since then, excavations by the German Archaeological Institute in Rome, the Universities of Hamburg, Amsterdam, Ghent, and Tunis I, as well as the Institut National du Patrimoine (Tunis) have considerably enriched our understanding of the appearance of the nascent metropolis, its architecture, and its material culture.

This paper addresses the widespread external relations of the city from its foundation—traditionally dated to 814/13 B.C.E., in historical accounts; to the late ninth century B.C.E. by C14 dating; or to the second quarter of the eighth century B.C.E. by conventional typo-chronology of the ceramics—to the end of the seventh century B.C.E. The presentation is based upon ceramic material for the early settlement drawn from a number of smaller published data sets as well as on a single large data set that is currently being published thanks to a generous grant of the Shelby White and Leon Levy Program for Archaeological Publications.

Tunisian Excavations in the Sanctuary of Ba'al (the 'Tophet') at Carthage

Imed ben Jerbana, Institut National du Patrimoine

The discovery of ash urns capped by *stelai* on private property near the area of the Sanctuary of Ba'al (the "tophet") of Carthage has led to a series of new archaeological campaigns, carried out under the Rue Jugurtha and subject to numerous constraints owing to the urban nature of the site. These works have taken place at a time when the debate surrounding the nature of the tophet has reached its limit, as it continues to be informed primarily by disparate and lacunose ancient documentary evidence. A new excavation is not only an important development in itself, but one which affords an occasion to revisit the textual record and reinterpret the sanctuary.

This project is based on a multidisciplinary approach, involving archaeologists, epigraphers, anthropologists, and zooarchaeologists. Detailed stratigraphic recording notes period-specific changes in the activities within and the function of the tophet over time, and it is now possible to speak of highly localized spatial developments thanks to these methods. If later features did not intrude onto the urns throughout the majority of periods, successive strata can even be connected to particular actions. Specific examples include layers of stone which cover the urns, or thick layers of sterile soil which constitute the end of a site phase. Furthermore, it is worth emphasizing that micro-stratigraphic recording allows the establishment of a direct relationship between the urns and their associated *stelai*. Urns and *stelai* are often found inserted in the same trench, but the former were arranged in various positions (e.g., upright or horizontal) and were sealed in different ways. Analysis of the bone assemblage is in progress, and will permit for the first time a direct relationship between the contents of the ash urns and the text of the *stelai* in this important sanctuary.

Carthaginian Imperialism: The Colonial Perspective

James Prosser, University of Michigan

The topic of Carthaginian imperialism remains understudied within the wider scholarship of the ancient Mediterranean and is typically seen as a foil to the growing power of Republican Rome. From the middle of the sixth century B.C.E., Carthage expanded its controlled territory through a combination of conquests and foundations both locally in North Africa and overseas in Sardinia, Sicily, and the Iberian Peninsula. This expansion resulted in what we now consider the "Carthaginian Empire." The relationship of Carthage to its overseas territories was complex and variable, generally involving regular tribute and specific obligations owed to Carthage in times of crisis.

I first situate the Carthaginian expansion along the lines of Carla Sinopoli's cross-cultural understanding of imperialism. I then specifically discuss the ways in which integration into the Carthaginian empire affected the development of urban centers outside of the immediate area of Carthage and North Africa. This is illustrated with case studies from Sardinia (Tharros and Monte Sirai) and Sicily (Motya and Selinunte). The historical development of these settlements and how they came under the control of Carthage is compared, before moving on to the

remains of each of the urban centers and their changes during the Punic period. Through these analyses, I illuminate the ways in which Carthaginian imperialism affected the urban development of its holdings, particularly those peripheral to Carthage.

Live and Let Live? Forms of Land Occupation by Carthage

Paul Scheding, Ludwig Maximilian University of Munich, and *Sami Ben Tahar*, Institut National du Patrimoine

During the period of Punic cultural expansion in the fifth and fourth centuries B.C.E., new emporia, settlements, and cities developed all over the Mediterranean. The idea of a territorially bounded empire ruled from the city of Carthage still features in popular accounts, even if such a traditional model was likely never a historical reality. Without firm knowledge about the strategies of Carthaginian occupation, however, the processes of settlement formation in an area have to be evaluated from the evidence itself.

Diverse forms of settlement suggest that there was a highly differentiated idea about the value of a region, which in turn required a flexible interaction with each region's inhabitants and natural resources. It is quite clear that aside from single cities and settlements larger administrative territories also existed. The *pertica* of Roman Carthage, for example, was based on the former Punic territory; the settlements within were certainly dependent on Carthage, even if they had their own city councils. Furthermore, cities were established in more distant regions like the shore of eastern Tunisia and Libya which required specific forms of communication between Punic inhabitants, indigenous communities, and Carthage itself. Interactions between Carthaginians, Greeks, and Romans have been studied primarily for their political or military importance, but the interdependent reception of culture, architecture, and urbanism can also be observed.

In this paper I discuss the various forms of land occupation by Carthaginians. Were there specific concepts for installing settlements in different microregions? Are there individual architectural and urbanistic solutions for the challenges of a given area? How does the archeological record reflect the interaction between Punic settlers and indigenous inhabitants? Starting with the example of the Punic city of Meninx (Djerba, Tunisia) and its indigenous settlement of Bourgou, I will outline the interactions of Punic settlements with both the environment and existing populations.

Carthage: A Case Study of Late Roman Tableware Trading Networks

Carina Hasenzagl, University of Ghent

The large quantities of African Red Slip Ware (ARS) produced in the Roman provinces of modern day Tunisia, Algeria, and Libya and exported across the Mediterranean world and beyond indicate both highly standardized mass production and systems of trade between producers and consumers. In analyzing these economic relationships, Carthage is of special relevance because it is not only a consumption site of ARS but also a hub for long- and short-distance distribution.

Located on the North Tunisian coast of ancient Africa Proconsularis, Carthage received ARS from potteries in (North) Tunisia and acted as a sort of switching device, keeping one part of the ARS in the city and trading the other part inland as well as shipping it across the Mediterranean basin. The fact that almost all table wares in late antique Carthage are of African provenance provides high quantities of comparable samples. This paper presents selected site-specific data from the excavations at the Bir Messaouda/Massouda site in the center of Carthage in order to gain new insights on the production, distribution, and consumption of ARS in late antiquity, and to contribute to a better understanding of Carthage's role in these ARS trading networks.

Session 7G: Open Session

Digital Frontiers in Archaeology

Underground Digitization: Digital Photogrammetry and Terrestrial Laser Scanning Applied to the Roman Hypogeum of Crispia Salvia in Lilybaeum (Sicily)

Stephan Hassam, University of South Florida, *Davide Tanasi*, University of South Florida, *Kaitlyn Kingsland*, University of South Florida, and *Rossella Giglio*, Parco Archeologico di Segesta

The hypogeum of Crispia Salvia in Marsala, Sicily (ancient Lilybaeum) gets its name from a painted inscription above a tomb naming the deceased. This uniquely well-preserved funerary chamber contains an important series of frescoes that depict a funerary banquet, a ritual dance with musician, and various pagan funerary motifs that are part of a distinctly Sicilian style for the period, and are clear antecedents to the development of paleo-Christian funerary art. The hypogeum was discovered relatively recently during the construction of an apartment complex in the 1990s, which has made it relatively underrepresented in the literature despite its uniqueness in Sicily and the excellent state of preservation of its frescoes. The site, covered by private property, is very difficult to access, contributing to the difficulty scholars face in researching the site. Considering the gradual improvement of 3D visualizing technologies, the University of South Florida Institute for Digital Exploration (USF IDEX), as part of a wider digitization project of Sicilian cultural heritage, digitized the hypogeum of Crispia Salvia in 2018 in order to increase its visibility in scholarly circles and to the public. Digitization was carried out using digital photogrammetry and terrestrial laser scanning. The results of the digitization project provide an accurate photorealistic virtual version of the hypogeum, accessible to the public and researchers interested in the frescoes and morphometrics of the site. The virtual Crispia Salvia is available to a global audience via the online viewing platform Sketchfab, and via the IDEX website (www.usfidex.com), and is being incorporated into the local museum that manages the site. This digitization project allows for greater accessibility and visibility of the site to the general public and interested research community while simultaneously allowing for international collaboration and accurate measurements for research, education, and the dissemination of knowledge and the site.

Cartography for Archaeologists in the Age of GIS

Valerie A. Woelfel, Independent Scholar

Maps play a vital role in the analysis and visualization of archaeological data. Research has shown that maps increase the recall of information in a document, and a map may be remembered more easily than the text itself. A poorly designed map can hide information, undermine an argument, or mislead the viewer. For much of the history of archaeology, a surveyor or architect trained in cartography was a common team member. In the digital age that role is often filled by a GIS specialist. That specialist may be self-taught in the software or have been through a training program with little coverage of cartographic skills.

This paper introduces a few basic concepts of cartography with the goal of encouraging archaeologists to look more critically at the maps they are creating or choosing for publication. For example, visual hierarchy focuses attention on important information while pushing other elements further down the visual plane. This creates a map that effectively communicates the patterns and connections so important in archaeology. Understanding appropriate symbology, such as different methods to visualize quantitative vs. qualitative data, is another way that archaeologists can create better maps. What to include and not include in a legend is also a basic skill that mapmakers should develop.

This paper will also take a brief look at some common mistakes made by novice mapmakers, such as leaving off vital elements and getting enticed by the special effects available in modern software. Even if not creating the map from scratch, the archaeologist should be aware of elements to look for when choosing a map for publication. Good cartography allows us to communicate with colleagues, the public, and others with the confidence to know that the message will be clear.

Gabii Unbound: Layered Narratives, Digital Outreach, and the Future of the Archaeological Monograph

Tyler Duane Johnson, University of Michigan, Matthew Naglak, University of Michigan, and Zoe Ortiz, University of Michigan

Over the past two years, members of the archaeological excavation at Gabii (Rome, Italy) have participated in the University of Michigan's "Book Unbound" Humanities Collaboratory, a multivalent initiative exploring the possibilities of enhanced, peer-reviewed digital publication formats. Featuring a multidisciplinary team from Classics, Screen Arts and Cultures, Information Sciences, the Sweetland Center for Writing, Michigan Publishing, and the Michigan Libraries, Book Unbound seeks to craft academic publications which avoid the standard linear narrative format in favor of the concept of "multilayering," offering a pyramidal range of experiences for different types of readers. Creating a multilayered publication that satisfies the needs of academic specialists while engaging a broader non-specialist audience is by no means straightforward; it requires attention to how text, media, and data are presented and involves deep collaboration between authors, editors, technologists, and designers. To this end, the project has brought together disciplinary and functional specialists to develop digital publications for three unique long-form projects from the worlds of archaeology, film, and writing.

It seeks to elaborate on existing best practices and provide ongoing guidance in the creation of effective multilayered publications.

With Book Unbound nearing completion, we present our preliminary results, including an initial look at the new digital features in the upcoming Gabii Volume 2 publication. At the same time, we consider our efforts in utilizing layered narratives to engage non-specialists, whether the general public or students in the classroom. Although each field in the humanities faces unique challenges, our work has clarified some of the general challenges involved in using digital data to engage a diverse audience. It is hoped that an open discussion of our achievements and failures will encourage other teams to seek out the extensive and involved forms of collaboration necessary to take the next steps in digital data publication.

pXRF Analysis and 3D Scanning of the Prehistoric Paintings in the Genovese Cave, Levanzo, Sicily

Andrea Vianello, University of South Florida, *Davide Tanasi*, University of South Florida, *Robert H. Tykot*, University of South Florida, *Kaitlyn Kingsland*, University of South Florida, and *Elisa Bonacini*, University of South Florida

The Genovese Cave, discovered in 1949 on the islet of Levanzo in the Egadi Islands of western Sicily, has prehistoric engravings and painted art with the most complex pictures and largest cycle of depictions in the south-central Mediterranean. The red-painted figures are thought to date to the Late Mesolithic (ca. 7000 B.C.E.), and the black-painted figures to the Late Neolithic-Chalcolithic (ca. 3500 B.C.E.). Non-destructive elemental analyses using a portable XRF were done on many figures to determine the types of pigments used.

Terrestrial laser scanning of the main chamber was performed to study the layout of the paintings and observe them from multiple viewpoints and different types of lighting. We had previously performed a limited analysis of visual perspectives, which in comparison provides insights on the actual usefulness of 3D scans for these types of studies. The high level of detail of the texturized 3D models is providing additional appreciation of the layout and composition of the scenes and depictions, helping particularly in visualizing overlapping scenes on stone independently by changing viewpoints and illumination. Similar layering of images is common in rock art and cave paintings elsewhere in prehistoric Italy. The current research suggests that the observation point and the lighting were the main factors to consider in accessing some images, and indeed obscuring others. This makes it possible to reread the multi-layered scenes depending on different viewpoints. This may reveal a path within the cave along which scenes are revealed in succession, or different areas in which the viewpoints concentrate, pointing to separate panels, perhaps marking different times of use of the cave.

The combination of pXRF data, which discriminate figures on a compositional basis, and 3D data that helps in finding viewpoints is particularly helpful in our attempts to compare different areas of use both chronologically and spatially.

Designing Digital Antiquity: Approaches toward Immersive Applications in Archaeology

Will Loder, University of Arkansas, *Rhodora G. Vennarucci*, University of Arkansas, and *David Fredrick*, University of Arkansas

Digital applications have inundated the field of archaeology in the last twenty years. This rapid transformation has revolutionized how archaeologists conduct research, educate students, and engage the public. 3D reconstructions are now common accompaniments to presentations and publications (e.g., Opitz et al., *A Mid-Republican House From Gabii* [2016]), and other digital programs such as ARC-GIS help archaeologists perform larger scale top-down analyses of sites that provide valuable insight into aspects of the ancient world (e.g., Kaiser, *Roman Urban Street Networks* [2011], Poehler, *Measuring the Movement Economy* [2016]). While useful, they lack the “lived experiences” of Roman society. What did an individual experience walking along the most trafficked pathway? Approaches to this question have largely been reserved in scholarship for phenomenological thought exercises after analyzing archaeological evidence (e.g., Hartnett, *The Roman Street* [2017]). These informed, descriptive scenarios paint a holistic picture through experiential analysis of material culture; however, they remain verbal representations.

By integrating educational game design principles like procedural rhetoric for learning (e.g., Bogost, *The Rhetoric of Video Games* [2008]) into an interactive 3D application designed to afford a sense of place, this paper presents an innovative analytical resource for investigating embodied experiences in past environments. More specifically, this paper presents the methods and theoretical approaches behind the creation of an immersive virtual reality application of the Felt Shop of Verecundus on the via dell’Abbondanza in Pompeii (IX.7.5–7), built with on-site photogrammetry and 3D assets placed in the Unity 3D game engine for use on the Oculus Quest. As part of the Virtual Roman Retail project, this model is used to explore the multisensory experiences of Roman street life and commercial architecture, helping us to better understand how transient environmental stimuli (e.g., lighting, sound) impacted the rhythms (movement, social interactions) of urban society.

Session 7H: Colloquium

The Archaeology of Traveling and Cult Practices in the Ancient Mediterranean

Organizer: *Erica Angliker*, ICS-University of London

Colloquium Overview Statement

In antiquity, the fantastic interplay of sea, land, large islands, small archipelagos, and coastal areas in the Mediterranean fostered complex interactions and gave rise to a rich variety of religious space, from easily accessible coastal sites to more secluded rural sanctuaries. Such interrelated cultic places served as cultural terrains for communication and interaction on a regional and supra-regional level. Central to some of them was the undertaking and completion of a journey.

As residents and visitors moved through sea- and landscapes to reach these cult sites, they helped create networks and articulate social functions and meaning, from control over land to community identity and human connections. Although Mediterranean archaeology has dedicated a lot of attention to networks, trade and intercultural exchange maritime religion and travelling has been overlooked by scholars. The aims of this colloquium are to trace evidence (archaeological, literary, and epigraphical) of travel to cultic sites in the Mediterranean and investigate further the cultic structures used by the travelers. The first paper, therefore, discusses seawards sanctuaries of Aphrodite in the eastern and central Mediterranean and shows that most of these were established in contact zones of trade and travelling. The second paper shows how sailors carrying their patron deities by sea established a complex network of seaside cults, sanctuaries, and votives during the Classical era. The third paper examines select sites in the Adriatic during the Roman period in order to trace the development of the marine belief system. The fourth paper assesses the balance between international and local cults by examining archaeological assemblages deposited by those travelling to Yeronisos and to nearby Cape Drepanum. The fifth paper examines internal traces of travel at the Cycladic sanctuary of Kea, where a cult was established in an abandoned settlement and used by local and distant travelers. The final paper in this panel offers a fascinating glimpse of the experience of visitors engaged in sacred tourism in Egypt, where they visited the Memnon colossus. Collectively, the papers in this panel shed light on the underexplored topic of religion, travel, and cultic practice in the ancient Mediterranean by scrutinizing various issues such as the movement of people and its relation to the locations of cultic sites along sea routes, cultic installations that provided travelers with space for their religious practices, the topography of these sanctuaries and the gods worshiped in the context of seaborne travel, and the travelers themselves. The six papers presented here cover not only different areas of the Mediterranean (Adriatic, Cyclades, Cyprus, Egypt, the eastern and central Mediterranean) but also a vast span of time from the Bronze Age to the Roman period and Late Antiquity.

Discussant: *Mantha Zarmakoupi*, University of Pennsylvania

Sanctuaries of Aphrodite: Multicultural Contact Zones in the Context of International Seaborne Trade in the Late Bronze and Iron Age

Martin Eckert, Archaeological Museum Hamburg

Although the focus of Mediterranean archaeology is shifting towards maritime networks, seaborne trade, and intercultural exchange (A. G. and S. Sherratt, A. B. Knapp, E. H. Cline), far less attention has been paid to individual protagonists in these areas or the facilities and institutions used by them (e.g., shelter and supplies for seafarers and places that served their social and religious needs). This paper tries to cover this gap by examining seaward sanctuaries of Aphrodite based on excavation reports, monographs, personal visits and on-site examination, paleogeomorphological and nautical studies, as well as literary and epigraphic sources. It covers sanctuaries throughout the eastern and central Mediterranean

(Kition, Palaepaphos, Polis, Milet, Thera, Kommos, Kenchreai, Locri, Gravisca) focusing on their topography, architectural settings, their body of finds (especially foreign votives and imports), and the presence of foreign deities and their adaptation by local populations. Its aim is to show that a significant number of seaward sanctuaries of Aphrodite and related Cypriot-Near Eastern goddesses were intercultural contact-zones for international seaborne trade. By contrast, some of the deity's cult sites, primarily those later established in the hinterland, served other functions and must therefore be methodically separated from the seaward sanctuaries. Moreover, seaward sanctuaries of other, primarily female deities (Hera, Artemis, Kybele, Hathor, and Astarte) but also of Apollo, the Great Gods, Herakles-Melqart, Baal, and Amun should be studied together within the context of international harbor- or contact-sanctuaries. The detailed study presented in this paper concludes that their rich material sheds light not only on the protagonists of international maritime trade as well as their seaways and modes of operation, but also on the processes of cultural transfer and the institutions introduced to provide solutions for various challenges confronting early societies that grew from the agglomeration of a broad array of foreigners in harbor cities and emporia throughout the Mediterranean.

Thetis and the Nereids as Patrons of Ancient Greek Mariners

Amelia B. Brown, Queensland University

Archaeological evidence shows ancient Greek sailors carried their patron deities by sea as images and ideas, establishing a complex network of seaside cults, sanctuaries, and votives by the Classical era. Aphrodite, Artemis, and Hera are prominent at coastal locations, yet most studies of the Nereids treat them as figures of mythology and literature rather than cult. Yet Herodotus (7.191) credits Magi with the Persian navy at Cape Sepias ("Cuttlefish") as sacrificing to Thetis and the Nereids to end a storm, advised by Ionians that the Cape was sacred to Thetis, as she was carried off by Peleus there. Magnesian mariners probably first named the Cape after its resemblance to a cuttlefish viewed from the sea, but it was Ionian sailors with the Persian fleet who advised the Magi, and made the connection between myth, place, and ritual. While not every literary toponym can be connected with real cult topography, Classical worship of Thetis, the Nereids and Artemis by mariners does help explain commonalities at sanctuaries in coastal Thessaly and Euboea, to the east and up into the Black Sea. Sea routes, epigraphy, and common coastal cults link Thessaly to Skyros, Lemnos, the Hieron at the mouth of the Black Sea, and even the far northern island of Leuke, granted to mariners by Thetis to ensure a safe haven there (Philostratus Heroicus). Devotion to her accompanied her son Achilles at ports around the Black Sea. Archaeology and epigraphy thus provide another perspective on the textual tradition, and help explain common place-names, sanctuaries and cult practices related to the Nereids.

Island Pilgrimage: Aphrodite, Apollo, and Sacred Travel in Western Cyprus

Joan Breton Connelly, New York University

The Pan-Hellenic sanctuary of Aphrodite at Palaepaphos, among the most sacred places on earth, drew pilgrims from across the Mediterranean from the Bronze Age through Roman times. The shrine is roughly 23 km, or a day's walk, from Nea Paphos and its great port. In contrast, the pilgrimage destination of Yeronisos ("Holy Island") sits 18km to the north of Paphos. In the first century B.C.E., the islet became a significant setting for local worship of Apollo. This paper examines the venerable pilgrimage tradition of the Paphos region and contrasts sacred travel to the great Panhellenic sanctuary of Aphrodite with the short sail to the small, remote, ex-novo shrine of Apollo. It explores larger themes of international and local cult, periphery and center, traditional Cypriot worship and its fusion with Ptolemaic Egyptian cult interests.

In the sixth century C.E., three Christian basilicas were erected on the mainland just opposite Yeronisos at Cape Drepanum. Known today as Agios Georgios tis Peyias, the place name suggests St. George was sacred here from at least the Justinianic period on. Recent excavations at the small harbor of Maniki that serviced this site reveal vast dumps of Roman amphorae at shoreline. These "Gaza jars" (fourth-sixth centuries C.E.) and quantities of Palestinian "bag-shaped" amphorae (fifth-sixth centuries C.E.) attest to pilgrimage movement between Agios Georgios and the famous monastic centers of south Palestine during late Roman/Early Byzantine times. Thus, across the centuries, Cape Drepanum and its little island remained an important destination for sacred travel, just as the process of crossing the water remained a dynamic act of purification in approaching the divine.

Pathways to the Past: Travelling to Cult Places of Abandoned Settlements in the Cyclades in the Late Bronze Age and Early Iron Age; A Case Study of Ayia Irini in Kea

Irene S. Sanches, EPHE – Paris

This presentation explores long-forgotten traces of travel in the Cyclades. Certain cult practices were established and conducted in long-abandoned settlements in the archipelago in the Late Bronze and Early Iron Age. One can infer from the archaeological evidence that locals as well as long-distance travelers were involved. The settings of these cult sites, seemingly remote from settlements, signified a distance that had to be covered by occasional or regular visitors. The island of Kea is an inspiring case study. The Temple at Ayia Irini remained a cult site after the settlement stopped serving a residential function. Some still partly unexplored sites on the island have yielded traces of human activity from the twelfth century B.C.E. to the Late Geometric Period. Combining a wide range of evidence, including shifting settlement patterns and navigation routes, I retrace a dense network of ancient footpaths including that of *kalderimi*, the modern road network. With the help of geological and geomorphological maps, I draw one of the Late Bronze and Early Iron Age routes in Kea. I also estimate the distance and time needed to travel from potential sites to Ayia Irini and back. Long distance travelers may also have participated in the rites performed at the abandoned settlement—a seaside

location and one of the island's safest natural harbors. Finally, I show that measuring the distances traveled by worshippers offers insight into how communities and individuals viewed the abandoned site and why shifts in cult practices were recorded. In sum, my paper examines how travel distances were perceived by ancient communities in Kea and within the Cycladic context as a whole.

Sacred Tourism in Egyptian Thebes: The Vocal Miracle of Memnon

Patricia A. Rosenmeyer, University of North Carolina, Chapel Hill

In 130 C.E., Hadrian and Sabina sailed up the Nile to visit the Memnon colossus in Egyptian Thebes. A century earlier, an earthquake had damaged the monolith: its head fell off and the base began to emit a high-pitched noise at dawn. Scholars now think the sound originated from the cracked base expanding at sunrise, but in Hadrian's time, the statue was honored as the Homeric hero Memnon, lamenting his fate each morning to his mother, Eos. Hearing Memnon's voice was a mark of divine favor, and visitors from diverse backgrounds (e.g., emperors, soldiers, poets) traveled to this desert site to experience the vocal miracle, leaving behind elaborate *proskynemata* on the statue's surface.

A total of 107 inscriptions (Greek and Latin, prose and verse) exist in situ, spanning two centuries: the earliest documented visitor was Strabo in 24 B.C.E.; the latest inscription dates to 205 C.E. Most express religious awe mixed with a kind of "worship" of Homer and the Greek past; in addition, they reveal names (including four women), dates, occupations, details of the journey (overland or by boat) and even a kind of "postcard mentality" ("wish you were here!").

The Memnon inscriptions offer a fascinating glimpse into the expectations and experiences of visitors engaged in sacred tourism in Egypt during the first two centuries C.E. Some inscribers went on to leave their names at neighboring sanctuaries; but unlike other sacred sites, the cult of Memnon was based on aural, not visual, evidence. This paper highlights those inscriptions that clearly describe both travel to and behavior at the sacred site, emphasizing the sonic and ephemeral nature of the Memnon statue's "epiphany."

The Maritime Belief System in the Adriatic during the Roman Era (Third Century B.C.E. – Second Century C.E.)

Federico Ugolini, ICS - University of London

During the Roman era, Adriatic port cities hosted a complex web of sanctuaries and coastal shrines, the remains of which offer unique evidence of religious practices involving sailors, seafaring, and maritime trade. Although some scholarship has looked at isolated examples of religious practices at such sights (Alfieri 1938; Brusin 1938; Maioli 1980; Bertacchi 1990), little attention has been paid to the network of maritime sanctuaries in the Adriatic, even though this large sea lay at the heart of the Roman Empire. This paper is the first to examine the maritime sanctuaries of Roman Adriatic centers (e.g., Aquileia, Ancona). Drawing on literary, geographic, and archaeological sources, it traces the development, operation, and relevance of the maritime belief system in the Adriatic. The first part focuses

on the archaeological evidence of travel and its relation to religious, devotional, and ceremonial activities, as well as on social and commercial routes and connectivity. The second part considers the historical background of the aforementioned selected sites, examining their construction, scale and layout, and assessing their settings. Topographic and excavation data are combined to determine the characteristic features of these sanctuaries. Likewise examined are the arrangements of the sanctuaries' facilities within their urban contexts as well as the relationship between them and travel to port and city as revealed in inscriptions, ceramics, itineraries, and sanctuaries, as well as social and commercial interactions between sanctuaries and ports. The paper then gauges the maritime belief system's role as a vital interface between the Adriatic and the Roman world. In doing so, it draws conclusions on the relevance of the maritime belief system in fostering travel and movement in the Adriatic region in the Roman era.

Session 7I: Open Session

Disaster, Collapse, and Aftermaths

A Methodological Approach for Interpreting Disaster Response in Antiquity

Allison A. Marlyn, University of British Columbia

Earthquakes posed a significant hazard to the ancient inhabitants of the Mediterranean region, just as they do to people in the modern day. Scholarly interest in these ancient disasters has grown in recent years, and research has primarily focused on the occurrence of these events and their impact on human populations. However, little has been written on how past peoples have chosen to deal with the aftermath of a seismic event, limiting our ability to understand the material record at sites affected by earthquakes in antiquity. When people's responses are discussed, it is often from an inductive perspective focused on a single category of evidence, which fails to consider the multiplicity of ways an earthquake can impact a population, from shelter destruction to food scarcity. I thus put forth a deductive, disaster-oriented approach to studying people's reactions to the impact of a seismic event, built from modern sociological research concerning disaster response. This allows greater focus on the factors which shaped people's reactions, restoring agency to ancient populations.

I demonstrate the utility of this approach through its application to the interpretation of evidence from Kourion, a Roman site on the island of Cyprus which was abandoned after an earthquake in the late fourth century C.E., and then reoccupied in the early fifth century as a Christian settlement. Kourion serves as an excellent example of people's reactions to earthquakes due to the presence of clear evidence of a destructive seismic event, the most notable example being the Earthquake House. This study also takes a particular focus on the relationship between the earthquake and the adoption of Christianity at the site. This is reflected in the construction of new types of religious spaces after the earthquake, such as in the Episcopal Precinct, where an Episcopal complex replaced a Roman basilica.

Analyzing Mobility and Conflict During the Collapse of the Bronze Age in the Aegean and Balkans

Barry Molloy, University College Dublin

Presenting material from the later second millennium B.C.E. from the Balkans and Aegean, this paper uses new empirical analyses of human and artifact mobility to explore social aspects leading up to and following a major historical turning point—the collapse of Bronze Age systems. Taking account of the collapse of the Mycenaean palatial system in southern Greece ca. 1200 B.C.E., we take a wider regional perspective that brings together new excavations, site surveys, archaeometallurgy, ancient DNA, stable isotope, mortuary and bioarchaeological analyses conducted by our team. This is used to explore the complex issue of what we mean by collapse in the Aegean and southeast Europe.

The role of migrations and conflict in this key historical turning point have been debated for well over a century. From narratives of Dorian invasions to the raids of the Sea Peoples, conflict and interregional mobility have long been contentious issues in explanations of social upheavals around 1200 B.C.E. in the East Mediterranean. New data from the Balkans indicates that large-scale social changes were being experienced there at this same time, and so we argue that it is crucial to evaluate both regions together in order to better understand if, or how, mobility and conflict (social and violent) were factors shaping change. This also requires us to revisit how and why material culture traditions and social practices from the north and west of Greece came to play important roles there immediately before and after the collapse of palatial systems.

Studying human remains, we explore mobility and life experiences of the people living during this transitional period. Through survey and excavation, we explore the social world of newly discovered mega-forts in the Balkans. By studying transcultural metalwork that emerged throughout each of these regions, we also analyze the movement of practices and traditions across cultural boundaries.

The Palace of Nestor Falls Down; Then What?

Julie Hruby, Dartmouth College

Most scholars believe, based on the results of multiple archaeological surveys, that Messenia and Laconia were largely depopulated after the collapse of the palaces at the transition between the LH IIIB and IIIC periods. I argue that archaeologically, the effects of poverty and of depopulation appear comparable, and that while there may have been some decline in population levels, it cannot have been as stark as has previously been claimed.

While field surveys have not identified much Early Iron Age (hereafter EIA) material, several excavations have, and survey material can be misleading if we assume that the presence of identifiable pottery is necessary for the identification of people. Ancient ceramics production required a substantial investment of time, effort, and skill, and we have vastly underestimated the frequency with which other, more perishable materials, such as basketry and wood, were used for ancient vessels. What ceramics do come from the EIA are difficult to recognize; cooking pots were low-fired and soft, we lack a relevant chronologically based cooking

ware typology, most ceramic surfaces are degraded, and those wares that were painted mimic material from other periods. Even the shifts in the local flora and environmental patterns that appear at the end of the Bronze Age are as consistent with impoverishment as with depopulation.

Stated simply, if the Laconians invaded Messenia in the eighth and seventh centuries B.C.E. and turned the inhabitants into helots, there must have been someone to do the invading and there must have been people to have been made into helots. The combination of the highest possible birth rates with the estimated helot populations in later periods require that people have been present throughout the EIA. This is particularly true given the documentation of Messenian out-migration, however debatable its date.

Peopling Malthi: Estimating the Population of an LH I-II Settlement

Rebecca Worsham, Smith College, and Michael Lindblom, Uppsala University

The Middle to Late Bronze Age settlement of Malthi in Messenia is exceptional in that it is completely excavated within the limits of the fortification wall. Because it is clearly bounded and fully exposed, it is an ideal candidate for considering questions of household and population size, despite the challenges posed by these methodologies. Such work has rarely been attempted on sites of this period in mainland Greece, largely as a result of the poverty of settlement remains. While demographic data can be derived from mortuary evidence, the relatively low number of burials at Malthi—most investigated by Natan Valmin during the original excavation in the 1930s—means that the work of peopling the settlement must rely largely on architectural data.

Based on the overall extent of the settlement, a population of about 140 was suggested by the Minnesota Messenia Expedition (McDonald and Hope Simpson 1972, 136). This figure is, however, a static snapshot of the population within a dynamic, changing community. Drawing from new work carried out at Malthi from 2015 to 2017, we reevaluate this estimate, as well as Valmin's discussion of the functional division of the site. After defining the domestic space at the settlement, we use the total area of the houses to argue that Malthi is likely to have been more densely populated, possibly to a significant degree, as might reasonably be expected of a walled town. Particularly on the west side of the fortified area, the almost complete infilling of the space may be suggestive of a growing population, although patterns of abandonment over time should also be considered. In providing an estimate of the population at Malthi, this study establishes a point of comparison for contemporary settlements and allows us to approach an early Mycenaean site as a living community.

Session 7J: Open Session Subjects and Objects in Early Archaeology

Pompeii on the Potomac: Constantino Brumidi's Nineteenth-Century Roman-Style Frescos in the US Capitol

Elise A. Friedland, George Washington University

The convening of the AIA/SCS annual meeting in Washington, DC, provides an ideal opportunity to consider *Classica Americana*, the adoption and adaptation of Greek and Roman literary, philosophical, political, and artistic traditions in the United States. Specifically, this talk examines the role of artistic *Classica Americana* via one nineteenth-century example of public art at the center of our nation's capital city: the 1858 Pompeian-style mural cycle painted in the former US Naval Affairs Committee Room in the US Capitol Building. Here, the Italian-born artist turned American citizen, Constantino Brumidi, in one of his earliest commissions for the Engineer of the Capitol, Montgomery Meigs, surrounded members of the Naval Affairs Committee with nine blue panels, at the center of which appeared Pompeian-style floating maidens, holding contemporary attributes related to the sea and seafaring. On the ceiling, seven Graeco-Roman aquatic deities and a female personification of America oversee the floating maidens (and committee members) below. My new iconographic and archival research demonstrates that the patron, Meigs, was interested specifically in Pompeian style murals and that the artist, Brumidi, delivered by adopting and adapting contemporaneously discovered Roman wall paintings, accessed through a German tour-de-force of color lithography: Wilhelm Zahn's landmark 1829 publication, *Die schönsten Ornamente und merkwürdigsten Gemälde aus Pompeji, Herculanium und Stabiae*, Vol. 1, which I can now demonstrate was available to Brumidi at the Library of Congress. This paper documents this mode of transmission and Meigs's and Brumidi's goals in their purposive and learned adoption and adaptation of Roman artistic heritage. It underscores the role of books and libraries in the dissemination of classical art and architecture and the importance of the Library of Congress to artists and patrons in the mid-nineteenth century. Finally, it highlights the use of public, Classicizing art to shape the narrative of early American history.

Greeks Bearing Archaeological Gifts: The Marathon Stone, Lewisohn Stadium, and the Influence of the Classical Art and Architecture at City College in the Early Twentieth Century

Elizabeth Macaulay-Lewis, The Graduate Center, The City University of New York, and Matthew Reilly, City College, The City University of New York

Over the years, New York City has received archaeological objects as gifts. The best known example is that of Cleopatra's Needle in Central Park, which arrived in 1881. The obelisk, given by the Egyptian government to New York was intended to curry favor with the United States, one of Egypt's new trading partners, and to secure more American financial support for Egypt. A column from Jerash, Jordan, was also given to the City of New York by the late King Hussein as part of the

Jordan Pavilion of the 1964–1965 World’s Fair. Along with the pavilion, the gift of the column was intended to strengthen ties between Jordan and the United States. Less well known than these examples is a fourth-century B.C.E. Greek funerary stele, now on display in the Metropolitan Museum of Art. Dr. John Finley, the third president of City College and a classicist, saw the stele when he was walking in Greece and asked the Greek Government to give the stele to the college. With much fanfare, the stele, incorrectly named the Marathon Stone by Finley, was dedicated and proudly displayed at City College. This paper explores the context around the gift by drawing on contemporary newspaper reports, Finley’s erroneous association of the stele with the battle of Marathon, and the gifting of an archaeological object as a means for promoting ties between City College and Greece. The paper then examines the context for the display of the stele: the Lewisohn Stadium, whose design was inspired by Roman amphitheaters and ancient theaters. Finally, the paper argues that the display of the stele and erection of Lewisohn stadium—in other words, classical art and architecture—embodied Finley’s aspirations for City College, nicknamed the Harvard of the Proletariat, to rival Columbia University and New York University.

Excavating Armageddon: Chicago’s Quest to Uncover Biblical Megiddo

Eric H. Cline, George Washington University

The numerous publications produced by the Chicago excavators who dug at Megiddo from 1925–1939 are still used, and debated, by archaeologists working in the region today. However, these provide only a small window into the daily activities of the team members and the stories behind their discoveries. Fortunately, they also left behind a treasure trove of other writings—more than three decades worth of letters, cablegrams, cards, and notes exchanged by the participants, as well as their diaries, that are now in the archives of the Oriental Institute, the Israel Antiquities Authority, and the Rockefeller Foundation, as well as in the hands of their descendants and other family members. Digging through these materials provides us with a glimpse behind the scenes, including intrigues, infighting, romance, and dogged perseverance over the years, before the digging ended abruptly after the 1939 season. Their story frequently reads more like the script for a daytime soap opera, for the improbable cast of characters included a field director who was one of the best excavators in the Middle East but who couldn’t manage a team of diggers; his successor who had no college degree and no formal training in archaeology; a surveyor who sued for wrongful termination, but who may have also been spying for the Haganah while at the site; a staff member who was fined for smuggling antiquities but went on to a successful academic career nevertheless; and a high school dropout without a degree in archaeology and a geology student initially without an undergraduate degree, who together published as much as the three field directors combined, including co-authoring *Megiddo I*, the final publication documenting the first ten seasons at the site. They also nearly ended the excavations just one week after they began; paid rent for the excavated land to the wrong people for the first three years; and were the first, or among the first, to use a Munsell color chart and balloon photography on an excavation in the Near East. That story can now be told.

Engaged Scholarship: The Liberal Education of Harriet Boyd, Survival and Success in Crossing the Gender Divide in Early Aegean Archaeology

Susan Heuck Allen, Brown University

In the nineteenth century, women could only engage in field archaeology through marriage, as did Sophia Schliemann. For singles, breaking into fieldwork seemed impossible. At foreign schools of archaeology in Athens, while men participated in excavation, women conducted library research. It was not until women left the library, learned modern languages, and proved themselves capable of hard work through engaged scholarship that they earned the respect of male peers and entered the excavation arena. Their role model was Harriet Boyd. In this essay, I discuss the Boyd's trajectory from a scholar drawn to classical antiquity, to a humanitarian invested and embedded in collaborative wartime interactions with Greeks, to an engaged pioneer excavator who set a course for her colleagues and generations of women who followed her. I draw on unpublished diaries and correspondence, autobiographies, essays, and journalistic accounts housed in the Harriet Boyd Hawes Papers, Smith College Archives.

Boyd was aided by an iron will forged in childhood, but her archaeological success depended her experience as a nurse in the Greco-Turkish War of 1897. Her acquisition of Modern Greek enabled her to communicate directly with Greek royalty and peasantry alike. Her acquisition of important social and political contacts impacted her ability to gain excavation permits; her immersion and engagement led to her empathy with contemporary Greeks; opening hospitals demonstrated her ability to take charge and lead men and women in difficult circumstances; her forging of female partnerships provided support in a hostile male environment and taught her the necessity of collegiality and teamwork; her acquisition and practice of observation and communication skills helped her express and promote her ideas in the US and Europe. After navigating the gendered hierarchy of relief work, Boyd blazed a trail for women colleagues through a minefield of bias while acting within acceptable gender constraints.

Preserving Wildflowers and Exhibiting Diplomacy: Writing A Cultural History of Ancient Greece at the Smithsonian Institution

Alexander Nagel, Smithsonian Institution, National Museum of Natural History

When the "Classical Bouquet," a volume of original drawings of ancient Greek monuments and pressed wildflowers picked up on sites such as Athens, Corinth, and Sparta, entered the collections of the young Smithsonian Institution in Washington, D.C., in 1857, it already represented a powerful testimony of the role of the legacy of ancient Greece in modern diplomacy. Presented by Elisavet Contaxaki (ca. 1818–1879) from Athens through the U.S. consulate in Constantinople and the State Department, the volume went on display in the first National Museum and became a treasured item in the Smithsonian's Secretary reception room, before it was deposited in the Institution's Rare Book division in 1932. This presentation will contextualize the "Classical Bouquet" in the framework of ongoing research on a multi-authored volume on a cultural history of ancient Greece in the Smithsonian Institution. Which individuals connected the worlds of Washington, D.C.,

and Athens since the nineteenth century, and why? What role did ancient Greek materials play in diplomatic exchange and exhibition cultures between the two capitals? What do we know about the provenance of the materials such as sculptures and vases in the collection? Highlighting both archaeology and the development of Greek-American diplomacy and scientific exchange since the middle of the nineteenth to the current day, this presentation will be the first to introduce new research in archives and collections, and provide new information on individuals such as Elisavet Contaxaki, John Koumaris (1879–1970), Richard Howland (1910–2006) and Lawrence Angel (1915–1986), who worked actively on promoting Greek anthropology, archaeology, and research in Athens and America's capital.

Tanagra Mania and Art: Fashioning Modernity via Ancient Greek Female Imagery

Beth Cohen, New York Society, AIA

Illicit excavations of ancient tombs near Tanagra, Greece, in and around the 1870s, unearthed hundreds of brightly painted Hellenistic terracotta figurines, largely representing fashionably dressed women. Considered genre depictions, these seemingly informal artworks were avidly acquired by museums and collectors, and also forged. As this paper explores, Tanagra mania also provided artists with a fresh source of ancient Greek female imagery. For example, Tanagra figurines in the private Ionides Collection inspired American expatriate James Abbott McNeill Whistler, usually associated with the influence of Japanese art, to paint classically draped women (e.g., *Woman with Fan*, ca. 1870s, Maier Museum of Art, Lynchburg, VA). Another prominent display at the Paris World's Fair of 1878 reinforced the mania. The French Academician Jean-Léon Gérôme personified the archaeological site itself in a (once colored) marble statue showing a nude woman holding an invented hoop-dancer figurine (Tanagra, 1890, Musée d'Orsay, Paris), and he envisioned a female artisan coloring figurines sold in an ancient shop (*Sculpturae Vitam insufflat Pictura*, 1893, Art Gallery of Ontario, Toronto). By the early twentieth century, Tanagra figurines counted among the Classical sources that inspired costumes and dance movements of the Paris-based Ballets Russes. The *New York Times* proclaimed in 1912 that Parisian Spring fashions "will Adopt the Flowing Draperies of Tanagra Statuettes." In her Manhattan beauty salon, Helena Rubenstein displayed Tanagra-influenced terracotta statuettes depicting *The Four Seasons* (ca. 1912, New York Historical Society) by Elie Nadelman, a Polish émigré who had been prominent in the Parisian avant-garde. Finally, eloquently underscoring the Tanagra's trendy cosmopolitan artistic role, American Impressionist Childe Hassam, in *Tanagra* (*The Builders*, New York; 1918, Smithsonian American Art Museum, Washington, D.C.), showed a fashionable blonde woman admiring a Tanagra figurine while standing before an Asian screen as a skeletal skyscraper rises outside her window.

Session 7K: Workshop

Imagining Islands, Meditating on Mainlands

Sponsored by AHRC, the University of Cambridge, and the A. G. Leventis Foundation

Moderators: *Anastasia Christofilopoulou*, University of Cambridge, and *Naoise Mac Sweeney*, University of Leicester

Workshop Overview Statement

This workshop will adopt a forum format to explore the construction of island identities in relation to mainland identities in the Iron Age Mediterranean. This topic is the focus of a major new project based at the Fitzwilliam Museum, Cambridge, UK. The project involves the archaeological investigation of island identities on Cyprus, Crete, and Sardinia during the period ca. 1100–600 B.C.E., and will culminate in a large-scale exhibition in September 2021. The aim of this workshop session is to kick-start the project with a radical and open exchange of ideas, adopting a comparative and interdisciplinary perspective to develop new approaches to the topic. It will begin with the presentation of a case study—that of Cyprus and Cilicia. Subsequent speakers will respond to this, and workshop participants will be encouraged to use the example case as a jumping off point to explore other instances and broader implications. The workshop will be moderated by project's P.I. and Lead Curator.

Panelists: *Jo Quinn*, University of Oxford, *Marian Feldman*, Johns Hopkins University, *Evi Margaritis*, The Cyprus Institute, *Jana Mokrisova*, Birkbeck College, University of London, *Louise Hitchcock*, The University of Melbourne, and *Jeffrey P. Emanuel*, Harvard University

Session 7L: Colloquium

Methods and Approaches in Numismatics

Organizer: *Martin Beckmann*, McMaster University

Colloquium Overview Statement

This colloquium highlights innovative methodological approaches to the study of Greek, Roman, and Late Antique coins and the new knowledge that can be obtained through the development of new methodologies, the innovative application of old ones, or a critical approach to established practices. Numismatic methodology is famously varied, spanning a range from technical studies applicable only to coinage such as die analysis or hoard studies, to methods commonly employed outside the field, such as iconographic analysis. The first paper in the session highlights the benefits that can be obtained from a critical approach to coin hoard studies. The authors argue that a coin hoard found in controlled excavation at Eleusis and traditionally dated to 520–500 B.C.E. in fact belongs to the years after the Persian destruction of 480/479; this has important chronological implications

for the dating of the Telesteria at Eleusis. The second paper examines the methodology employed by scholars using Hellenistic coin portraits to identify three-dimensional sculptures of rulers. The author argues that this methodology should be refined by focusing on the recovery of the characteristics of the presumed prototype, rather than on assembling a catalog of general characteristics. In the third paper, "Methodological Problems with Imperial Small Aes Coinage," the author shows how by combining established methodologies (die analysis, metrology, and iconography) in new ways it is possible to solve old numismatic problems; here the great difficulty of differentiating between denominations in the small bronze coinage of Sabina. In the fourth paper, "A New Approach to Understanding the Monetary Policy of the Roman Imperial Period," the author proposes a new methodology for the study of ancient coin production, based on a relative frequency calculation adjusted to account for varying durations of production. When integrated with iconographic and metallurgical approaches, this methodology can shed light on the reasons behind changes in production volume. The final paper, "The FLAME Project," presents interim results and demonstrates two newly built databases created to facilitate the study of the role of coin circulation in the Late Antique and Early Medieval economy.

Discussant: *William E. Metcalf*, Washington, D.C., AIA Society

The FLAME Project: Mapping Coin Production and Circulation for the Transition from Late Antiquity to the Early Middle Ages

Alan M. Stahl, Princeton University, and *Lee Mordechai*, National Socio-Environmental Synthesis Center

The FLAME (Framing the Late Antique and Early Medieval Economy) project is an ongoing collaborative effort of a dozen scholars worldwide to track the production and circulation of coinage in western Eurasia from 325 to 750 C.E. in order to investigate the transition from ancient economies to those of the Middle Ages in Europe, North Africa, and Western and Central Asia. The core of the project is a database with two distinct data sets. The first data set records all of the coinage issues throughout the regions and periods under study and presents the data either as maps or data that can be customized by time spans and regions and can be downloaded. This minting phase of the project is online at <http://coinage.princeton.edu>, and live examples of the search protocol will be part of the AIA presentation. The second database includes the records of hundreds of thousands of finds of coins of the period throughout the regions under study; it uses input from published reports and the transfer of data from ongoing surveys in Great Britain and Israel as well as the Coin Hoards of the Roman Empire database. The presentation at the 2020 Annual Meeting of the AIA will include a public introduction to the newly developed query, report, and mapping capabilities of the circulation phase of the project.

Attempting to Understand Roman Imperial Monetary Policy

Benjamin Hellings, Yale University Art Gallery

One of the great debates in numismatics has been concerned with the methodology and implications of calculating the total quantity of produced coins. Without mint or mining records, the study of the coins themselves has provided the best source for any calculations. Traditionally, these calculation estimates have come through die studies or, more recently, though analysis of the surviving number of coins in absolute terms. Each of these methods has a different set of data, problems, and limitations. Using coin finds, this paper seeks to present a different method—a relative frequency calculation that also considers the duration of production periods. This alternative method provides a glimpse into the operation of the Imperial mint while also offering the potential to assess reasons for changes in coin production quantities. Since coins were issued in fluctuating quantities, it is imperative to consider the relative frequency of different emissions in terms of absolute numbers but also to compare this to adjusted per day calculations to account for different production lengths. When these fluctuated frequencies are considered together with iconographic changes and metallurgical data, we can further our understanding why production rates changed as well as the nature of a particular reform while also questioning its reason.

Methodological Problems with Imperial Small Aes Coinage

Fae Amiro, McMaster University

The radiate crown on the emperor's portrait on dupondii to differentiate them from the as was eliminated in 128 C.E., making the distinction between these denominations difficult for modern scholars. In antiquity, these two denominations would have been differentiated by a difference in color, stemming from their different alloys, which has largely been lost today due to discoloration. These denominations also had different ideal diameters and weights, but they were very close. Due to the different levels of wear between the various specimens, it is very difficult to tell if a specific artifact is a dupondius or an as due to its weight or dimensions. As a result, these dupondii and asses have until now been left undifferentiated. This has left numismatists with an incomplete understanding of the iconography and metrology of these coins.

To facilitate the differentiation of these coins, I used a combination of die study and metrology. I assembled a database of Sabina's dupondii and asses, all of which were minted post-128 and conducted a die study of these coins. To establish the weight standard for Sabina's dupondii and asses, I used Hadrian's pre-128 dupondii and asses, those visually differentiated by the radiate crown. I graphed the weights of these coins on violin plots, calculated the median weights and then graphed the coins' weights by obverse and reverse type. The results demonstrate that there were some obverse and reverse types which were used exclusively for one of the two denominations. These methods can be applied to other coins whose denominations are unclear to gain a more complete understanding of the typology and production of Roman imperial coinage.

Identification of Hellenistic Ruler Portraits: Towards a Better Understanding of Numismatic Evidence

Laure Marest, Museum of Fine Arts, Boston

Numismatic evidence is regularly marshaled to support various identifications of Hellenistic ruler portraits. The method is well known and seemingly straightforward: a numismatic portrait, identified as a specific ruler through inscribed legends or numismatic tools such as die studies, is used as the basis for empirical comparison with unidentified portraits in the round. However, the approach is in need of methodological introspection. It has produced uneven results in practice, because the numismatic evidence is not understood on its own merits. For instance, there is little acknowledgement of the physiognomic differences in numismatic portraits of the same ruler, not only among different types but also within the same type. Too many proponents of this identification method are guilty of picking and choosing whichever numismatic representation suits them best. This paper evaluates the use of coins as comparanda to identify Hellenistic royal portraits and proposes guidelines based on a better understanding of numismatic practices. It is argued that the selection of comparative numismatic material for the purpose of identification should be guided by the principle of closeness to the prototype as opposed to consistency across issues or dies.

Coin Hoard Studies, IGCH 5, and the Chronology of the Eleusian Telesteria

Kenneth A. Sheedy, Australian Centre for Ancient Numismatic Studies, Macquarie University, and G. Davis, Australian Centre for Ancient Numismatic Studies, Macquarie University

This paper reconsiders the methodology of coin hoard studies and the use of material within the “Perserschutt” (both at Eleusis and the Athenian Acropolis) as a critical peg for Athenian chronology. In particular, we examine the interpretation of hoard evidence as part of a broader approach to resolving chronological problems associated with our understanding of the late archaic period in Attica. We highlight the apparent isolation of numismatic research within current attempts to revise the chronology of Attic buildings and monuments once dated to the years before the democracy. The small hoard of archaic Athenian and Eretrian coins found at Eleusis in 1883 (IGCH 5) has been largely overlooked, despite the details of its findspot provided by the excavator, Demetrios Philios. This neglect can be attributed to the loss of the hoard until its rediscovery in 1982 (in the Athens Numismatic Museum), and to the curious fact that Philios himself never mentioned the hoard in any of his reports. Today it is conventionally dated to the decades 520–500 B.C.E. on the basis of the coins themselves and the evidence of the findspot was carefully recorded by Ulrich Köhler after discussions with Philios. In this paper we seek to demonstrate that that this apparently unique example of an “archaic” hoard found during the controlled circumstances of excavation belongs to the years after the destruction of Eleusis by the Persians in 480/479 B.C.E. Furthermore, our examination of the stratum in which the coins were found casts doubt on the revised chronology of the late archaic and early classical Telesteria proposed by T. L. Shear from an interpretation of the epigraphic evidence.

Session 8A: Joint AIA/SCS Colloquium (Inter-) Regional Networks in Hellenistic Eurasia

Organizer: *Talia Prussin*, University of California, Berkeley, and *Jeremy Simmons*, Columbia University

Colloquium Overview Statement

The Hellenistic world, the long neglected in-between flanked by Classical Greece and Rome, is beginning to see a renaissance of scholarly interest. Hellenistic history has finally moved away from the study of whole kingdoms through top-down Hellenization toward nuanced regional histories and histories of inter-regional connectivity. New tools in the ancient historian's toolkit, such as digital mapping and network analysis, can elucidate connections previously invisible in the traditional narrative of the Hellenistic period.

This panel has two principal aims: (1) to explore the mechanisms that promoted connectivity both regionally and across vast distances within this broader Eurasian "Hellenistic" and (2) to address the burgeoning field of research on the less-studied portions of the Hellenistic world. Accordingly, the papers presented in this panel will look at the role of various types of networks, whether commercial, institutional, or spatial, in this broader "Hellenistic." Individual papers go beyond the traditional chronologies and geographies of the Hellenistic period, evaluating regional case studies from Asia Minor, Mesopotamia, and northwestern India between the fourth century B.C.E. and second century C.E. Each paper addresses these Hellenistic phenomena from different perspectives, from trade networks within a single Hellenistic polis to commercial links spanning thousands of kilometers.

Panelist #1 ("Transitional Spaces and Connective Tissues: Harbor Dynamics in Hellenistic Asia Minor") examines the regional connections between Hellenistic *poleis* in Asia Minor and their associated ports. The relationship between urban centers and harbor infrastructure is key to understanding the intersection of inter-regional maritime and local urban networks. The spatial integration of harbor-urban matrices provides a diachronic view of networks that facilitated movement of people and goods from the Mediterranean shores to inland areas.

Panelist #2 ("Networks and Networking in the Economy of Seleucid Uruk") focuses on the effect of the deployment of Hellenicity on Seleucid Babylonian economic networks. Using Uruk as a case study, this paper examines how ethnic self-coding mediated access to networks associated with the royal (Greek-coded) or temple (Babylonian-coded) economies. This discussion illuminates the development of Babylonian cities' economies, historically dominated by the temples, under the Seleucids.

Panelist #3 ("After Polity: Hellenistic Networks in Northwestern India (200 B.C.E. – 200 C.E.)") investigates the maintenance and extension of these Hellenistic networks after the demise of Hellenistic polity in Bactria and northwestern India. In the wake of political instability in these regions, Greek-speaking individuals from Central Asia and the Punjab turn to local institutions like Buddhist monasteries for support. The establishment of these relationships in turn served as

foundations for wider commercial networks of Greek-speaking peoples across the Indian Ocean.

Finally, Panelist #4 (“Mediterranean Pathways: GIS, Network Analysis, and the Ancient World”) argues the merits of using network analysis and other technological tools to better articulate geospatial networks throughout the Hellenistic world. A wide-array of existing tools are available to scholars to conduct innovative research and further complicate our existing understanding of the Hellenistic world. This paper seeks to make these digital tools accessible to a broader audience of archaeologists and historians without extensive technical training and programming knowledge.

The panel will have a discussion at the end of the session, led by a single discussant. Our respondent, a leading expert on the material culture of the Near Eastern world, will contextualize the papers from a Near Eastern perspective. Such a perspective is especially important when addressing the Hellenistic period since Near Eastern precedents and institutions have traditionally been underrepresented in historical treatments of the Hellenistic that focus on its Greco-Macedonian ruling class. The panel hopes to spark a lively discussion to further expand our understanding of the “Hellenistic” throughout Eurasia and the interconnected webs of human activity that made it possible on both a local and global scale.

Discussant: *Marian Feldman*, Johns Hopkins University

Transitional Spaces and Connective Tissues: Harbor Dynamics in Hellenistic Asia Minor

Lana Radloff, Bishop’s University

A *polis* with an urban center situated on the coast usually had a harbor (*limen* or *epineion*), often including an *emporion*, a special market for foreign trade that operated alongside the agora in the urban interior. Separated from the land- and seascape, harbors were not only integral to commerce and transportation, but also functioned as connective tissues between the larger communication networks of the surrounding sea and the terrestrial environment of the interior. Thus, urban and maritime infrastructure was built to facilitate and/or to restrict the movement of seafaring people from the sea to different urban zones. Using case studies, such as Kos, Miletos, Knidos, Elaia, and Rhodes, this paper examines patterns of spatial access between open sea, harbor, and urban interior in Hellenistic Asia Minor. A holistic approach is applied to the maritime environment to emphasize the interaction of land, coast, islands, and sea, integrating the totality of maritime “scapes” into the internal dynamics of coastal settlements, while maritime access is modeled with space-syntax and axial integration analysis. Together, space-syntax and axial integration incorporate spaces and streets—key components for modeling movement on land (streets, agora, residential districts) and sea (coast, sea, harbor) that embody the methods and aims of connective relationships within settlements. Spatial modeling highlights trends associated with different harbor types and settlement topography, such as those with single, multifunctional harbors and others with multiple, functionally specific bays for commercial, military,

and religious purposes, which guided movement within cities and integrated and isolated different maritime and terrestrial zones. Viewshed analysis is also used to incorporate the natural topography and connections between maritime and terrestrial “spaces” not physically adjacent to one another.

Examination of the harbor-urban matrices of coastal settlements allow large-scale, diachronic insights into the networks that facilitated movement from the Mediterranean shores to inland areas. These settlement patterns facilitate the identification of overarching strategies of maritime management across the Mediterranean and aid in recognizing outliers. In turn, the data produced will help create explanatory models of change. An innovative approach such as this introduces new ways to think about maritime space that serves as a framework to evaluate local, regional, and interregional networks within Asia Minor, the Aegean, and broader Mediterranean world. It highlights the role of the maritime environment in negotiating cross-cultural interaction and integrates seafarers, maritime communities, and patterns of movement between city and sea into discussions of the topographical and geographical development of maritime space in the creation of urban environments and community identities.

Networks and Networking in the Economy of Seleucid Uruk

Talia Prussin, University of California, Berkeley

Hellenistic Babylonia, arguably the heartland of the Seleucid empire, has produced a wealth of data about local economic actors (whether traders or priestly elites) because of the hardness of cuneiform tablets. In this paper, I will focus on Uruk, a Mesopotamian city southeast of Babylon on the Euphrates, as a case study of Seleucid Babylonia. Using the corpus of Hellenistic economic texts from this city, I reconstruct networks of economic actors within the city, which I will use as a model for economic activity

In this paper, I specifically wish to study the role of Hellenicity in the economy of Babylonian cities. Much like in Ptolemaic Egypt, Seleucid Babylonia has a widespread phenomenon of double names. The same individual has both a Greek and a local name, often of Akkadian origin. Unfortunately, we can usually detect this phenomenon only when a document explicitly states that an individual was also known by a second name, so this phenomenon may actually have been more prevalent than we know. While it is impossible for us to know now how these individuals viewed their own ethnic identities, it is possible for me to evaluate whether this deliberate ethnic duality changed the shape of Urukians' economic networks.

Conscious ethnic self-coding as Greek or non-Greek may have allowed economic actors to gain access to different markets within the city. This intentional deployment of ethnicity may have facilitated access to the royal (Greek-identified) versus temple (local-identified) economies. This approaches one of the largest issues in the study of first-millennium Babylonia: to what extent did the Babylonian temples continue to shape the economy of Babylonian cities after the fall of the Neo-Babylonian empire?

This question also profoundly affects the role of Hellenistic Babylonia in Seleucid studies. The enormity and importance of the data from this region has

been diminished by concerns that Babylonia and its cities were not typical of the Hellenistic world or the Seleucid empire. I will offer a few suggestions based on my findings about the working relationship between the Seleucid kings and the Babylonian temples and how individual Urukians engaged with the royal and sacred economies. By better defining and explicating these relationships, I hope to dismantle the perception of Babylonian urban economies as exceptional in hopes that Babylonian evidence may become more accepted into mainstream Seleucid studies.

After Polity: Hellenistic Networks in Northwestern India (200 B.C.E. – 200 C.E.)

Jeremy A. Simmons, Columbia University

Can Hellenistic networks exist without Hellenistic polities? The study of Hellenistic Central Asia and northwestern India, when not focused on broader questions of cultural interaction, has largely been defined by the scholarly pursuit to reconstruct a chronology of political history from limited lines of textual and archaeological evidence. As a result, diplomatic ties between Hellenistic states and those further south in the subcontinent have received extensive scholarly attention because of numerous surviving testimonies, whether it be fragments of Megasthenes, Ashokan Edicts, and the Heliodorus Pillar. However, this narrative of political history overshadows indications that other types of Hellenistic networks existed and even persisted after the decline of Hellenistic political autonomy in the second and first centuries B.C.E.

This paper explores the evolution of Hellenistic networks in northwestern India after Hellenistic political control over these regions, from those sustained by Hellenistic peoples of Central Asia and the Punjab to a much larger global phenomenon. In particular, it demonstrates how Greek-speaking peoples expanded and maintained networks in the subcontinent by participating in Indian institutions, which in turn laid the groundwork for a much larger “Hellenistic” network spanning the Indian Ocean.

One example of this phenomenon, which serves as the main focus of this paper, is the presence of Greek-speaking denizens of Central Asia and the Punjab at Buddhist monasteries in northern and western India. These monastic complexes served important financial roles as a result of donations from dedications. Importantly, many of these individuals self-identify with the Prakrit ethnonym *yona* or *yavana* (a term borrowed from earlier Semitic and Persian terms for “Ionian”), and many Buddhist sites bear accompanying sculptural representations of these foreign dedicators. Such dedications, immortalized by inscription, allowed for Central Asian Greeks to establish links over vast distances and opt in for particular resources, infrastructure, and an institutional framework provided by Buddhist monasteries that developed along the primary land routes of the subcontinent.

These Hellenistic networks receive renewed activity at the start of the Common Era, when new Greek-speaking peoples frequent coastal Sind, Saurashtra, and Malabar in the course of ancient Indian Ocean trade. Buddhist monasteries continue to benefit from the patronage of *yavanas*, now hailing from larger corporate groups of merchants. It begets the tantalizing possibility that Greek-speakers from the Mediterranean world, hailing from the Egypt or the Syrian Steppe, connected

with the well-established heirs of a Far Eastern Hellenistic to form global networks of commerce. The groundwork laid by practitioners of local networks thus allowed for the development of a far-wider Hellenistic commercial network, linking Egypt, the Near East, and northwestern India. The maintenance of these Hellenistic networks is thus paralleled by something much more ephemeral, wherein human bodies serve as vehicles for knowledge and artistic expression, whether it be Greek astrologers in Indian royal courts, the presence of Hellenistic artistic motifs at Buddhist sites, or creative uses of Greek script on Indian coinage.

By looking beyond the political history of eastern Hellenistic states, we can trace the presence of Hellenistic networks in northwestern India well beyond an age of polity—it becomes one of several global networks, maintained by human agents moving hundreds or even thousands of kilometers, propelled by the pursuit of profit, practice of faith, and need for institutional support.

Mediterranean Pathways: GIS, Network Analysis, and the Ancient World

Ryan M. Horne, University of Pittsburgh

We live in a world that is increasingly defined and shaped by networks. Electronic networks, once envisioned to be open highways of communication, are increasingly the site of largely isolated homogenous networks of information shaped by ideology. Some scholars have considered these groups, despite their embrace of technical innovation and involvement with social uprisings like the Arab Spring, as another component of a complex web of social, political and geospatial networks dominated by powerful nation-states. These networks are often studied as a proxy of larger social phenomena, or used to quantify the movement of people and material through complex geospatial systems.

Such an approach is not restricted to studies of the modern era. Some scholars of the premodern era recognize and envision complex societies as geospatial networks of relationships between different entities places, and use new digital tools to study the ancient Mediterranean as a connected system of relationships. However, perhaps due to earlier technological limitations, such work has not been widely adopted or used in the ancient studies community broadly. Even less work has been done to integrate networks and geospatial studies, or to expand this inquiry beyond the traditional confines of Greece and Rome. Additionally, although numismatic studies have embraced linked open data (LOD) resources, the application of network analysis to the field, especially combined with geospatial studies, is in its infancy.

Through the use of new software, digital techniques, and resources, this paper demonstrates how research projects can transform simple digital gazetteers and data collections into a larger examination of networks and connectivity. By modeling Hellenistic kingdoms as networked systems, this paper builds upon the pioneering work of Monica Smith and Stanford's ORBIS project to show how coin production and distribution, combined with careful textual analysis, can help to elucidate the social and political networks of the Hellenistic world. Building upon the NEH-funded Aeolian Alexanders project, this paper will discuss how network analysis and geospatial studies can dramatically change how die studies and other numismatic inquiry both conduct and present their findings. In

addition, this paper will illustrate how existing resources, like roads data from UNC-Chapel Hill's Ancient World Mapping Center and Harvard's Digital Atlas of Roman and Medieval Civilizations (DARMC), travel costs from ORBIS, coin data from the American Numismatic Society's NOMISMA project, and the Pleiades gazetteer can be leveraged by non-specialists to model the flow of materials and communications between urban centers in the Hellenistic east. This paper uses least-cost pathing tools, combined with data on ancient roads and navigable rivers, to abstractly model both the flow of coins from mints to hoards and to examine networks of interaction between different communities and Hellenistic kingdoms. The result is a visualized abstraction of complex networks in geographic space that offers not only a window into the possible connections between different minting authorities, but also offers and a new perspective on the structures and reach of Hellenistic imperial power that challenges standard cartographic depictions of ancient societies.

It must be stressed that this paper is not a step-by-step tutorial on these technologies or a complete analytical analysis of the Hellenistic world. What it offers is a high-level view of a digital methodology that enables a non-technical specialist to efficiently construct geospatial network depictions of complex human systems for further research, and how those technologies can be applied to numismatic and historical studies.

Session 8B: Open Session

Organic Matters: Plants, Gardens and Agriculture

Reconstructing Agricultural Systems at Gabii during the Iron Age and Archaic Period: Economic Strategies and Environmental Indicators

Fanny Gaveriaux, La Sapienza University of Rome, *Laura Motta*, University of Michigan, *Mauro Brilli*, CNR Rome, and *Laura Sadori*, La Sapienza University of Rome

The urbanization processes in central Italy have been associated with changes in agricultural systems and intensification of production by previous scholarship. However, the specific character of these changes has been difficult to explore thus far due to the lack of direct data. In this paper we suggest a different approach which uses, as a case study, biochemical analysis of archaeobotanical remains of wood and staple crops from the Latin city of Gabii. Through carbon and nitrogen stable isotope analysis of ancient cereals and wood remains, it is indeed possible to explore past farming strategies and environmental variability since carbon is a proxy of water availability and nitrogen is an indicator of soil fertility.

Preliminary results on emmer and barley, retrieved from excavated contexts dated from the eighth to the sixth century B.C.E., offer insights on cultivation strategies. The comparison of these data with those obtained on oak wood allows for the detection of rain patterns and environmental trends. The limitations in applying this innovative methodology are discussed as well.

Planting and Performance in the Roman Garden: Results of the Casa della Regina Carolina Project, 2018–2019

Kathryn Gleason, Cornell University, Caitlín E. Barrett, Cornell University, Annalisa Marzano, University of Reading, and Kaja Tally-Schumacher, Cornell University

This paper presents preliminary results from the first two field seasons of the Casa della Regina Carolina (CRC) Project, at house VIII.3.14 in Pompeii, an elite dwelling originally excavated in the eighteenth and nineteenth centuries. The site of Pompeii is central to any account of Roman households and daily life, but much of its archaeological record results from early excavations that predate modern field methods. The CRC Project, codirected by researchers from Cornell and Reading Universities, employs new detection and recording techniques while also salvaging and synthesizing information from the early excavations.

The 2018–2019 seasons clarified the basic phasing of the house through stratigraphic excavation of the ancient garden, the focus of this paper. Early excavators exposed the 79 C.E. architecture but did not seek to dig into the garden soil itself. However, the Parco Archeologico di Pompei has granted us permission to excavate the garden and to conduct GPR survey and LiDAR recording of topography and standing architecture. The original domestic assemblage from the house interior is now largely lost, and in its absence, the garden provides our best opportunity to investigate some of the activities, practices, and performances associated with this household—from elite leisure activities (e.g., strolling, outdoor dining, viewing ornamental horticulture) to practical activities likely performed by enslaved laborers (e.g., garden maintenance and irrigation).

In 2018–2019, the CRC Project was able to reconstruct the basic design of the ancient garden through the layout of root cavities, planting pits, and flowerpots. This talk surveys these preliminary results and discusses their implications for social, economic, and religious performance. As this example shows, material culture provided both affordances and constraints for the behaviors, experiences, and social performances that were possible in Pompeian gardens.

In Vino Pecunia: A Revised Economic Model for an Ancient Roman Vineyard

Robert P. Stephan, University of Arizona, and Charles B. Hintz, New York University

In the middle of the first century C.E., the author and agriculturist Columella laid out a detailed economic model for the running of an ancient Roman vineyard. His goal was to instruct potential farmers or investors how to run a profitable vineyard for which the revenues would consistently outweigh the costs. In recent decades, scholars have revised Columella's model to address errors and omissions in his calculations, taking into account, for example, depreciation. These debates have started to provide a better understanding for the manner in which a vineyard would have operated and the underlying incentives for an investor to enter the business.

This project builds on these previous debates by investigating the return on investment for vineyard owners and investors through the lens of modern financial accounting. In order to better understand the internal structure of the viticulture

industry, this study combines archaeological evidence for farms in Italy, historical data from authors such as Columella and Varro, and comparative information from modern vineyards. In doing so, it establishes rough costs for engaging in the wine-making business—land, workers, seed, trellises, processing and storage facilities—and balances those expenditures with estimates for income generated from the sale of wine. The quantitative estimates in the model allow for the calculation of several modern measures of return on investment: annual accounting return, payback time, internal rate of return, and net present value. Results of these calculations indicate that investing in a vineyard would have likely produced a higher monetary return than olive or grain production; however, even viticulture returns fall far short of potential gains in other arenas such as money lending. In sum, this quantitative modeling allows us to better understand the motivations for investors in antiquity while also clarifying the organizational structure of ancient Roman agriculture.

Session 8C: Open Session

Cultures in Contact: Exchange, Continuity, and Transformation

The Sons of Commios: Fabricating Identity in Pre-Roman Britain

Mark Van Horn, University of Pennsylvania

During the second and first centuries B.C.E., Roman trade goods began penetrating northern Gaul, Belgica, and southern Britannia, evidenced by the archaeological appearance of early Roman amphorae (Cunliffe 2004; Williams 2005). These ceramics, together with Roman-style coinage of indigenous kings, have previously been used to “reconstruct” native dynasties for the one hundred years between the accounts of Caesar and the invasion of Claudius. These arguments advocate for a de facto, or even de jure, integration of Britannia into the Roman Empire through client kingship before the invasion of 43 C.E. (Creighton 2000; Richmond 1995). Here I examine these coins and their manufacturers not as dynasts who thoughtlessly copy Roman models as provincial subjects, but as shrewd political actors who construct their local authority through deliberately falsified genealogies, resulting in propaganda which was concurrently “native” and “Roman” (Aarts and Roymans 2009; Johnston 2017).

Verica fled to Roman Gaul seeking political asylum in 40 C.E. As an Atrebaten king of the first century C.E., Verica used numismatics to articulate his power, often emulating Roman typologies. Carefully crafted Latin phrases and portraits of gods or men signify a dramatic shift from previously established Celtic customs exhibiting abstract equestrian imagery. My conclusion that Verica is using his currency to assert a native lineage, fabricated wholesale and falsely connected to Commios (noted by Caesar as king of the Atrebates, *De Bello Gallico* 4.21.7), furthers previous work (Williams 2005). Parallel claims exist from Tincomarus and Epillus, other British kings also vying for the prestige of being *commii filii*. These falsified identities were created to capitalize on the political disunity and power vacuums following Caesar’s invasion of Gaul; they demonstrate both the longstanding political ties between Belgica and Britannia, and utilize the “Roman

cultural revolution” on the continent to assert local dominance in novel fashions (Woolf 1998).

“Natione Grecus”: The Greek Language in Roman Britain

Kelsey Koon, University of Alberta

Writing from Roman Britain in languages other than Latin is notable for its rarity. The number of non-Latin monumental inscriptions can almost be numbered on the fingers of one hand. Only eight examples of non-Latin writing appear in the whole corpus of monumental inscriptions from Roman Britain, themselves a testament to individual language choice and self-expression. However, if the use of the Greek language in the monumental inscriptions of Britain is rare, it is comparatively less so in the collections of portable personal objects. These would appear to have been imported by their owners rather than made in Britain itself, since their symbolism and text are classically Greek or eastern in origin.

The majority of Greek script seems to have been confined to jewelry, glass, and metal tableware, with the preponderance of the lattermost dating to the late Roman or early Christian period. Greek was either a marker of Eastern origin, or a sign of higher education, since those Greek-speakers who inscribed objects in Britain seem to have known Greek already rather than learning it in Britain. The epigraphic corpus does not preserve evidence of practice in writing Greek, as it does with Latin, and all examples of Greek found in purposeful inscriptions and in informal graffiti appear to have been intentionally made by those who already had familiarity with the language and script.

This paper addresses these examples of Greek writing in Roman Britain, as well as their place in the larger literate landscape of the province. Analyzing these artifacts and their respective contexts reveals how multiple languages interacted on the island and the range of choice that was available for written expression.

The Punic and Roman Coinage of Pantelleria: Early Strategies in Roman Overseas Imperialism

Eoin O’Donoghue, University of St. Andrews

This paper examines Roman imperialist policies in the aftermath of the conquest of the island of Pantelleria (Provincia di Trapani). Pantelleria is located approximately halfway between the southwest coast of Sicily and Cape Bon in Tunisia; its rich archaeological record stretches back to the Neolithic. The island was later inhabited by Punic settlers from the fifth century B.C.E. Subsequently, Punic Pantelleria (*YRNM in Neo-Punic) was conquered by the Romans in 217 B.C.E. during the Second Punic War and then became Roman Cossura. The archaeological evidence records how the Romans adapted to the distinctive natural environment of Pantelleria as well as offering a window into Romano-Punic cultural interaction. It also provides an important example of the fluidity of Roman Imperialism in the Middle Republic. This paper focuses on one example of this process considering how the Roman administration appeased the Punic population, specifically

through examining changes to the coinage minted on the island from before and after the Roman conquest.

The pre-Roman coinage was minted by the local Punic administration as early as the late-fourth century B.C.E. It shows typical Punic imagery, a female head in profile on the obverse with a winged “Nike” figure bearing a laurel. The female figure has been interpreted as Isis, based on a *uraeus modius*, a necklace, and kluft worn on the head. Here I reject this interpretation in favor of suggesting the figure is a personification of the island itself. The reverse displays a laurel wreath and the Neo-Punic legend ‘YRNM. After 217 B.C.E., the Romans maintained the principal elements of the imagery, but replaced the Neo-Punic legend with the Latinized name, Cossura. From this I conclude that early Roman overseas administrative strategies should be considered separately, the case of Cossura suggests a conciliatory approach rather than aggressive suppression.

Glocalization and the Emergence of Regional Visual Koines within the Province of Hispania Baetica

Ruben Montoya González, University of Leicester

In recent years, the glocalization framework has—and is being—developed upon continuous responses starting from an emphasis on diversity, as opposed to initial homogeneity, within globalization. Although in Roman studies the term has generally been used to investigate how global transformations (i.e., material, symbolic or visual exchange) happened differently in discrete regions across the Roman Empire (Gardner 2013: 7), its application to archaeological studies is still overlooked, as stated in a recent discussion on interdisciplinary perspectives on the recent growing use of this theoretical framework (Barret et al. 2018, 11–32). Because of that, my PhD research focuses on a theoretical application of the term glocalization to villas and the display of décor in Hispania Baetica, a provincially interconnected territory at the edge of the Roman world, which iconographic evidence has traditionally been interpreted through iconographic comparisons with other North African or Italic evidence. In this paper, I investigate the extent to which it is possible to identify local and regional aspects within global, architectural and artistic practices. In order to achieve that, I first present my theoretical model of glocalization. I then demonstrate its application to Roman visual material culture through two case studies: from the selection of charioteer scenes, to the display of Priapus sculptural remains, I conclude by affirming the emergence and existence of different regional, visual koines within a seemingly globalized world.

The Visual Representations of Roman Imperial Women in Hispania

Rachel Meyers, Iowa State University

While the portrait statues of the Roman emperors in Hispania have been catalogued and studied, those of the female imperial family members have often been overlooked or addressed summarily. This paper brings together for the first time the portrait heads, statue bodies, and inscribed bases of the imperial women from Livia to Julia Domna from the three provinces of Hispania. The evidence

for portrait statues of imperial women in this area, unlike those of the emperors, does not follow the same patterns for their representation in Rome and other parts of the empire. For example, there is a relatively small number of representations of the Flavian dynasty, even though Vespasian's grant of *ius Latii* to all of Spain was responsible for far-reaching sociopolitical changes. The female members of the family are essentially absent from statue galleries. On the other hand, some imperial women are over-represented among the remains of portrait statues. The number of images of Agrippina II is exceeded only by those of Livia, an outcome not reflected in other provinces where Livia figures prominently in statuary displays from the reigns of Augustus through Claudius.

This paper considers not only the number and distribution of female imperial portraits but also the people or groups who erected them. The way in which an individual or town council portrays an imperial woman tells us about how they viewed the woman herself, the emperor, and even the imperial court more broadly. One outcome of this study is a more developed perception of the cultural identity of the Iberian provinces as we examine the local interactions with imperial authority through the visual representations of the ruler and his family. The statues, or their lack, also indicate attitudes towards the public display of the female body in particular areas of these provinces.

Private Practices: Religious Continuity Between Greek and Roman Sicily

Andrew Tharler, Duke University

Recent assessments of early Roman Sicily have emphasized a stronger impression of cultural continuity with the Greek past than previously assumed. While certain terracotta industries survived the Roman conquest in 211 B.C.E. and Greek inscriptions continued to be widely attested, the persistence of Greek religious practices has not been thoroughly examined. This paper addresses the continuity of ritual activity in Roman Sicily by examining the use of terracotta altars, sometimes called *arulae*. Specifically, I analyze unpublished *arulae* from the site of Morgantina. Hellenistic *arulae* are distinguished by their open cylindrical bodies featuring ornamental friezes and miniature architectural motifs, typically dentils overhanging a Doric frieze. While these *arulae* are considered characteristic of the material culture of eastern Sicily in the third century B.C.E., their chronological development has received little attention. I propose on stylistic, technical, and stratigraphic grounds that several examples from Morgantina significantly post-date the capture of the city by the Romans, and their use may extend into the first century C.E. *Arulae* of the third century B.C.E. were produced in several standardized sizes and exhibit a wide array of decorative schemes and motifs. By contrast, *arulae* from later deposits are made with a coarser fabric and display a much narrower range of ornaments. And while earlier *arulae* from Morgantina were used in households, public spaces, and sanctuaries, the late examples are found exclusively in domestic settings. Nevertheless, their cylindrical form and continued use of Greek architectural motifs demonstrate a certain familiarity with these bygone cult implements, even as the technical knowledge and refined production practices of the early *arulae* were lost. Terracotta *arulae*, then, may signal a persistent affinity with a Greek-Sicilian heritage on the part of certain residents of

Morgantina and a deliberate effort to maintain traditional ritual practices within the houses of the depopulated Roman town.

Session 8D: Joint AIA/SCS Colloquium Monumental Expressions of Political Identities

Organizers: *Nicholas Cross*, Illinois Mathematics and Science Academy, and *Emyr Dakin*, The Graduate Center, CUNY

Colloquium Overview Statement

Any individual or group possesses multiple identities that are constructed and expressed through various means and media. Identity, broadly understood, has been a subject of great interest to scholars of the ancient Mediterranean (Derks and Roymans 2009; Gruen 2011; Mathisen and Shanzer 2011; Mattingly 2013; Zacharia 2016). This panel, however, proposes to explore the ways in which political identities were conceived, represented, and interpreted in antiquity through material artifacts and structures, an approach that follows a growing trend in scholarship (Coskun, Heinen and Pfeiffer 2009; Ma 2013; Chaniotis 2014). What factors influenced the monumental representations of political identities? How did a local political identity reflect or reject that of the larger region or empire? How were political messages transmitted through physical monuments, and how did contemporary audiences interpret them? What advantages does the perspective of identity formation through monuments offer to modern scholarship? With the setting for this conference being Washington, DC, a city filled with monumental expressions of political identity, at a moment when there is a national debate over commemorative statues, this panel's exploration of ancient monuments contributes a broader historical understanding and greater perspective of this timely subject.

This panel explores a wide array of case studies throughout the ancient Mediterranean, at various periods (in Archaic, Classical and Hellenistic Greece, and in Republican and Imperial Rome), and via assorted media. Paper #1 examines the treasury terrace at Olympia and proposes that the monuments erected there expressed a message of interstate cooperation rather than competition. Paper #2 argues that through the monumental cult statue group in the Temple of Despoina at Lykosoura, the synoecized Megalopolis communicated a pan-Arkadian identity and asserted its own position in contemporary geopolitics. Paper #3 examines an inclusive representation of civic identity in a unique honorary decree from Hellenistic Olbia that moves beyond a simple dichotomy of Greek and barbarian. Paper #4 shows how the relief on the Sebasteion at Aphrodisias depicting Nero and Armenia signified the autonomy of local elites to create their own ideologies that contrasted with the imperial center at Rome. Paper #5 provides an examination of the hybrid political identity of the western community at Gades as a Tyrian colony and a Roman city, as reflected in its monumental complex of the Herakleion.

This panel should be of interest to members of the AIA and the SCS on account of its integration of both archaeological and non-archaeological material. Whereas this panel is interested in objects and structures as conveyors of political identity,

politically charged messages drawn from the physical evidence may be incomplete, and thus only partially understood without their narrative contexts. When combined with available literary evidence, monuments shed light on how communities identified themselves and their political activities in the wider world. The panel is also suitable as a joint AIA/SCS session because it is meant to act as a methodological bridge between disciplines, time periods, and regions, to reflect more thoroughly upon the intersection of political identity and material representations. The question of political imagery in physical media is particularly suited to this interdisciplinary approach because the papers, each treating the subject from a different context and perspective, compare across time and space how communities portrayed their political identities. But the ultimate objective is to move beyond the concrete data from the material evidence and to illuminate the diverse political messages which the objects represent, whether this is interstate cooperation (Paper #1), the political autonomy of a community (Papers #2 and #4), the ideal citizen in a diverse community (Paper #3), or hybrid identities (Paper #5). Taken together, these papers touch upon the fundamental problems facing those studying communal identities, material culture, and cultural interactions, forming a panel with relevance to ancient scholarship as well as to the contemporary debates surrounding issues of monumentality, thus especially well-suited to a conference in the political capital of the nation.

Representations of Interstate Cooperation in the Archaic Treasuries at Olympia: A Constructivist's Interpretation

Nicholas Cross, Illinois Mathematics and Science Academy

Between 600 and 480 B.C.E., ten Dorian Greek communities from across the Mediterranean world—six from the west (Syracuse, Epidamnus, Sybaris, Selinus, Metapontum, and Gela), one from the Propontis (Byzantium), one from north Africa (Cyrene), and two from the Greek mainland (Sicyon, Megara)—dedicated treasuries at Olympia. In the northern sector of the Altis, the treasury terrace (Schatzhausterrasse) overlooked the Sacred Road which connected the preexisting Temple of Hera to the west and the Stadium to the east. Ranging from 4.42 x 5.78 m (Treasury VIII) to 13.17 x 10.85 m (Treasury XII), each treasury displayed objects of a military, athletic, mythological, or religious nature. Why did the donors exhibit their objects in this way, and why at Olympia? What was it about this site, a place of competition and religious ceremony, that attracted such monuments? What messages were conveyed through these buildings, their location, and their inventories?

Questions such as these have occupied scholars ever since Ernst Curtius and Wilhelm Dörpfeld published the results of their Olympia excavations in the late nineteenth century. The treasuries have been characterized as “une offrande et comme un abri d’offrandes” (Roux 1984, 154), a means of elite display (Morgan 1990; Neer 2007, 225–64), “a permanent embassy, representing the ... wealth of the cities that had built them” (Valavanis 2004, 63), “club houses” for visitors from the donating communities (Spivey 2012, 187), and an “‘international’ stage for architectural display and ... a center for architectural innovation” (Klein 2016, 132).

This paper engages with and builds upon this previous scholarship but proposes that the treasuries signified interstate cooperation between their donors.

Although it is tempting to compare the treasuries at Olympia with those at Delphi (Morgan 1990; Jacquemin 2003, 67–80; Mari 2006, 36–70; Scott 2010), a comparison which leads to interpretations of the treasuries at both sites as symbolic of interstate rivalries, this paper sees the ones at Olympia as emblematic of interstate cooperation in the Archaic period. The first half of the paper shows this through its exploration of the archaeological and literary evidence (Paus. 6.19.1–15; Ath. 9.479f–480a; Di Nanni 2012) for the architectural features, location, and inventories of the Olympic treasuries. Their relatively homogeneous architectural designs, their interactive grouping in an orderly, roughly equidistant line, and the similarity of (and transferability of) their inventories make it difficult to see the buildings engaging in a fundamentally agonistic display. Instead, when taken all together, the treasuries and their common elements of design, location, and inventory were visible expressions of interconnected political identities.

Having established the appearance and spatial dynamics of the treasuries, the paper proceeds in the second half to interpret this evidence in light of Constructivism (no relation to Constructivist Architecture of the early twentieth century), a relatively new political science model that sees relations between states as socially constructed through ideas and discourse (Zumbrunnen 2015, 296–312). When applied to the treasuries at Olympia, Constructivism illuminates the intersection of the buildings and the interstate political identities of their donors. While following many scholars who reject the Panhellenic ideology as a motivating factor the building of the treasuries (Morgan 1990; Scott 2010; Spivey 2012), this paper's Constructivist reading nonetheless argues that the treasuries were positioned in a collective dialogue with each other and with those who viewed them. For the majority of the donors, located far away from the mainland, investing in the development of Olympia, instead of in their own civic centers or their *metropoleis*, was a sign of their Greek identity and their treasuries communicated a collective political identity. In the Archaic period, Olympia, already a popular site for religious activity and athletic competition, became a conductor for interstate cooperation. By focusing on the competitive aspects in the athletics and architecture at Olympia, modern scholarship has neglected this important feature of the treasuries. This paper, with its interdisciplinary and innovative approach to the subject, fills in that gap.

Local Legends and Power Politics in the Cult Statues of the Temple of Despoina at Lykosoura

Ashley Eckhardt, Emory University

A cult statue within a Greek temple simultaneously manifested the presence of the divinity in the human realm and communicated that deity's ties to the local community. A marked escalation in the production of cult statues occurred in the second century B.C.E. as Greek *poleis* used the erection of sacred monuments to negotiate the changing political environment of this time. Among this production was the monumental cult statue group created for the Temple of Despoina at Lykosoura, which had been incorporated into the Megalopolitan synoecism of 369

B.C.E. I argue that the cult statue group at Lykosoura helped redefine an Arkadian identity in the second century B.C.E. through the employment of a local sculptor, local marble, and allusions to the Arkadian goddess's local mythology. In so doing, Megalopolis not only solidified its preeminence in Arkadia, but also promoted its own position within the contemporary political turmoil of the Mediterranean by aligning itself with an esteemed cult, largely of its own making.

In the first section of the paper, I examine how the distinctly Arkadian elements of the cult statue group contributed to the creation of a pan-Arkadian identity at Lykosoura. Scholars of Hellenistic religious practices have demonstrated that numerous cities throughout the Mediterranean propagated their patron cults through the implementation of Panhellenic festivals, monumental architectural renovations, and new cult statues (Chaniotis 2002; Parker 2009; Platt 2011; Melfi 2016). I suggest that the renowned second-century B.C.E. sculptor Damophon of Messene created the Lykosoura statue group in such a way as to make the cult of Despoina seem even more venerable than it was in practice. Pausanias described the worship of Despoina as the most prevalent in Arkadia (8.37.9), yet the goddess's sanctuary is not mentioned in any extant literary or epigraphic source prior to the second century B.C.E. The extant architectural remains of the sanctuary date after the Megalopolitan synoecism, leading Alaya Palamidis (2018) to suggest that the newly established city of Megalopolis transformed Lykosoura into a cult center that communicated a pan-Arkadian identity to link the formerly independent communities together. Damophon expressed this Arkadian character in the Despoina cult group through his choice of figures; the four major figures of the composition were linked only in the local Arkadian mythology of the goddess. The Arkadians worshipped Despoina as a powerful nature goddess tied to the pastoral life specific to the region. Moreover, by using local marble for the cult statue group, Damophon expressed physically the ties between this deity and the natural resources of Arkadia.

In the second section of the paper, I demonstrate how the scale of the cult statue group highlighted the political identities of Megalopolis and the Arkadians. Much scholarship on Hellenistic cult statues has discussed how many smaller temples like that at Lykosoura contained comparatively colossal cult images in this period, thereby clearly evoking the power and majesty of the divine figure (Cain 1995; Faulstich 1997; Damaskos 1999; Ridgway 2000; Mylonopoulos 2011). Damophon used the temple's small dimensions to his advantage; though they would have stood just under six meters tall, the Lykosoura figures filled the entire back wall of the temple's cella. As such, they commanded an imposing presence that illustrated the magnificence of the deities. However, I suggest that this monumental scale further highlighted the significance of the sanctuary within Arkadia through the illusion of an awe-inspiring monument, reminiscent of the famed cult statues of the Classical period. Through his choice of content, materials, and scale for the Lykosoura cult statue group, I argue in this paper that Damophon created a monument that exhibited a distinctly Arkadian character while also providing the sanctuary with an air of antiquity and veneration that masked its relatively recent creation. This monument thus fabricated simultaneously the local identity of the community and the significance of this pan-Arkadian cult in order to bolster Megalopolis's political position in the second century B.C.E.

The Honorary Decree for Karzoazos, Son of Attalos: A Monument for a 'New Man'?
Emyr Dakin, The Graduate Center, CUNY

Although the first edition of the Olbian posthumous honorary decree to Karzoazos, son of Attalos, was published well over a century ago (Henzen 1876), it has garnered little attention, usually only referred to when the honorand's name is included among inscriptions that contain Iranian names (Podossinov 2009). Latyshev's edition of the text dated Karzoazos's decree to the "Imperial period," after Olbia had been destroyed by the Thracian invasion of Burebista in the 50s B.C.E. (IosPE I² 39). According to Dio Chrysostom, the city was rebuilt post-invasion and the citizenry replenished by the acceptance of indigenous people into the citizenry (36.11). In this paper, I argue that the decree is important evidence of both the expansion of the citizenry and an inclusive notion of civic identity.

Karzoazos's Iranian name is not the only indicator of his new status. Much more important is the lack of reference to the honorand's family and ancestors—details typically mentioned in such decrees. The salience of the absence of any family references, I propose, allows the orator who composed Karzoazos's decree to cast the city and its past benefactors as the honorand's surrogate family. At the same time, the orator deflects any reaction of envy at, what could be called metaphorically, a new man's success. He accomplishes this, as I show in the second section of the paper, by portraying the honorand's civic duties as painful and burdensome. Finally, I examine the term *philanthropia*, which appears in line 21 of the decree, in the context of a new man. Although the expression has been associated with the encroachment of Roman power (Grey 2012), I argue that Olbia's decision to monumentalize *philanthropia* had special importance in a city where civic identity could not be characterized as a simple dichotomy between Greek and barbarian.

Although the allusion to an honorand's parents was a standard element of Greek honorary degrees, contemporary rhetorical handbooks offered a strategy to adopt if an honorand's ancestors were of little or no consequence. Theon's *Progymnasmata*, for example, suggests that a man's city could fill a surrogate role (8.110). The honorary decree to Karzoazos is a unique example of this approach. The orator not only employs a metaphor that is commonly associated with blood lineage to incorporate Karzoazos into the city's ancestry of benefactors, but also exploits the notion of experience, toil, and pain to efface any idea of inherited virtue. The same strategy, I maintain, serves to negate any envy that might arise at the success of what could be called a new man.

Although some honorary decrees depict their honorand's activities as both painful and burdensome, these are for living persons (Wörrle 1996). The rhetorical handbooks corroborate the notion that envy was not associated with the dead when they assert that "envy is a rivalry with the living" (Theon, 110), underlining the singular attempt by the orator of Karzoazos's posthumous decree to ward off any resentment felt at a new man's success. Furthermore, no other Olbian decree shows evidence of such a strategy. The orator's particular approach to introducing the honorand strengthens the argument that the honorand was a new man.

Finally, this paper examines the term *philanthropia*, as used in the decree. Grey suggests that the celebration of *philanthropia* towards all men, in place of pride in Greek ethnicity, was part of the ideological process by which civic Greeks reached an accommodation with Roman dominance at the end of the Hellenistic period

(Grey 2012). However, I argue that the term is in keeping with the rest of the decree, extolling a man because of his political accomplishments—despite the nature of his background. Moreover, I also show that for all the cities of the North shore of the Black Sea, there was never a simple dichotomy between Greek and barbarian. The epigraphical record suggests a more complex relationship between the indigenous and Greek peoples—one which the monumental decree to Karzoazos illustrates.

Refashioning the East in the Roman Provinces: The Relief of Nero and Armenia at Aphrodisias's Sebasteion

Timothy Clark, The University of Chicago

How local elites, especially those who governed cities in the Hellenized eastern provinces of the Roman empire, constructed their identities despite owing ultimate allegiance to Rome has been the subject of much scholarship (Price 1984; Alcock 2002; Raja 2012). The Sebasteion from Aphrodisias in southern Asia Minor represents an ideal case for this question. This sanctuary to Aphrodisias's principle deity, Aphrodite Prometer, and to the Julio-Claudian emperors was built between 20 and 60 C.E. by two elite Aphrodisian families who boasted close ties to the imperial cult and local civic life. In my paper, I relate the Sebasteion's sculptural program to an area of Roman ideology that research on the sanctuary has largely ignored. In the complex's South Building, Nero is shown supporting an Amazonian representation of Armenia, whom he has just defeated. I explain how the differences between this representation of an Eastern "Other" sponsored by the local Aphrodisian aristocracy and those produced at Rome under the Julio-Claudian emperors explicates our understanding of the Sebasteion as a symbol of Aphrodisian civic identity within the Roman empire.

The image of Nero and Armenia formed part of a series of reliefs on the third floor of the South Building along with other scenes of emperors conquering foreign nations. Armenia sags, defeated and demoralized, in Nero's arms. Her slouched head and deadened expression signify her death or complete dejection. Her exposed breasts, Phrygian cap, and bow marked her as an exotic Eastern Other. Nero is shown naked, with a Corinthian Helmet, like a Greek hero. By contrast, imagery during Augustus's reign never showed a Roman explicitly subduing either Armenia or Parthia, the empire's two principal Eastern enemies, but showed them kneeling before or hailing the emperor (Rose 2005; Lerouge 2007). Augustus's regime thus never explicitly declared that Parthia or Armenia had been conquered and were now part of the empire *per se*. Under Nero, however, images of the two states disappeared from Roman material and visual culture entirely. By contrast, Armenia's deadened expression and feeble form testify to Nero's violent subjugation of her.

My paper first examines the relief in the context of the Sebasteion's sculptural program. Bert Smith (1987) has argued that Nero delicately cradles Armenia and that he will soon gently bring her into the Roman fold. However, building on Caroline Vout's analysis of the relief (2007), I argue that this scene actually implies Nero's sexualized and forceful incorporation of Armenia into the Sebasteion's Hellenized vision of the Roman empire. The second story of the South Building tied

the images of conquering emperors to Greek myths, such as Aeneas or Herakles and Nessos. The combination of the two floors recast Nero's defeat of Armenia as the act of a Greek hero or god who has subdued a threat to the order of the cosmos that the Olympian deities maintained.

In the second part of my paper, I go beyond Smith and Vout and draw conclusions about how this depiction of Armenia elucidates Aphrodisian political identities. I relate this relief to the Parthian Arch of Augustus, the Prima Porta statue of Augustus, Nero's Parthian Arch, and numismatic representations of the Parthia and Armenia created under Augustus and Nero. These comparisons show how the Sebasteion relief marks one of if not the earliest representations of actual Eastern conquest. Armenia here is not simply deferential to Roman rule but has been forced to become a full new member of the Roman *oikumene*. This view of Armenia suggests that the Sebasteion's aristocratic benefactors constructed its vision of the Roman empire using ideologies that departed sharply from views in vogue at the imperial metropole. As my paper demonstrates, the relief signifies the important autonomy of the elites in the Greek East, who could create their own conception of who the emperor was and what kind of empire he led.

The Herakleion and Expressions of Political Identities at Gades from the Hellenistic to Early Modern Age

Pamína Fernández Camacho, Universidad de Cádiz

The Herakleion, a temple dedicated to the Phoenician god Melqart, who became identified through syncretism with the Greek hero Herakles, was the most significant building on the Western Tyrian island colony of Gades, off the south-western coast of the Iberian peninsula. Founded at the same time as the colony in about 900 B.C.E., it is mentioned in classical sources more often than the city itself, as a center of religious worship frequented by various historical figures, as an oracle, and as an observation point for scientific phenomena connected to the end of the world, like the sunset and the tides. From all the information contained in classical sources, this temple must be understood as a monumental complex. It had shrines dedicated to both the Greek and Phoenician versions of Herakles and various deified abstractions; statues of heroes and generals like Themistocles or Alexander; a treasury full of symbolical objects, such as the girdle of Teucer or the golden olive tree of Pygmalion; and even a fountain whose strange behavior prompted wonder and speculation worldwide. Those elements were on display for the public to admire, and served, not only to boast of the temple's "sanctity, antiquity and riches" (Mela 3.46), but also as building bricks of the city's political identity in the Hellenistic world and later in the Roman Empire.

As a monumental complex, the Herakleion projected a very particular image of the ancient colony as a hybrid between its old Tyrian identity (used to claim kinship and preeminence over other commercial hubs in the area), and its new Greco-Roman one, the latter reinforced as the city evolved from a Roman ally to an important *municipium* of Roman citizens (Rodríguez Neila 1980). The complex visually harmonized the different identities, presenting the old side by side with the new, the real cult elements side by side with mythical landmarks, hero keepsakes, and bodies of monsters which were originally a figment of Greek imagination. It

was a public testament to the city leadership's willingness to adapt in a changing cultural landscape.

This paper analyzes the contents of the Herakleion as described by ancient Greek and Roman authors, such as Polybius, Strabo, Pomponius Mela, Silius Italicus, Philostratus, and Porphyry. Previous scholarship has approached this monumental temple complex to gain a better grasp of Phoenician religion and the workings of Eastern temples (Will 1950–1951; Tsirkin 1981; Bonnet 1988; Marín Ceballos 2011), or to discuss the imaginary landscape of the Far West in Greek and Roman sources (Cruz Andreotti 1994; Marín Ceballos 2011; Fernández Camacho 2015). But the purpose of this paper's analysis is to study the projection of the city's political identity through the Herakleion. This new perspective recognizes the agency of this community of citizens, who have so often been reduced to the role of mere recipients of cultural colonization by studies that have focused on the Greco-Roman view of the remote West.

Such a shift in focus agrees with the archaeological and literary evidence of the city's importance during the Hellenistic and Imperial eras. There are clear parallels between the Herakleion and the great Eastern temples (Marín Ceballos 2011), where conscious adaptation of traditional cults to Greco-Roman parameters had a political dimension, and was not part of a cultural effacement forced upon them by outside agents. As an enclave of an Eastern civilization in the West, Gades retained a similar measure of control over how it wished to be perceived by the successive powers who held sway over the area, in contrast with other Iberian peoples who were often forced into the paradigm of uncivilized savages.

The paper concludes with a brief survey of medieval and early-modern traditions that involved the survival of pagan imagery originally connected to the temple and its god under Christian avatars (Almagro Gorbea 2011; Fernández Camacho 2017). Evidently, the old practice of representing flexible identities in the face of cultural changes did not die with the Herakleion temple.

Session 8E: Open Session Roads, Rivers, and Harbors

Persistent Pathways: New Evidence from the Coriglia Excavation Project

William H. Ramundt, University at Buffalo, and *David B. George*, Saint Anslem College

This paper will present the results of recent excavations at the Etrusco-Roman site of Coriglia, located northwest of Orvieto, Italy. The major occupation of Coriglia begins with an Etruscan phase in the sixth century B.C.E., and reaches its peak during the Roman Imperial period. The site occupies a large hillside defined by a series of L-shaped retaining walls. These retaining walls are persistent throughout the life of the site and at various periods support a domestic area, two bath complexes, a medieval church, and, in the Roman and Etruscan phases, a possible sacred space associated with a hot spring. The disparate uses of the site make it difficult to understand the function of Coriglia and its place in the larger landscape, but new evidence offers a solution to connect these varied activities.

One of the major features investigated this season is a roadway that connects several areas of the site. Previously, it was thought that this roadway, with its multiple and complex phases, began in the late third or early fourth century C.E. and persisted through at least the seventh century C.E. Intriguingly, the 2019 campaign has revealed an earlier phase of the road that dates to the late first century B.C.E. with evidence of even earlier phases during the Etruscan occupation of the site. This suggests that the road was consistent feature of the site through its life and was constantly maintained, modified, and adapted to remain functional. This paper will discuss this new evidence and how it exhibits a persistent organization, use, and function of this area of the site that, when combined with the other evidence from this and previous seasons of excavation, allows for a better understanding of Coriglia and its place within the Umbrian countryside.

Preliminary Results from the 2019 Field School Excavations at the Vada Volaterrana Harbor Project

Stephen B. Carmody, Troy University, Kelsey R. Mitchell, Troy University, Kristen M. Bird, Troy University, Simonetta Menchelli, University of Pisa, Stefano Genovesi, University of Pisa, Francesca Bulzomi, University of Pisa, Alberto Cafaro, University of Pisa, and Paolo Sangriso, University of Pisa

Vada Volaterrana was the harbor system of the Etruscan city of Volaterrae, established in the seventh century B.C.E. In imperial times it included a system of docks, pottery factories, and farms spreading across the coastal plain between the Fine and the Cecina rivers, having its main center in the area occupied by the modern-day small town of Vada (Municipality of Rosignano M.mo, Province of Livorno). Beginning in the 1980s, excavations conducted by the University of Pisa have revealed approximately a quarter of the harbor system at the San Gaetano site, about two kilometers north of Vada. It was built during the Augustan age, later abandoned in the mid-seventh century C.E. and it included a large warehouse, a small thermal bath, a fountain/waterhole, a large water tank, a public thermal bath, and the head office of the guild that ran the everyday operations of the port.

In 2015, a GPR (Ground Penetrating Radar) identified structures in the southern sector of the site. Excavations in this area have uncovered a bread oven in the oldest portion of the structure dating to the first century C.E. Between the end of the first and the beginning of the second century C.E., a large rectangular building comprised of seven rooms was built. At the beginning of the third century C.E. more rooms were added that included a large apsed wall. Rich decoration suggests the importance of this room, which possibly functioned as a meeting hall. Additionally, these excavations have revealed that these structures were built upon an earlier Late Bronze Age settlement.

In the summer of 2019, a collaborative project between the University of Pisa and Troy University began focused on detailing the foodways of the site's inhabitants during all phases of occupation. Flotation samples were collected and processed in order to collect carbonized plant and animal food remains from the site. Samples were collected from multiple rooms, different occupational sequences, and from inside and outside of the structures in order to detail changing subsistence strategies over time and across space. In the paper, we detail our collection

activities and our preliminary results in order to describe the day-to-day life and subsistence activities of the men, women, and children that occupied the site.

Morgantina's Lost Port and Buried River: Geoarchaeological Insights into the Paleohydrology of Central Sicily

Jonathan Flood, Frostburg State University, *Alex Walthall*, University of Texas at Austin, *Tim Beach*, University of Texas at Austin, and *Robert Gorham*, Case Western Reserve University

The ancient city of Morgantina is today located deep in the dry Sicilian interior, more than 50 kilometers from the sea's edge and the expansive maritime networks of the Mediterranean. Yet, despite the site's remote inland location, there is ample archaeological evidence that in antiquity Morgantina enjoyed the status of an important regional economic center, evidence ranging from the large quantities of imported pottery that arrived at the Archaic settlement to the city's sizable Hellenistic agora and eventual construction of a Roman *macellum*. This apparent divorce between geographic isolation and commercial integration has led some scholars to hypothesize that Morgantina's hydrologic connectivity must have been better in the past. To explore this idea, the authors collected new geophysical, geospatial, and geochemical data during the 2018 and 2019 field seasons, data that confirm sweeping changes in the river systems which once fanned across central Sicily. This paper highlights the dynamism of the human-hydrologic relationship in central-eastern Sicily between the Iron Age and present day. By combining drone survey, sedimentary lithofacies analysis, descriptive fluvial geomorphology, and C14 dating on cutbank sequences, our team has begun to document pre-Iron Age fluvial conditions and subsequent erosional/depositional episodes that followed the expansion of both Greek and indigenous settlements into the central watersheds of the territory surrounding Morgantina (e.g., Dittaino and Gornalunga rivers). Paleohydrologic reconstructions based on field-data allow us to situate the site of Morgantina's Iron Age and Archaic settlement along the fall-line of a long-buried riverine landscape. The preliminary results of our investigations appear to confirm the earlier hypothesis that Morgantina once controlled an active riverine port, which straddled the line between upcountry resources and those of the coastal plain. Erosion from land-clearance in the upper watersheds beginning as early as the tenth century B.C.E. accumulated as deposition in the valley bottoms, infilling formerly navigable channels near the fall-line and contributing to the progradation of the coastline, which gradually pushed the wider world of water-borne commerce further away from the Morgantinoi. We conclude by considering how a better understanding of the community's environmental successes and missteps contextualize human activity in the unfolding Anthropocene of the present day.

On the Water's Edge: Building Rome's Emporium

Christina Triantafyllou, University of Oxford

In Rome's Testaccio region, three sections of the Tiber riverfront harbor, commonly referred to as the Emporium, have been excavated, consisting of stretches

of quays, ramps, and at least two levels of storerooms in brick and reticulate-faced concrete—evidence of the crucial supply network to Rome of goods from its hinterland and the wider Mediterranean. Brick stamp evidence reveals the building works to have taken place primarily in the early second century C.E., a period of intensive building construction in the imperial capital. This paper explores the evidence for the construction of these sections of the Emporium, the practicalities and issues involved in building works taking place on the water's edge, and an understanding of the size and scale of the workforce required for its construction. The faced concrete of the ramps and quays necessitated the creation of cofferdams, enclosures in the river next to the construction areas that enabled the water to be removed in order to allow work to take place below the waterline. Vitruvius provides information on the possible methods of construction for cofferdams as well as for mechanisms for the large-scale extraction of water. The spatial constraints of building in Rome's congested urban environment would have necessitated the use of boats for storage of equipment and building materials as well as for working platforms for the driving in of wooden piles to create the cofferdams. Conducting a quantitative analysis of the building materials used in the Emporium and referencing pre-industrial labor manuals, it is possible to estimate the minimum size of the workforce needed for the Emporium's construction. The results of this study show the Emporium was a well-choreographed building project requiring significant planning in order not to impede the constant flow of traffic on the Tiber which was so essential to Rome's existence.

Don't Rock the Boat: Negotiating Fishing Rights on the Rivers of the Roman Empire

Christy Q. Schirmer, University of Texas at Austin

As Rome expanded its control in regions with scores of inland settlements, exploiting local rivers and streams for food must have been an important component of the empire's regional economies. How this exploitation played out on the ground is a subject largely unaddressed by the ancient sources and is difficult to assess in the archaeological record. Marine fishing and the role of the sea in Roman economies have enjoyed robust scholarly attention in recent years, but the business of river fishing is not well understood. This paper examines what we know of fishermen and fish-merchant *collegia* and considers them in the context of rural riverine environments in an attempt to better understand how fishermen organized their activities in remote inland areas. A survey of Roman legal texts suggest that fishing in rivers was ubiquitous but was generally unregulated from the top down. Based on an examination of legal, epigraphic, and material evidence from the banks of the Tiber as well as provincial sites, I argue that river fishermen must have frequently relied on cooperatives and other informal regulatory mechanisms in order to maintain a balance of controlled access to what was essentially a public resource. Fishing is particularly well-suited to serve as an example of how commons-sharing can both introduce and correct problems of competition among interested parties when formal regulation is lacking, and may offer insight into the workings of other trades and industries as well. With this paper I aim to shed new light on an industry whose importance to social and economic history has been inversely proportional to our understanding of its practice.

Session 8F: Open Session **Prehistoric Cretan Ceramics**

Knossos, Phaistos, and the Neolithics of Crete: New Light on Chronology, Connectivity and Cultural Divergence before the Bronze Age

Simona V. Todaro, Catania University, and Peter D. Tomkins, University of Sheffield

What is the Cretan Neolithic? A seemingly simple question, but one that has revealed a Protean elusiveness to generations of researchers. Most have approached it from the partial perspective of one or the other of the two main deep sequences, Knossos or Phaistos, or else from more short-lived Neolithic site assemblages, which typically relate to Phaistos or Knossos but never both in any satisfactory way. Consequently, our understanding of the Cretan Neolithic continues to hinge on the longstanding question of how the two main sites actually relate in chronological and cultural terms. Various schemes and solutions have been proposed, but a satisfactory correlation has proved elusive. Chief among the factors behind this has been the inevitable confusion that results when the expectation among twentieth-century researchers of a single, homogenous, unilineal trajectory of Neolithic cultural development on Crete (mirroring similar expectations of Minoan unilineal development) clashes with the reality that cultural divergence is just as much a feature of the Neolithic as it is of the Bronze Age.

In this paper we outline a new account of the chronological and cultural relationship between Phaistos and Knossos during the Neolithic that draws on our respective studies of stratigraphical, ceramic, and cultural development at the two sites over the past two decades. In the process we shed new light, not just on chronology, but also on the multiple cultural identities that characterize the Cretan Neolithic and configure its changing relationship with the wider world of the Aegean and beyond.

From Coarse to Fine and All through Time: Trickle Pattern Ware from the Early to Late Bronze Age on Crete

Lauren Oberlin, University of Michigan

The trickle pattern motif appears on ceramic vessels from Early Minoan I through Late Minoan III on Crete. First seen at Priniatikios Pyrgos and Charakas, Myrtois in the Early Minoan I period and seen in large quantities at Myrtois Fournou Korifi in EM II, the dark-on-light trickle motif continues in use for 2,500 years through the end of the LM IIIB period. This motif, depicting a red, brown, or black liquid trickling down from the top of a vessel has been affiliated by previous scholars with the liquid products of wine, easily correlated due to the motif's dark pigment, or olive oil. This decoration is seen commonly on the exteriors of courseware vessels, such as *pithoi* and other jars in the Prepalatial and Old Palace periods. The Prepalatial period use of trickle pattern is most distinctive at the site of Myrtois Fournou Korifi, where the courseware vessels remaining near the production and storage areas numbered eighty-nine. The use of trickle pattern on courseware remained standard until the end of the Old Palace period. However,

in the shift to the New Palace period, the application of trickle pattern to ceramic vessels undergoes a paradigm shift, seen in its innovative application to fineware vessels. With the intention of facilitating a discussion on this dramatic cultural shift and to posit the ideological shifts on consumption in this transition, evidence from the EM II through LM III will be presented, highlighted by the sites of Myrtos Fournou Korifi (EM II), as well as Knossos and Palaikastro (MM I – LM III) working as both comparison and contrast to each other. These two noteworthy sites have evidence of trickle pattern in great quantity (65 vessels at Knossos, and 66 vessels at Palaikastro) throughout a great period of time.

A View from the Center: Ceramic Consumption in Middle Minoan IIB Sector Pi at Malia

Georgios Doudalis, Ruprecht-Karls Universitat Heidelberg

This paper discusses the recently excavated late Protopalatial ceramic material from a bone and stone workshop located in Space 17 of Sector Pi at Malia, which was destroyed by fire at the end of the Middle Minoan IIB period (ca. 1700 B.C.E)

During the Protopalatial period, Malia is considered a Palatial center divided into quarters that share elite architectural characteristics later appearing in concentration throughout Palatial structures of the proceeding Neopalatial period. The view from Quartier Mu has led scholars to assume that the social structure at Malia during the Protopalatial period was composed of competing hierarchies operating locally.

Space 17 of Sector Pi consists of two distinctive Protopalatial layers, from which the first was an upper story collapse and the second the ground floor. In both layers there is evidence of stone- and bone-working, as well as a considerable amount of pottery including 324 accessioned vessels. The majority of these vessels belong to drinking, storage, and pouring wares with some evidence of cooking present in both layers, indicating a variety of activities happening in the workshop toward the end of the Protopalatial period.

The analysis and interpretation of this material is of great importance because, aside from the published material from Quartier Mu, it is the first well-stratified and documented space in the Palatial Center of Malia. Thus the comparison of the ceramic material from this space with that found in the workshops of Quartier Mu creates an opportunity to explore questions of comparison between the two spaces, including distribution and consumption of ceramic material therein, as well as patterns of consumption of social agents simultaneously occupying different areas of the Palatial settlement of Malia at the end of the Protopalatial period.

Small but Mighty: Miniature Ceramic Vessels in MM IB-LM IB Minoan Settlements on Crete

Rachel Dewan, University of Toronto

Miniaturization is a hallmark of Minoan art and material culture. Although miniature objects have been recognized as characteristic of Bronze Age Aegean assemblages for more than a century, interpretations have been limited, often based

on assumptions and restricted to ritual contexts. Some recent scholarship has attempted to build on earlier work and offer more comprehensive approaches to miniatures, but the need for a broader analysis of miniaturization in Minoan material culture remains. While miniature vessels are most commonly associated with funerary and cultic contexts, found in tombs from the Pre- to Postpalatial periods or on Minoan peak sanctuaries, they also appear in settlement contexts. How are we to interpret miniatures when they are found in “domestic” or otherwise “secular” spaces? To address this question, I have conducted a detailed analysis of the material characteristics and contextual associations of miniature pottery vessels from a range of Proto- and Neopalatial Cretan settlements. The study investigates the form, function, and technology of miniature pots from a wide variety of domestic and palatial contexts, including living quarters, palatial courts, and household shrines. These assemblages encompass a range of forms that differ greatly in decoration and manufacture, from fine polychrome bowls to coarse open vessels. While some forms remain similar across multiple sites, others show regional preferences and trends. Through this material and contextual analysis, I explore what it may have meant to encounter the small-scale not just in the explicitly sacred sphere of Bronze Age Crete, but also in the spaces of everyday life.

New Evidence from Late Minoan I Pottery Deposits at Gournia

Robert Angus K. Smith, Brock University

New finds from the Gournia Excavation Project offer a renewed understanding of the final Neopalatial phase of the site. A number of Late Minoan I deposits reveal that the site transitioned smoothly from the Middle Minoan III to the Late Minoan I period, suffered a major disruption towards the end of the Late Minoan IA phase—presumably caused at least in part by the Thera eruption—and recovered during the Late Minoan IB phase until its destruction and temporary abandonment at the end of this period. This paper will present the pottery evidence from deposits that date to the beginning of Late Minoan I, the transition between Late Minoan IA and Late Minoan IB, and the final Late Minoan IB period of the site. The deposits include two from the Gournia palace: one that dates to the Middle Minoan IIIB/Late Minoan IA transition, and another that dates to the early Late Minoan IB phase. Both of these palatial deposits seem related to feasting activities. These will be compared to more numerous non-palatial deposits that can be placed at the end of the Late Minoan IB phase, and that indicate a variety of domestic and industrial activities occurring in the town of Gournia. Together these deposits will help us to understand the ceramic phasing of the Late Minoan I period while allowing us to contrast the activities of the palace to those that took place in the surrounding town during this final period of Neopalatial Gournia.

Cretan Overseas Connections In Late Minoan IIIC: The Contribution of Transport Stirrup Jars

Halford W. Haskell, Southwestern University

While the traditional view has been that Cretan overseas contacts underwent considerable retrenchment after Late Minoan IIIB, the export of transport stirrup

jars (TSJs) from Crete in the twelfth century contributes to an emerging sense that overseas connections remained vigorous, although probably conducted on a different model. Work on Crete, the mainland (especially Tiryns), and Cyprus has forced a reassessment of Cretan overseas connections in the twelfth century. On Crete, TSJs continued to be manufactured, many for local use but certainly some for export. There is evidence at LMIIIC Thronos Kephala, for example, for new workshops as well as the continuation of some central Cretan TSJ workshops, reflecting continued exchange networks. Some pieces at Thronos Kephala evidently come from the western Mesara. On the Greek mainland, the bulk of twelfth-century TSJs with verifiable contexts comes from LHIIIC levels at Tiryns, where the excavators hypothesize that a new elite emerged after the LHIIIB palatial period. Excavators at Tiryns have suggested that this new elite invoked “symbolic capital,” which included Cretan TSJs, to create a link with the palatial past to legitimize their status. Most TSJs at Tiryns appear to be of central Cretan type. One might note a wall bracket of Cypriot inspiration and the “Tiryns Treasure” as further evidence of overseas connections visible at IIIC Tiryns. On Cyprus, a few TSJs are found in contexts corresponding to Aegean IIIC, attesting to continuing relations with the Aegean, and central Crete seems to be the place of their manufacture. Scholarly interpretations have ranged from radical disruption to cultural continuity and varying degrees of change. This paper aims to situate Cretan TSJs in the broader discussion of Aegean overseas connections in the twelfth century, a period that represents change and evocation of the past rather than retrenchment.

Session 8G: Joint AIA/SCS Colloquium

The Roman Army During the Republican Period

Organizer: *Michael J. Taylor*, University at Albany, SUNY

Colloquium Overview Statement

The citizen army of the Roman Republic was central to the political, cultural and social history of the period. High rates of military participation (Brunt 1971) made the army one of the most prominent institutional zones of interaction between the citizen and the state (Nicolet 1980), between mass and elite, and between Romans and Italians. The combat effectiveness of the Republican army shaped the arc of Mediterranean geopolitics for centuries to come. This panel brings together new perspectives on the Roman Army from rising scholars, both through reevaluation of literary texts and incorporation of an ever expanding corpus of archaeological evidence.

Paper 1 challenges the notion that archaic Roman hoplites fought as heavy infantry. It is generally accepted that bronze cuirasses preserved in archaic tombs simultaneously offered significant protection while also burdening and even immobilizing the wearer. However, a physical reevaluation of surviving samples reveals that archaic armor was surprisingly thin and light, so that Roman “hoplites” were less well protected but also much more mobile than previously assumed. The paper concludes that we cannot assume that early Roman forces deployed as

“heavy” infantry, as even cuirassed warriors might have enjoyed the agility and mobility expected from skirmishers.

Paper 2 discusses the cultural implications of the new panoply adopted in the fourth century B.C.E., when the Romans abandoned Greek style panoply and replaced it with equipment borrowed from Celtic peoples. The paper queries reasons for the wholesale adoption of kit from peoples collectively defined as the ultimate barbarian “Other,” and suggests that the availability of Celtic equipment coincided with the recruitment of men from outside of the traditional hoplite class. The paper concludes by discussing how Rome’s Celtic equipment was mobilized in the Middle Republic to symbolize Roman national identity and hegemonic power.

Paper 3 examines cultural exchange between Roman soldiers and natives in Spain, arguing that this exchange was multi-directional, and should be understood as “Creolization,” in which a new hybrid culture emerged in the contact zone. Iberian warriors were portrayed using Roman Montefortino helmets, while the *gladius hispaniensis* and the *pugio*, the Iberian dagger, were incorporated into the Roman arsenal. Cultural exchanges in Spain during the Republic foreshadowed well-attested cultural hybridity in provincial military zones during the Imperial period.

Paper 4 questions the notion that Roman soldiers were especially loyal to their farms and families back in Italy. Rather, intensive colonization of the second century B.C.E. assumed that many Roman soldiers would not be returning to their family farms, but would instead be seeking out new communities and new horizons. Desertion was another informal path away from a life in Italy. Finally, the paper considers evidence of legions being discharged in the provinces, and the possibility that many men would have simply stayed abroad, transitioning from citizen-soldiers to fortune seekers in the Roman diaspora.

Paper 5 disputes the common assumption that the velites, the skirmishers who comprised over a quarter of a Polybian legion, disappeared in the Late Republic as part of the so-called “Marian reforms.” The paper joins a growing consensus that the Marian reforms should be dismissed as a modern scholarly construct that cannot be used to tell a simple, sudden story of military transformation. The paper notes the many instances where light infantry are attested in Caesarian armies that are not necessarily foreign auxiliaries. It also notes the use of the *evocati*, recalled veterans, as skirmishers. The paper concludes that Roman citizens continued to fight as skirmishers, even if they were no longer the youngest and poorest men as they had been in Polybius’s day.

Discussant: *Jonathan Roth*, San Jose State University

Men of Bronze or Paper Tigers?

Jeremy S. Armstrong, University of Auckland

The traditional model has long held that, in the sixth and fifth centuries B.C.E., ancient Roman warriors covered themselves in heavy bronze armor, turning themselves into slow-moving, invincible behemoths, who—like their Greek cousins—likely banded together into tight phalanxes. And while the argument around

the early Roman use of the phalanx formation has heated up in recent years (see Rich 2007; Rosenstein 2010; Armstrong 2016), there are few scholars who argue against the simple existence of heavy infantry in early Rome. From the tenets of the Servian Constitution, to the copious finds of bronze military equipment from sites around Central Italy (Veii, Tarquinia, Lavinium, Paestum, etc.), the evidence for “heavy infantry” in archaic Rome seems unequivocal. But is it?

This paper will suggest that the answer is far more complex than it initially appears and will work to problematize the role of bronze armor in both the definition of “heavy infantry” and in supporting its presence in Italy. Specifically, it will use recent analyses conducted on military equipment finds from the Museo Nazionale Etrusco di Villa Giulia in Rome, the Museo Archeologico Nazionale di Paestum, and items in private collections, to explore what detailed study of bronze military equipment finds from archaic Italy can actually tell us. Two key points will be made based on initial findings.

First, it will confirm what scholars like Krentz have recently argued looking at the Greek world: that the weight of bronze military equipment is often (massively) overestimated. While a range obviously exists, most individual pieces of equipment examined in the collections weighed less than 2 kg each, and usually closer to 1 kg. Thus the total weight for an Italian warrior’s equipment, even with the full, traditional panoply—helmet, cuirass, shield (*aspis*), greaves, spear, and sword, would certainly fall within Krentz’s (2013, 135) recent suggestion of 14–21 kg. This stands in stark contrast to the oft-cited figure of 31 kg put forward by Rüstow and H. Köchly (1852), and still often followed in modern scholarship.

Second, with this light weight came thinness. Many of the pieces of bronze equipment examined—and particularly those from before the fourth century B.C.E.—were only between 1 and 1.5 millimeters thick. It is therefore highly likely that, as has been well attested previously for the *aspis* (Bardunias and Ray 2016), many pieces of bronze military equipment would have represented little more than a thin, decorative shell which was placed over what was likely the true strength of the armor: layers of organic materials (presumably leather and felt).

Thus, in conclusion, the paper will suggest that bronze equipment from Italy in the sixth and fifth centuries B.C.E.—although often used as a key piece of evidence for “heavy infantry”—is actually not as straightforward an indicator as many have suggested. While work is still ongoing, and the sample of items is by no means either comprehensive or fully representative, preliminary study suggests that, in this period, bronze needs to be considered as only part of a warrior’s defensive system—and perhaps a largely decorative part.

Beyond Celtic: Panoply and Identity in the Roman Republic

Michael Taylor, University at Albany, SUNY

This paper examines how the Roman army in the early Republic adopted a Celtic panoply, in the process abandoning Greek-style hoplite equipment. This paper considers Roman panoply as a cultural problem, and examines the links between the distinct visual appearance of Roman legionaries and how this was deployed to articulate both Rome’s national identity as well as its waxing Mediterranean hegemony.

The first part details the Celtic origins of the major pieces of Rome's new military equipment: sword (*gladius*), shield (*scutum*), javelin (*pilum*), mail armor, and Montefortino helmet. While the Celtic origins of many of these items is relatively well established, the cultural implications of the panoply deserve scrutiny, especially given how shifts in panoply might reflect and even constitute cultural identity (Taylor 2017). Indeed, one curious result of the new panoply was that a Roman legionary appeared very similar to a Gallic warrior, even at the time when the Romans, along with their Hellenistic counterparts, were starting to fashion the Celts as the ultimate "Other" (Marszal 2000).

The next section seeks possible military and cultural explanations for the new panoply, suggesting among other factors that the new kit may have been driven by mass recruitment from outside of the narrow hoplite class. While the new panoply worked well with the new manipular tactics of the period, the paper argues that the adoption of the new equipment was largely disconnected from manipular tactics. The Romans most likely did not seek emulate the flashy aesthetic of Celtic warriors (on the model of nineteenth-century Zhouves), and indeed often toned down Celtic decorative motifs on the models they adopted. The paper concludes that the adoption of Celtic military equipment may have been a coincidence, as Celtic gear became widely available precisely at the same time (fourth century B.C.E.) as Rome began to recruit from a wider portion of its citizen body, drafting men who had no tradition of using Greek-style hoplite equipment (Armstrong 2017, for the *pilum*).

The panoply eventually coalesced into a symbol of specifically Roman identity, especially as the Romans deployed distinctively equipped armies into Magna Graeca and the Hellenistic East. The new panoply was increasingly identified by the Greeks as Roman: this includes the Montefortino helmet on the Entella VI (Ampolo B1) tablet and the *scutum*-type shield and Celtic sword carried by the goddess Roma on the third-century coin minted by Rhegion. The Romans themselves started using their visually distinctive military equipment to articulate their own hegemony. After proclaiming "freedom for the Greeks," Flamininus deposited his personal *scutum* at Delphi (Plut. *Flam.* 12.6), while the Pydna monument of Aemilius Paullus celebrated the panoply of Paullus's legionaries (Taylor 2016). To paraphrase Denis Feeney (2016), the borrowed panoply was now "Beyond Celtic," associated not with Celtic warriors, but with Roman identity and hegemony.

Cultural Transformation of the Roman Army in Republican Spain

Dominic Machado, College of the Holy Cross

The experience of Roman soldiers fighting in Spain in the Middle Republic was markedly different from those serving in other theaters during the same period. Beginning with the Second Punic Wars, troops commissioned to the Iberian Peninsula were stationed in the region for prolonged periods of time, often in excess of six years. Throughout the extent of their service, Roman soldiers did not just keep to themselves. They were meeting, communicating, and creating relationships with various local inhabitants throughout the Iberian Peninsula. This paper examines the impact of these interactions by investigating how both Iberian and Roman representations of war changed throughout the second and first centuries

B.C.E. What emerges from this analysis is that these interactions produced significant change in the visual cultures of the Iberian Peninsula and the Roman world. Consequently, the armies that fought in Spain during Republic can be seen not just as military machines hell-bent on imperial expansion, but as cultural agents who played a key role in defining what it meant to be Iberian and Roman.

In interpreting changes to visual representations of warfare in this context, this paper will use the theoretical framework of creolization, taking inspiration from new approaches to the study of the Roman provinces (Webster 2001; Dietler 2010). As opposed to more traditional theories of acculturation, the framework of creolization has the advantage of recognizing cultural exchange as multi-directional, while still acknowledging the importance of power imbalances in these exchanges. Further, this paper also draws on recent work on the Roman Imperial army as an important sociocultural force in provincial life and extends it to a similar situation in Republican Spain (Pollard 2000; Allison 2013).

The impact of Roman soldiers on Iberian culture can be clearly seen in the changing depiction of warriors in local artwork. Beginning in the second century B.C.E., Iberian pottery begins to feature soldiers with headgear that closely resembles the Montefortino helmet worn by Roman soldiers during the Middle Republic (Quesada Sanz 1997a). This new iconography is mirrored by a change in armory among Iberian warriors who adopted the helmet in the wake of Roman incursions into the peninsula. As Roman rule became more firmly established in first century B.C.E., the visual representations of Iberian soldiers reflected the resultant changes in warfare in the peninsula. For example, in the Osuna reliefs, which date to the middle of the first century B.C.E., Iberian soldiers are depicted in auxiliary garb, a change of reflective of the new role for Spanish soldiers in Roman warfare (Mierse 2008).

It was not just the Iberian peninsula that was transformed by interactions between Roman soldiers and local inhabitants. Visual representation of Roman warfare took on new forms after the experience of war in Spain. The *gladius Hispaniensis*, which was modeled closely on similar Celtiberian weaponry, found its way immediately into visual representations of Roman warfare (Quesada Sanz 1997b). Roman soldiers with the *gladius Hispaniensis* already appear in large-scale reliefs, such as the Pydna monument and the Altar of Domitius Ahenobarbus, by the second century B.C.E. The presence of the *gladius Hispaniensis* in these highly publicized displays of aristocratic excellence and martial dominance illustrate how that the sword had quickly become instantiated in Roman military culture. Over the course of the first century B.C.E., the *pugio*, which was modeled on the Iberian bidiscoidal dagger, also became a prominent part of the visual representation of Roman soldiers. This can be seen in the grave stele of the centurion, Minicius Lorarius, which prominently displays a stylized *pugio* in the center of the relief (Keppie 1991). The centrality of the dagger on Lorarius's tomb is matched by the broader archaeological evidence: finds from the first century B.C.E. reveal a preponderance of decorative *pugiones* in Roman military contexts beyond the Iberian Peninsula.

How Loyal Were Middle Republican Soldiers?

Kathryn Milne, Wofford College

The Roman soldier has often been a victim of elite disinterest on the part of commentators both ancient and modern. One of the most striking areas where he has been ignored is what happened to him after far-flung battles and wars. The Romans associated the idea of loyalty to the military with land, allowing only those in ownership of land to serve in the legions. The idealized soldier's experience was constructed as a system that was both exemplary and cyclical. Veterans were supposed to bring their stories, awards, and courage home to inspire others to join and to contribute to a culture that valued military service highly (Polyb. 6.39.8–11). When they returned they should perpetuate the state's armies by having sons who would serve in their turn, like the exemplary soldier Spurius Ligustinus described by Livy (42.34). This paper will suggest ways that we can explore the question, how motivated were soldiers to return to their lands?

The idea that the default position of a soldier was to return to his family farm has already been weakened by the growing consensus that veterans of the second century were given settlements of new land (Tweedie 2011; Erdkamp 2011) and that against a background of large scale mobility across the Roman world, veterans were especially desirable recruits for Rome's colonies (Scheidel 2004). Rosenstein (2004) has shown that the middle Republican legions were overwhelmingly composed of young, unmarried men, and the high rate of those who did not return provided more opportunity for those left behind. This suggests that some soldiers would know their futures lay elsewhere. Homo (1970, 115) remarked that many soldiers might simply choose to remain in the provinces to which they had been sent. This paper looks at two ways that soldiers who did not go home are likely hidden from us: when deserters were subsumed into casualty figures, and when soldiers were dismissed in the provinces.

The number of securely attested deserters in the sources are surprisingly few, although "temporary deserters" who left their posts or fled a battle line before returning were more common, as were defections, which were more frequent among allied troops than Roman (Wolff 2009). Those who were never discovered, however, would hardly be notable, and it has long been recognized that Roman casualty numbers can obscure the numbers of deserters and captives (Brunt 1971, 694–97). These rates from Roman sources are notoriously problematic and are frequently wildly high in defeats (e.g., 44, 50%) and low in victories (0.5, 0.7%) especially in comparison to Greek rates at an average of 5% mortality in a win and 14% in a loss (Krentz 2011). A comparison of rates of desertion in armies with similar conditions (e.g., punishments, ease of escape) will suggest a range of percentages that we can consider realistic.

The second clue, which has received almost no scholarly attention, is the fact that return of middle Republican soldiers was diverse, ad hoc and chaotic, and it was rarely the case that an army came home together. The exact compositions of each legion changed by the year, as some men finished their required years of service, new commanders led reinforcements out to their provinces, and some soldiers received early discharge for bravery. The normal practice seems to have been discharging the army in the province or at its border (e.g., Livy 45.38.14) from where the soldiers made their way back in groups (40.41.9). When the whole

army was returned to Italy accompanied by commander and officers, it is usually because it was needed for a triumph. Normally the general was not legally nor religiously compelled to return his soldiers to Italy. I suggest that for many, faced with a daunting walk and a better idea—like trade, business, or piracy—the attachment to a Roman farmstead was an elite projection, not a lived reality.

The ‘Disappearance’ of Velites in the Late Republic: A Reappraisal

François Gauthier, Mount Allison University

It has traditionally been held that the velites, the light infantry of the Republic, were eventually replaced by auxiliaries over the course of the first century B.C.E. This has often been related with the “Marian reform” in which Marius supposedly disbanded citizen cavalry and velites. However, the theory of the Marian reform has recently been heavily criticized and is no longer tenable (Cadiou 2018). Indeed, it has for instance been demonstrated that Roman citizen cavalry continued to exist in the first century B.C.E. (Cadiou 2016). Moreover, it is now commonly acknowledged that auxiliaries were regularly used in substantial numbers since the Middle Republic (Prag 2007). Therefore, the “disappearance” of velites cannot be explained by a supposed Marian reform or a trend concerning the emergence of auxiliaries.

This paper wishes to challenge the traditional view by arguing that the velites were not actually disbanded. They continued to be used until the end of the Republic. The enduring modern historiographical construction that is the Marian reform and the often imprecise terminology of our sources are largely responsible for the old view. It is of course possible that velites eventually ceased to be recruited from among the poorest and youngest of all citizens (Pol. 6.21.7). However, references to light infantry in the first century exist and they are not necessarily accompanied by the precision that they are foreign auxiliaries (e.g., Caes. *BAlex.* 17; *Bciv.* 1.48.7, et al.). For instance, *evocati* are mentioned as fighting as light-armed troops (Caes. *Bciv.* 1.27.5). In summary, the proposed paper would fill an important gap in modern research by exploring a question whose answer has for a long time been taken for granted as a result of the theory of the “Marian reform.”

Session 8H: Workshop

Tessellated Perspectives: Moving Mosaic Studies Forward

Moderators: *Nicole L. Berlin*, Walters Art Museum, and *Amy Miranda*, Johns Hopkins University

Workshop Overview Statement

Mosaic pavements were ubiquitous across the ancient Mediterranean, documented on floors and walls from the Classical period through Late Antiquity. Although mosaics provide critical evidence for reconstructing daily life in the Greco-Roman world, they are often analyzed apart from their archaeological context. This workshop builds upon the groundbreaking research of scholars like Christine

Kondoleon and Rebecca Moholt, who emphasized the need to reintegrate mosaics into their original built environment. By considering floor pavements in situ (real or reconstructed) we can better understand the societies that commissioned them.

This workshop brings together, for the first time, a group of scholars—archaeologists, art historians, and conservators—with innovative approaches to mosaics. Our goal is to foster productive discussions and collaborations that move the field of mosaic studies forward, while remaining grounded in archaeological evidence and the ancient textual sources. The workshop uses “perspective,” both literal and metaphorical, as a means of investigating the creation of mosaics and the ancient viewer’s experience of them.

Purposefully diverse in terms of chronology, geography, and cultural purview, presenters address how mosaics functioned in a variety of contexts, from Classical houses in Greece to a Late Antique synagogue in the Levant. Franks and Spinelli discuss the role of floor pavements in the domestic sphere from two different perspectives—fourth-century B.C.E. pebble mosaics in Greek houses and tessellated pavements from *tablina* at Pompeii and Herculaneum respectively. Miranda challenges existing center versus periphery approaches to archaeological material through case studies in the Roman provinces such as Anitoch-on-the-Orantes (modern-day Turkey). Friedman offers a conservator’s perspective on the challenges of in situ mosaic conservation within a larger framework of archaeological site management, with a particular focus on the southern and eastern Mediterranean regions. The final papers take us into Late Antiquity. Berlin considers how the legacy of Vergil influenced mosaic production in fourth-century C.E. Romano-British villas. Britt and Boustan explore how the mosaics in the fifth-century C.E. Huqoq (Israel) synagogue forged a link between the space of communal worship in a rural Galilean village and the holy city of Jerusalem. Collectively the speakers draw attention to the yet untapped potential of mosaic studies, particularly through the workshop’s diverse methods and critical approaches to reception. Overall this workshop demonstrates the essential role of mosaics in developing the rich archaeological histories of diverse communities across the ancient Mediterranean world.

Panelists: *Hallie Franks*, New York University, *Ambra Spinelli*, Bowdoin University, *Leslie Friedman*, Getty Conservation Institute, *Karen Britt*, Northwest Missouri State University, *Ra’anan Boustan*, Princeton University, and *Jennifer Stager*, Johns Hopkins University

Session 8I: Open Session

Roman and Late Antique Villas

A Probable Roman Podium Villa at Castel Sant’Angelo, Rieti, Italy: 2019 Excavation Results

Myles McCallum, Saint Mary’s University, and *Martin Beckmann*, McMaster University

This paper presents the results of the 2019 archaeological investigation of a site beside the Via Salaria within the territory of the modern town of Castel

Sant'Angelo, sixteen kilometers east of Rieti and about seventy-five kilometers northeast of Rome. The site is centered on a massive masonry and concrete terrace on the north side of the Velino river valley directly overlooking a large lake that has been identified as *lacus Cutiliae* (Lake Cutilia). The form of the structure and its strategic topographic placement suggest a villa. Excavation in 2018 revealed a sequence of rooms in the northeastern portion of the terrace, including one furnished with a large apse.

The 2019 excavations expanded our knowledge of the structure's form, chronology, function, and occupational history. A niche was found in the apsidal room, set within the apse itself. This room connected via a corridor with the rooms to the east, but the access to this corridor had been blocked in a later phase of occupation. A series of hearths and a dry masonry stone wall atop of collapse within the room suggests reuse of the structure. The largest room in the east was excavated down to the floor level. The material above the floor contained much wall and roof plaster, some of which provides evidence for an advanced system of drainage. Nearer the floor a significant amount of Roman pottery was found, none of which appears to date later than the late-first/early-second century C.E. Finally, in a small room in the east part of the site a leveling fill was found, which contains datable artifacts including, much pottery and three coins, all of which indicate a date in the mid-first century C.E. This fill indicates renovations in the early imperial period, likely the monumentalization of a previously modest country house.

Archaeological Investigation at the "Villa of the Antonines" at Ancient Lanuvium: The 2019 Season

Deborah Chatr Aryamontri, Montclair State University, *Timothy Renner*, Montclair State University, *Carlo Albo*, Independent Scholar, *Roberto Civetta*, Independent Scholar, *Carla Mattei*, Università degli Studi Suor Orsola Benincasa, and *Claudio Vecchi*, Independent Scholar

Since 1701 the site known as the "Villa degli Antonini" at the eighteenth mile of the Via Appia has been associated with Antoninus Pius and Commodus, and beast-killing feats in the arena by the latter. In addition to the ruins of the bath complex that have stood since antiquity, fieldwork conducted by Montclair State University during 2010–2018 revealed a small but sophisticated amphitheater containing provisions for *vela* and passageways beneath the arena, as well as part of the residential/representational rooms decorated with several black-and-white mosaic floors.

The 2019 season concentrated on improving our understanding of the residential area, where much effort was devoted to restoring a very fragile niche mosaic with a Medusa head, part of a large, but heavily damaged, circular room (ca. 20 m diameter). To the north, additional details recovered from a crater-and-vine-carpet mosaic help to place it more accurately in the overall development of this widespread design type; an Antonine date seems to be supported by the evidence so far. Here we continued to recover hundreds of fallen fresco fragments constituting a thick destruction layer, and many of the fragments are decorated with colored geometrical or figured designs, including a swan, that when more fully restored should contribute significantly to the history of wall painting during the period. A

new sector open to the north confirmed how the ground in this area has been heavily altered in modern times and heightened the urgency to develop a long-term preservation plan for the site. Finally, in an extensive space between the amphitheater area and residential areas, where previous problems with geophysical testing and locals' stories of massive modern dumping suggested that the archaeological yield would be limited, a test trench revealed large-scale *peperino* blocks, possibly part of a structure that worked as *trait d'union* between the two areas.

The Potential of 3D Digital Imaging for the Study of Roman Villas in Sicily: The Case Study of Villa of Cadeddi on the Tellaro River (Noto)

Kaitlyn Kingsland, University of South Florida, *Davide Tanasi*, University of South Florida, *Stephan Hassam*, University of South Florida, *Reece Combs*, University of South Florida, *Paolo Trapani*, University of South Florida, and *Denise Cali*, University of South Florida

The Roman Villa of Cadeddi on the Tellaro river at Noto (Sicily) was first discovered in the 1970s and gradually explored in the late 1970s and early 1980s. With an extension of about 6,000 m², the complex, built on two terraces on the gentle slope of a hill, is organized around a central peristyle of 21 x 9 m surrounded by a colonnade with limestone columns with rudimentary Ionic capitals. The largest in southeastern Sicily, the Villa of Cadeddi has been traditionally dated on the basis of numismatic evidence to the half of the fourth century C.E. and interpreted a single-phase building which was destroyed by a fire and abandoned apparently during the second half of the fifth century. Three rooms adjacent to the peristyle and the corridor around the peristyle itself are paved with outstanding mosaic floors in African style with scenes ranging from hunting expeditions to episodes of the Iliad and to Bacchanalia. The excavations of the Villa were never published, and the only research generated in the last five decades was just on the style of the mosaics.

In early summer 2019, an interdisciplinary research project aimed at reassessing the complex and focusing of eventual phases of reuse in the Late antiquity was undertaken via a combined on-site analysis of all the built stratigraphic units and architectural elements and the overall 3D digitization. A total of 101 laser scans were taken of the villa using two Faro Focus x330 scanners while digital photogrammetry was carried out specifically on the mosaic areas of the site capturing over 2,700 images. The analysis of the data gathered on site, supported by new technical drawings extracted by the 3D data clearly shows the presence of multiple later phased of use for the villa and shed light on its peculiar spatial organization.

Melite Civitas Romana Project: the Virtualization of the Archaeological Site and Museum of the Roman Domus of Rabat (Malta)

Davide Tanasi, University of South Florida, *Rob Brown*, Australian National University, *David Cardona*, Heritage Malta, *Benedict Lowe*, University of North Alabama, *Andrew Wilkinson*, Flinders University, *Kaitlyn Kingsland*, University of South Florida, *Stephan Hassam*, University of South Florida, and *Reece Combs*, University of South Florida

In 1881, the remains of a large peristyle house containing rooms adorned with very fine mosaic floors in a late Hellenistic style were uncovered at Rabat in Malta. Further excavation carried out in 1920–1925 pointed out that such a “Domus,” toward the mid-first century C.E., must have been occupied by a person of some high political standing who undertook the expense of adorning it with a cycle of fine portrait statues representing the emperor Claudius and members of his family.

In early summer 2019, after almost a century from the end of the researches, a long-term international collaborative interdisciplinary research project (Melite Civitas Romana Project) aimed at reassessing the site of the Domus of Rabat and its role in the Roman history of the Maltese Islands started out with an overall remote sensing campaign in preparation for the excavation resuming in 2020. Part of that campaign was the Terrestrial Laser Scanning (TLS) of the entire archaeological site of the Domus and Digital micro-photogrammetry (DP) to create high quality 3D models of the mosaic floors of rooms C, D, E, and F.

The 3D models obtained will be used to update the existing technical documentation of the site and create a system of reference for the future investigation but also for a systematic reappraisal of all built stratigraphic units related to the numerous occupation phases of the complex from the early Imperial period to Middle Ages, contributing to the reinterpretation of the function and chronology of important sections of the villa. With respect to mosaic floors, the combination of the sets of 3D data, TLS, and DP, was used to create Digital Elevation Models of the decorated floors in order to highlight the criticalities in term of restoration works and to predict the future areas subject to major decay.

Shrine, Mausoleum, Monument, Import: Atlantic Trade and the Roman *Fanum* at Marboué, France

Elizabeth Bevis, Johns Hopkins University

As the western Roman empire waned in the fifth through seventh centuries C.E., economic links between regions contracted. Modern study of the long-distance trade links that remained has focused on routes with a strong military history, such as the Rhine-Rhone corridor, or on outstanding instances of trade across extreme distances, as with early Byzantine objects excavated at Tintagel in Wales. It is only recently that archaeologists have begun to build a strong case for an enduring axis of north-south trade along the Atlantic coast between the fifth and seventh centuries, largely based on archaeological ceramics (e.g., Campbell 2007; Duggan 2018). Evidence of people moving, as well as pots, has been less visible.

One exception to the archaeological invisibility of people moving along an Atlantic trade route can be seen at the villa of Marboué in central France. Marboué is a rare western villa with clear evidence for continuous use in a self-consciously Roman fashion into the seventh century C.E. Although it is best known for the early-fifth-century addition of an apsidal reception space and inscribed mosaic to its second-century *pars urbana*, closer attention to the little-studied *fanum* (a small temple or mausoleum) at the edge of the villa estate suggests a similar renovation history for that structure. The *fanum* renovations resulted in interior that, like the apsidal reception room, was in dialogue with the contemporary architecture of southern Gaul and Iberia. Architecture with this particular perspective did not

arise in a vacuum. Instead, I argue that the Atlantic trade axis first seen in the ceramic record should also be understood as a route for artistic and architectural exchange, and a continued link between the visual cultures of late-Roman Gaul and Iberia.

Archaism and Atrium Apartments in the Late Antique Villa

Sarah E. Beckmann, UCLA

The villa of Montmaurin (Le Comminges, France) is characteristic of the late antique villa in many ways. Mid-twentieth century excavations documented a series of architectural aggrandizements (apsidal halls, large entrance court and extensive bath complex) during late antique occupation, which continued through the fourth and into the fifth century C.E. In an apparent break from contemporary architectural fashions, however, two atrium-style apartments were also constructed at fourth-century Montmaurin. Both rooms were organized around central basins and marble columns, but their identification as atria is contested (e.g., G. Métraux 2018; C. Balmelle 2001), since the structure is traditionally associated with urban houses. At Montmaurin, moreover, the atrium apartments are peripherally located and could not have functioned in the Vitruvian manner. With this in mind, my paper uses Montmaurin to consider the function and purpose of atria structures in the late antique villa. Analytical study of this architectural form, I argue, permits an exploration of the motivations that lay behind the widespread construction and renovation of the villa in late antiquity.

After a review of Montmaurin, the paper places its architectural remains in dialogue with the atria found in several other late antique villas, including Chiragan in France, La Olmeda in Spain, and Milreu and Torre de Palma in Portugal. Using formal analysis I ask whether or not there are grounds to mark these atria as spaces for social negotiations. Following investigation of their function, I then consider their significance as architectural archaisms. Villa owners, I argue, were conscious of the historical character of these structures and used them, together with other types of antique material culture, to connect themselves to history. Atrium apartments therefore signal the villa's role as a legacy structure in late antiquity, one that legitimated the increasingly socioeconomically diverse late Roman elite.