2021 ASOR ANNUAL MEETING

IN-PERSON COMPONENT

PROGRAM-AT-A-GLANCE & ABSTRACT BOOKLET

Chicago, November 17-20, 2021

ASOR anticipates numerous changes to the schedule due to the ongoing pandemic. Sessions, presentations, times, and locations are subject to change.

Please check the Program Addendum posted at the ASOR help desk or view the online program for the latest schedule: www.asor.org/am/2021/schedule-2021.

PROGRAM-AT-A-GLANCE
IN-PERSON (CHICAGO)

This schedule is current as of November 19, 2021. ASOR anticipates numerous changes due to the ongoing pandemic.

WEDNESDAY, NOVEMBER 17, 2021

7:00–8:15pm
(CST)

Welcome to the Annual Meeting and Plenary Address (Grand Ballroom)
Living with Legacies: ASOR Archaeo-activism and a Future for 21st Century Archaeology
Morag Kersel | DePaul University

THURSDAY, NOVEMBER 18, 2021

8:20–10:25am
(CST)

1A. Ancient Inscriptions (Continental A, Lobby Level)
1B. Archaeology of Egypt I (Continental B, Lobby Level)
1C. Art Historical Approaches to the Near East (Continental C, Lobby Level)
1D. Hellenistic Galilee: Between Phoenicia and the Hasmonean Kingdom (Waldorf, 3rd Floor)
1E. Archaeology of Islamic Society I (Astoria, 3rd Floor)
1F. Archaeology, Community, and Mentorship: Celebrating the Legacy of Bert and Sally de Vries (Marquette, 3rd Floor)

10:40am–12:45pm
(CST)

2B. Archaeology of Egypt II (Continental B, Lobby Level)
2C. The Tell es-Safi/Gath Project after 25 Years I (Continental C, Lobby Level)
2D. New Directions in the Historical Geography of the Ancient Near East (Waldorf, 3rd Floor)
2E. New Realities? A Critical Approach to Recreating Objects for Examining and Presenting the Past (Workshop) (Astoria, 3rd Floor)
2F. From Paganism to Christianity: Transformation of Sacred Space in Sepphoris, the Galilee, and Beyond (Marquette, 3rd Floor)

12:45am–2:00pm
(CST)

Early Career Scholars' Brown-Bag Lunch and Panel, Tiffany Earley-Spadoni, Presiding (Boulevard Room, 2nd Floor)

2:00–4:05pm
(CST)

3A. Archaeology of Jordan (Continental A, Lobby Level)
3B. Theoretical and Anthropological Approaches to the Near East (Continental B, Lobby Level)
3C. The Tell es-Safi/Gath Project after 25 Years II (Continental C, Lobby Level)
3D. Archaeology of the Near East: Bronze and Iron Ages (Waldorf, 3rd Floor)
3E. Archaeology of Arabia (Astoria, 3rd Floor)
3F. The Amorites: Culture, History, and Archaeology I (Marquette, 3rd Floor)
3G. Interdisciplinary Approaches to Seals, Sealing Practices, and Administration (Joliet, 3rd Floor)

4:20–6:25pm
(CST)

4A. Museums and Social Justice (Continental A, Lobby Level)
4B. Theoretical and Anthropological Approaches to the Near East II: Levantine Entanglements (Workshop) (Continental B, Lobby Level)
4C. The Tell es-Safi/Gath Project after 25 Years III (Continental C, Lobby Level)
4D. Archaeology and Biblical Studies (Waldorf, 3rd Floor)
4E. Technology in Archaeology: Recent Work in the Archaeological Sciences (Astoria, 3rd Floor)
4F. The Amorites: Culture, History, and Archaeology II (Marquette, 3rd Floor)
4G. Stamp Seals from the Southern Levant (Workshop) (Joliet, 3rd Floor)

FRIDAY, NOVEMBER 19, 2021

8:20–10:25am
(CST)

5A. Complexity Without Monumentality: Rethinking Nomads of the Biblical Period (Continental A, Lobby Level)
5B. Archaeology of Israel (Continental B, Lobby Level)
5C. Archaeology from Every Angle: Papers in Honor of Richard L. Zettler (Continental C, Lobby Level)
5D. Digital Archaeology and History I (Waldorf, 3rd Floor)
5E. The Archaeology of the Kurdistan Region of Iraq (Astoria, 3rd Floor)
5F. Preserving the Cultural Heritage of the Madaba Region of Jordan (Workshop) (Marquette, 3rd Floor)

10:40am–12:45pm (CST)	6A. State and Territory in the Ancient Near East: Mapping Relationships and Challenging Paradigms (Continental A, Lobby Level) 6B. Biblical Texts in Cultural Context (Continental B, Lobby Level) 6C. Archaeology of Lebanon (Continental C, Lobby Level) 6D. Digital Archaeology and History II (Waldorf, 3rd Floor) 6E. Career Options for ASOR Members: The Academy and Beyond (Astoria, 3rd Floor)
12:45–2:00pm (CST)	ASOR Members' Meeting, Sharon Herbert, Presiding (Waldorf Room, 3rd Floor)
2:00–4:05pm (CST)	7A. Archaeology of Cyprus I (Continental A, Lobby Level) 7B. Cultural Heritage: Preservation, Presentation, and Management I (Continental B, Lobby Level) 7C. Archaeology of the Southern Levant (Continental C, Lobby Level) 7D. Best Practices for Digital Scholarship (Workshop) (Waldorf, 3rd Floor) 7E. Reintegrating Africa in the Ancient World (Workshop) (Astoria, 3rd Floor)
4:20–6:25pm (CST)	8A. Archaeology of Cyprus II (Continental A, Lobby Level) 8B. Cultural Heritage: Preservation, Presentation, and Management II (Continental B, Lobby Level) 8C. History of Archaeology (Continental C, Lobby Level) 8D. The Great Experiment at Tell el-Hesi: Reflections from the Past and Visions for the Future (Waldorf, 3rd Floor) 8E. Archaeology and History of Feasting and Foodways (Astoria, 3rd Floor) 8F. Archaeology of Syria (Marquette, 3rd Floor)

SATURDAY, NOVEMBER 20, 2021

8:20–10:25am (CST)	9A. The Secret Lives of Objects: Conservation Science, Technology, and Digital Humanities (Continental A, Lobby Level) 9B. Gender in the Ancient Near East (Continental B, Lobby Level) 9C. Navigating the "in Between": Identifying a Career Trajectory in Academia for the Early Career Scholar (Workshop) (Continental C, Lobby Level) 9D. Islamic Seas and Shores: Connecting the Medieval Maritime World (Waldorf, 3rd Floor)
10:40am–12:45pm (CST)	10A. Archaeology of the Black Sea and the Caucasus (Continental A, Lobby Level) 10B. Approaches to Dress and the Body (Continental B, Lobby Level) 10C. Thinking, Speaking and Representing Animals in the Ancient Near East: New Perspectives from Texts and Images (Continental C, Lobby Level) 10D. Landscapes of Settlement in the Ancient Near East (Waldorf, 3rd Floor) 10E. Prehistoric Archaeology (Astoria, 3rd Floor) 10F. Grand Challenges for Digital Research in Archaeology and Philology (Workshop) (Marquette, 3rd Floor)
12:45–2:00pm (CST)	Poster Session, Sarah Wenner, Presiding (Grand Ballroom Foyer, 2nd Floor)
2:00–4:05pm (CST)	11A. Archaeology of Anatolia I (Continental A, Lobby Level) 11B. Persia and Arabia in Late Antiquity: Bridging the Ancient and Islamic I (Continental B, Lobby Level) 11C. Archaeology of the Near East and Video Games (Continental C, Lobby Level) 11D. Slaves, Prisoners, and Unfree Bodies in the Ancient Mediterranean World (Waldorf, 3rd Floor) 11E. Archaeology of the Near East: The Classical Periods (Astoria, 3rd Floor)
4:20–6:25pm (CST)	12A. Archaeology of Anatolia II (Continental A, Lobby Level) 12B. Persia and Arabia in Late Antiquity: Bridging the Ancient and Islamic II (Continental B, Lobby Level) 12C. New Directions in Ancient Literacy (Continental C, Lobby Level) 12D. Environmental Archaeology of the Ancient Near East (Waldorf, 3rd Floor) 12E. Archaeology of the Byzantine Near East (Astoria, 3rd Floor) 12F. Network Approaches to Near Eastern Archaeology and History (Marquette, 3rd Floor)

IN-PERSON ABSTRACTS

Schedule current as of Nov. 19, 2021. ASOR anticipates numerous changes due to the ongoing pandemic.

WEDNESDAY, NOVEMBER 17, 2021
7:00pm–8:15pm (CST)

Plenary Address
Living with Legacies: ASOR Archaeo-activism and a Future for 21st Century Archaeology
Morag Kersel
DePaul University

We, the members of ASOR, live with legacies. Nineteenth and twentieth century fascination with the people and places related to the Bible resulted in a more formalized archaeology and a series of national cultural heritage laws, but also fostered an enduring western interest in the region that often marginalized local participants. We live with the legacy associated with these colonial and imperial origin stories of archaeological practice and practitioners in the Eastern Mediterranean. We also live with climate change, conflict, development, economic insecurity, iconoclasm, looting, and pandemic, factors that impact our investigation, interpretation, and protection of the past in the present. Increased recognition of these legacies and challenges has resulted in a more self-aware archaeology, characterized in part by greater collaboration with local partners, producing a less extractive and more inclusive archaeology. Every day, I see the future of living with legacies and doing good in the eastern Mediterranean in your collaborative fieldwork and publications, in the archaeo-activism of your op-eds, social media posts, and TV appearances. But our work is not done. Drawing upon ethnographic and archaeological projects in Israel, Jordan, and Palestine, I will examine the work we do (let's be honest, archaeology is one big group project, I do all of my work either with colleagues, students, and collaborators or through the kindness of strangers), the good and the sometimes not so good. I will demonstrate that ASOR archaeo-activism does not demand overtly political or extreme methods, advocating instead for a more nuanced approach to archaeology in the 21st century. Change lies in the small things (and periods) forgotten (Deetz 1977), in an archaeology that uses modern tools and technologies as agents of activism, and in foregrounding local engagement with sites and objects. Living with legacies takes an unrelenting commitment to doing better and leaving a legacy of good.

THURSDAY, NOVEMBER 18, 2021
8:20am–10:25am (CST)

SESSION: 1A. Ancient Inscriptions

TheCryptic Inscription of Mount Zion, Jerusalem: Ritual and Thenyms
David Hamidovic
University of Lausanne, Switzerland

During the excavations of Mount Zion, a cup bearing an inscription was discovered in June 2009. S. Pfann published a first deciphering in 2010. I propose a new attempt at deciphering by studying the so-called "cryptic" script. The preserved text and the archaeological context provide a better understanding of the function of the artefact. A performative ritual with the theonyms is at stake.

New Persian Period Aramaic and Phoenician Ostraca and Jar Labels from the Swiss Institute's Excavations of Syene, Egypt
James D. Moore
Humboldt Universität, Berlin, Germany
This paper reports on new Aramaic and Phoenician finds from the excavations of Syene/Aswan conducted by the Schweizerisches Institut für Ägyptische Bauforschung und Altertumskunde in Kairo under Cornelius von Pilgrim. The paper presents circa 20 sherds, nearly all of which come from the same find spot. The collection is important not only for the growing corpus of Persian period finds from Syene, but for their connections to the large corpus known from Elephantine.

The Circulation of the Storm-God's Struggle with the Death-God Motif in Ugarit and Babylonia
Ki-Eun Jang
Union Theological Seminary in the City of New York, USA

Unlike the motif of the storm-god's battle against the sea-god which shows a widespread distribution across the ancient Near East (Tugendhaft 2017; Ayali-Darshan 2020), the scarce nature of the extant evidence of the storm-god and the death-god motif prevents us from tracking uninterrupted details of its transmission history. As such, the Baal-Mot episode has been regarded as a unique piece of composition within the Ugaritic corpus, and discussions were often confined to the phenomenon of Baal's descent to the underworld without explaining particular themes centrally tied to the episode—such as the conflict over divine kingship and the storm-god's dwindled power under the personified death. In this paper, I propose that the literary tradition of the conflict between the storm-god and the god of death, as preserved in the Baal-Mot episode, was shared by the later Akkadian poetic composition, the Erra Epic, which depicts a clash between the debilitated Marduk and the god of destruction and death, Erra. Like Baal and Mot, the two divine figures in the Erra Epic, Marduk and Erra—respectively representing the storm-god and the god of death— are in conflict with each other over divine kingship. By identifying both

common and diverging points of the use of the motif of the storm-god's struggle with the death-god in the two mythic compositions, this paper further considers the implication for the scribal activity of Ilimilku and Kabti-ilāni-Marduk, which attempted to incorporate a pre-existing literary motif to serve their own scribal agendas.

The Fate of Vidranga, Once Again: The "Vidranga Passage" of TAD A4.7–8 as Evidence for the Continued use of Hebrew in Fifth Century Elephantine

Marshall A. Cunningham
The University of Chicago, Chicago, IL, USA

In this essay I explore an intriguing and as yet insufficiently addressed linguistic phenomenon. In an Aramaic letter drafted in the late 5th century B.C.E and later discovered among the Elephantine papyri (TAD A4.7–8), there exists a sequence of verbs in the perfect (or suffix) conjugation that narrates the fate of Vidranga, the local Egyptian governor. This sequence has traditionally been understood as an account of past and completed events—the typical and expected function of these forms in Official Aramaic. Lindenberger (2001) and more recently Granerød (2016), have argued that the sequence actually expresses a wish for retribution yet to come—a curse. This interpretation, which makes better sense within the context of the letter and with a number of other known historical details, is based on an appeal to the so-called "perfect of prayer" or "precative perfect" of Biblical Hebrew. While their arguments are ultimately persuasive, neither scholar has offered an explanation for how this use of the perfect—otherwise unattested in Official Aramaic—has found its way into TAD A4.7–8. Through an appeal to insights from diaspora theory and contact linguistics, I argue that this unique occurrence of the precative perfect in Official Aramaic is a byproduct of the continued use of Hebrew among the Judeans of Elephantine. Although no written Hebrew evidence has survived at the site, the appearance of the precative perfect in TAD A4.7–8 indicates an effort to reproduce the language within the multi-lingual context of Persian period Elephantine.

Aramaisms in 1QIsaa: Borrowing or Interference?

Noah D. van Renswoude
New York University, New York, NY, USA

The Aramaisms in 1QIsaᵃ have been labeled as *borrowings*. By using the term *borrowing,* the linguistic situation created is one of elements moving from the L2 (Aramaic) to the L1 (Hebrew). However, many scholars have argued that Hebrew was no longer being spoken at that time and just functioned in specific domains. Therefore, creating a linguistic situation of L1 being Aramaic and L2 being Hebrew—the opposite of how 1QIsaᵃ has been approached. The Aramaisms in chapters 46, 47, and 48 of 1QIsaᵃ show a small number of lexical items, but a much higher number of phonological and morphological items. For example, weakening of gutturals, non-assimilation of the preposition מן, 2/f/s/SC forms ending in -ī, 3/m/s suffix ‑והי, and 2/m/s forms ending in תה‑. A high degree of phonological and morphological *borrowing* indicates the most intense language contact situation (Thomason and Kaufman 1991). However, this contact situation is difficult to explain when Hebrew is taken as a dead language.

By approaching Aramaisms through the lens of *interference,* L1 (Aramaic) à L2 (Hebrew), language contact theory provides a framework that explains the quantity of morphological and phonological Aramaisms within these chapters in a simpler way than as regular borrowing or archaic Hebrew long forms. It thus offers insight into the multilingual landscape of the scribe.

Some may say that this is only a matter of terminology, however the terminology we use has a direct impact on how we approach our data and the conclusions we draw.

SESSION: 1B. Archaeology of Egypt I

The Endeavor of the Red Sea

Douglas Inglis
Institute of Nautical Archaeology, College Station, TX, USA

The Pharaonic-era expeditions in the Red Sea represent an extraordinary human endeavor. They required a massive technological leap in nautical technology, the ability to exploit far-flung resource procurement networks, and significant state organization. Extraordinarily, we have evidence for every stage of the Red Sea expeditions—from timber harvesting to mining, boatbuilding, ship design, overland transport, harbors, voyages, return cargo, ship repair, timber storage, recycling, and ultimately commemoration.

This paper will explore evidence for these stages, and the resulting web of entangled interactions that made seafaring in the Red Sea possible. While it is hard to assess the social impact of these expeditions, it should not be overlooked. Like the Space Race in the modern period, the Red Sea expeditions required massive investments in infrastructure and manpower and led to advances in technology, new expressions of power, and contributed to a revised sense of place within the broader world. While these endeavors were categorically different, it is useful to remember how transformations in technology can deeply impact society, whether in the modern or ancient world.

The Hull Lines of the 1st Dynasty Abu Rawash Boat

Traci Lynn Andrews
Texas A&M University, College Station, Texas, USA

In 2012, a 1st Dynasty boat was found interred in the Abu Rawash Cemetery M excavations. Archaeological evidence and carbon dating has placed this boat in the reign of the Pharaoh Den. This makes it the oldest of our extant Egyptian vessels. However, the boat was only found with twelve preserved planks, which in their relative position to the boat form the central section of the vessel. Using the measurements and position of the planks, along with the dimensions of its pit, a theatrical representation of the boat's dimensions was produced. With the comparisons to other Early Dynastic boat burial evidence from Abydos and Saqqara, a schematic lines drawing was then rendered to represent the curves and structure of the boat. Hull lines provide a graphic description of the shapes of the hull and the changes exhibited by the hull as the boat dimensions change along its length. The lines provide a hypothesis to the reconstruction that can then be extrapolated into 2D and 3D images. With uniformity in the fundamentals of lines drawings, the Abu Rawash ship lines can then be compared to the lines produced for the Khufu, Dashur, and Punt boats to view the development of the Egyptian boat building tradition over time.

Using Photogrammetry to Help Solve Ancient Riddles at the Karnak Temple

Mark D. Janzen[1,2], Terrence J. Nichols[3,2]
[1]Louisiana College, Pineville, LA, USA. [2]Lanier Center of Archaeology, Nashville, TN, USA. [3]Lipscomb University, Nashville, TN, USA

In contemporary archaeology, photogrammetry is a new medium used as a tool to demonstrate finds and features and to produce plans of a site. While 3D modeling and photo-orthomosaics remain the popular uses of photogrammetry, these creations are by-products of the original purpose of the program. Photogrammetry, properly, is the science of making accurate measurements from photographs, using the wavelength of light. In turning to archaeology, photogrammetry can be used to measure the depth of inscriptions and reliefs in lieu of the actual monument. In the work at the western exterior wall of the *Cour de la Cachette* outside the Great Hypostyle Hall at the Temple of Karnak in Luxor, Egypt, questions of the pharaonic authorship surround several damaged and usurped cartouches present on the north end of the wall. Scholars debate the number of usurpations in the cartouches, which leads to questions regarding the authorship of the wall. A specific application of photogrammetry can help to determine the number of usurpations by measuring and comparing the depth of the inscriptions. Photogrammetry was used to measure the depths of the cartouches to determine that they are not deep enough to have been usurped multiple times in comparison to other inscriptions in the same space.

Quantifying Death: The Work Done and Made Possible by Creating a Database for the Fag el-Gamous Cemetery

Kerry Muhlestein
Brigham Young University, Provo, UT, USA

Brigham Young University (BYU) has excavated at the Fag el-Gamous cemetery and Seila Pyramid for over thirty years. During this time, they have amassed a tremendous amount of data about burials. Using this treasure trove of data for themselves, and making it available for others, requires the creation of a database. For years the BYU Egypt Excavation Team has been entering data from field books and forms into an Arc GIS system that creates a 3D model of the burials and allows for analysis of the correlation of certain burial traits. The process has been useful, has yielded good results, and has been slow.

This year the excavation team partnered with the Information Systems Department in the Marriott School of Business. This partnership has allowed for the synergy of two necessary types of expertise to move the database forward in a meaningful way. It has also allowed for the training of both archaeology and Information Systems students.

This presentation will both demonstrate the capabilities of the database and highlight the benefit of such interdisciplinary cooperation. It will also preview the electronic database publication we hope to soon make publicly available for all researchers.

Identifying Inequities in American Egyptology: Initial Results of the Egyptology State of the Field Project

Anne Austin[1], Stacy Davidson[2], Emily Cole[3], Jessica Johnson[4], Sara Orel[5], Kathleen Sheppard[6], Jason Silvestri[7], Jennifer Thum[8], Julia Troche[9], Clara Wright[10]
[1]University of Missouri-St. Louis, USA. [2]Johnson County Community College, USA. [3]New York University-Abu Dhabi, UAE. [4]University of California-Berkeley, USA. [5]Truman State, USA. [6]Missouri University of Science and Technology, USA. [7]University of California - Berkeley, USA. [8]Harvard University, USA. [9]Missouri State University, USA. [10]Bryn Mawr College, USA

Following the protests against the murder of George Floyd in the summer of 2020, many U.S. academics recognized the urgent need to reform diversity and inclusion in our fields. However, within Egyptology, basic questions still remain unknown: how many Egyptologists are there in the United States? How much representation do different groups have among current Egyptologists? What barriers do underrepresented groups experience, and how do we overcome those to have a more diverse field?

In order to address these questions, we began the Egyptology State of the Field Project. This project includes both survey and interview data aimed at identifying (1) the demographics of the field of Egyptology and the inequities faced by underrepresented populations; (2) roadblocks for graduate students and early career scholars on the Egyptological job market; and (3) experiences with accessibility, professional development, and completion/retention for graduate students and early career scholars.

In February 2021, we launched our project by offering an online, anonymous survey open to all self-identified current and former Egyptologists in the United States. We collected data from over 200 individuals covering demographic, educational, and professional information. In this paper, we present the initial results of the survey by identifying the demographic makeup of U.S. Egyptology in terms of age, race, ethnicity, gender, sexual orientation, and religion. We also present responses to questions about exclusion and discrimination in order to evaluate how to improve diversity and inclusion in our field in the future.

j.nd̠-ḥr≥k 'Protect your face!': Examining Politeness in the Pyramid Texts

Brendan Hainline
University of Chicago, Chicago, IL, USA

The Pyramid Texts are a corpus of Old Egyptian ritual mortuary texts that were inscribed on the walls of the royal burial chambers of the late Fifth and Sixth Dynasties of the Old Kingdom (ca. 2375–2185 B.C.E.). Many of the ritual spells of this corpus are directly addressed to one or more deity, whose assistance was believed to be required for the deceased to safely and successfully reach the afterlife. Remarkably, these texts also include spells that command or even threaten the gods and other supernatural powers. Expressing this in the framework of Politeness Theory, where 'face' refers to the public self-image of an individual, these spells contain face-threatening acts. This talk will demonstrate that, in order to mitigate these face-threatening acts, the spells incorporated a number of politeness strategies to protect the 'face' of the gods. Additionally, the politeness of these strategies will be highlighted by comparing spells addressing deities to other spells where there was no concern for the addressee's face and therefore face-threatening acts did not need to be redressed—specifically, spells warding off snakes and other harmful creatures. This talk will thereby demonstrate ways that Politeness Theory can reveal pragmatic information in ancient texts and help us to understand how ritual utterances were crafted to facilitate positive and productive interactions between the ancient Egyptians and their deities.

The Banquet Stele of Ashurnasirpal II, Material Duration, and the Experience of Temporality

Avary R. Taylor
Johns Hopkins University, Baltimore, MD, USA

The so-called Banquet Stele of Ashurnasirpal II is often studied for its inscription, which concludes with a detailed account of the multi-day celebration that took place during the Northwest Palace's inauguration. The emphasis on the inscription has led to two related outcomes: first, the text is dissociated from the object; and second, a "*past*"event—the banquet—is privileged over the ongoing, every day "*present*"of the palace. The Stele's polychronic nature and prominent location in Room EA ensured its continuous engagement with the palace's inhabitants immediately after and beyond the events commemorated, as well as beyond the reign of Ashurnasirpal. This paper explores how the specificity of the text, the iconicity of the image, the material assertiveness of the stone, and the vibrant archaeological context of the Banquet Stele opened negotiations for the banquet's memory to be contested by human and non-human forces. Ashurnasirpal's iconic representation reveals nothing of the extensive inscription's content, allowing the image to adopt various changing meanings through time. I argue that the iconic nature of the king's image shifts agency away from Ashurnasirpal as time progressed. The image is almost identical to the iconic images used by later Assyrian kings. As time passed beyond the reign of Ashurnasirpal, the stele's image hid the figure's true identity, thus steadily obscuring that it was Ashurnasirpal depicted on the very monument that extensively details and promotes his actions as king.

Who's that Girl?: An Investigation into the Woman in Pahery's Winemaking Scene

Morgan E. Moroney
Johns Hopkins University, Baltimore, MD, USA

In the tomb of Pahery at el-Kab an unlabeled woman stands beneath an arbor collecting grapes from the vines. Two men kneel on either side, also harvesting. Winemaking is not an infrequent theme in Egyptian elite tomb scenes—there are about 96 known examples dating from the Old Kingdom through the Late Period. However, this portrayal of a woman participating in the manufacturing of wine is unusual. She might simply be a fellow worker or a remarkable artistic choice, but her singular place suggests something further. We might credit her presence as an expression of the matrilineal ties emphasized in Pahery's tomb. Within this tomb's context, and moving beyond, she might also highlight mythical and ritual significance subtly expressed, but not yet fully explored, in early New Kingdom winemaking scenes. Wine offering and winemaking scenes have been connected with Osiris, Hathor, Renenutet, Shezmu, and the concepts of abundance and rebirth. This paper examines how associations between Hathor, other deities, and winemaking scenes in the early 18th Dynasty are expressed through iconographic and stylistic changes in winemaking scene types. By comparing Pahery's winemaking depiction with earlier and contemporary scenes and other wine-related imagery, particularly marsh bowls, the meaning of these scenes is expanded to incorporate associations with Hathoric myths and festivals and funerary rituals. The development and changes in the style and iconography of winemaking scenes are, too, connected with the increase in Hathoric worship and festivals, and greater political and religious changes in the early 18th Dynasty.

Rethinking the Other: Procession Scenes in the Royal Palace at Khorsabad

Bianca Hand
Johns Hopkins University, Baltimore, MD, USA

Scholarship on Neo-Assyrian art has often focused on comparing the "other" to images of Assyrians, typically with the assumption that they exist in a relationship of subordination to the dominant power. This paper actively pushes against the assumption that the ideology of the Neo-Assyrian empire was inherently successful simply because it was present. Through the lens of postcolonial theory, this paper explores the proliferation of procession scenes consisting of the figural other, or figures iconographically distinct from royal, elite male Assyrians, in the royal palace at Khorsabad. The scenes consist of multiple, identically dressed non-Assyrian men carrying a standardized set of objects, which include bowls, crowns that resemble city walls, and full sacks carried over the shoulder, as they process towards the king and crown prince. These men are identified iconographically as non-Assyrian by their short beards and hair as well as their headgear, which differs considerably from depictions of Assyrians. The inclusion of a multitude of procession scenes in the royal palace is often overlooked because of their apparent uniformity and lack of narrative content. However, I argue that the standardization and repetition of these figures belies an interpretation of subordination. Instead, their almost integral presence in the relief program of the royal palace suggests that these figures, and the objects they carry, hold considerable power in sustaining the Neo-Assyrian empire.

The Earliest Dynastic Portrait: An Ivory Dwarf in the Ashmolean (AN 1896-1908.E.298)

Paul Dambowic
Pratt Institute, Brooklyn, NY, USA

The history of Egyptian art includes a lineage of portraiture beginning in the Early Dynastic period and continuing until the Roman period with its hundreds of surviving mummy portraits from Fayum. This study of a female dwarf in ivory, in the Ashmolean Museum, yields evidence that this small figurine may indeed be the oldest surviving representation of an individual portrait from Egypt. The figure itself displays an elite status (despite its bowed legs and stunted growth)—with coiffure, skirt, poise, and stance that demands respect. It is in the details of the face, however, that the attempt at individual portraiture is apparent. The modeling of the visage shows deep-set eyes below heavy brows, and high cheekbones framing nostrils and a mouth in the course of inhalation. One side of the lower lip turns down, and none of the pairs of facial features (eyes, nostrils, brows, cheeks, cheekbones, lips) is exactly symmetrical. This is a living, breathing portrait of an elite woman, who may have commissioned her own portrait. The early development of portraiture five thousand years ago was dependent on a consideration of the anatomical and medical details of this subject. The fact that she was a dwarf was not coincidental, but an essential theme in the history of Egyptian archaeology. This study connects this and other Early Dynastic examples with later instances of the depiction of anatomical, medical, and surgical details in the development of the art of Egyptian portraiture.

Pharaoh as Warrior: A Study of the Smiting Scenes of Ramesses II from Beit el-Wali

Kenton F. Williams
Trinity Evangelical Divinity School, USA

One of the most significant and enduring images of the pharaoh is his display of power and pre-eminence as a warrior smiting his enemies. Numerous such scenes can be found adorning various temples and monuments of ancient Egypt. This paper discusses in particular the smiting scenes of Ramesses II at Beit el-Wali. Scenes will be examined both in terms of their ideological content, as well as stylistically compared to other New Kingdom counterparts.

SESSION: 1D. Hellenistic Galilee: Between Phoenicia and the Hasmonean Kingdom

Hellenistic Galilee, between Tyre and Jerusalem

Andrea M. Berlin
Boston University, Boston, MA, USA

From the 5th through the 2nd centuries B.C.E., Tyrians and Judeans both considered Galilee their territory. For Tyrians, authority was derived from royal land allotments by the Achaemenids and jurisdiction under the Seleucids. For Judeans, biblical narrative conferred a sense of ownership. In these years, disagreement did not lead to hostility; Tyrians chose not to use the region as a launch pad to expand, and Judeans were too politically weak to assert a claim. This changed in the mid-2nd century B.C.E., when Demetrios II and Tryphon each sought an alliance with the Hasmonean leaders, Jonathan and Simon. Archaeological discoveries, placed in dialogue with a rendition of events in 1 Macc, reveal a history more emotionally charged than either type of evidence alone reflects. In the later 140s B.C.E., scores of sites were deserted—although the author of 1 Macc describes only a single battle between Jonathan and Demetrios at Kedesh. In so doing he created a Joshua-like persona for Jonathan and linked Hasmonean territorial interest in Galilee to the Israelite conquest narrative, transforming felt geographic destiny into history. The result was a renewed Judean claim to Galile—a claim that may have helped inspire Judean migration northwards in the later 2nd and 1st centuries B.C.E.

Cosmopolitan Walls: Fragments of Hellenistic 'Masonry' Style from Tel Kedesh, Israel

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Walls clad with plaster molded and painted to resemble masonry once decorated select rooms in a Hellenistic-era administrative center at Tel Kedesh, Israel. Pigments used to color the plaster range from typical reds, yellows, whites, and blacks to the more rarefied blue. Artists sculpted and painted the plaster to create large, geometric "courses" of drafted masonry, lozenge shapes, and even sections of multicolored marble "breccia." The presence of this colorful, three-dimensional wall treatment at Kedesh confirms local tastes for a cosmopolitan interior style that is preserved elsewhere at Tel Anfa and Masada. Like the imitation masonry found at these sites, the fragments from Kedesh were no doubt once a complete wall décor, which is known today as "Masonry" or "First" Style. Thus, the frescoes from Kedesh demonstrate the remarkable consistency of the Style and its motifs, particularly brecciate marble. In a local context, the frescoes also speak to the skilled craftsmanship of artists and the desire for expensive decor in specific rooms of the administrative center. In this presentation, I will discuss ongoing research on the frescoes—including their style, technique, and possible reconstructions.

The Hellenistic Galilee Project

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Historical sources regarding Hellenistic-period Galilee are few and ambiguous and do not provide a clear picture of the ethnic identity of its population. Also, our archaeological information on this period is meager and comes mainly from sites on the boarders of Galilee. In the early 1st century B.C.E., at the latest, Galilee was already part of the Hasmonean kingdom. However, the sources fail to inform us how and when this happened and how the region became densely settled by Jews.

The Hellenistic Galilee Project of the Institute of Archaeology at the Hebrew University was initiated in an attempt to shed light on these questions through an investigation of the material culture and settlement dynamics in Hellenistic-period Galilee. This lecture will explore new data from an archaeological survey and the recent, large excavation of the key site of Khirbet el-'Eika. The material culture of the site points to close ties with the Phoenician coast. The site was destroyed and abandoned around the mid-2nd century B.C.E., and the survey results pointed to other sites across Galilee that were harmed or abandoned in the same period. These data shed light on the identity of the local population of the Galilee during the Hellenistic period and the background of the Hasmonean takeover of the region.

Household Archeology in Khirbet el-'Eika: A Window to Hellenistic Galilee

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Khirbet el-'Eika was settled for a short period of time and destroyed and abandoned around the mid-2nd century B.C.E. Throughout most of the site, only one occupation layer was identified. A rich assemblage of artifacts was unearthed at the site, mainly of ceramic vessels and metal implements—many of which were found in situ on floors of structures.

In this lecture, using methods of Household Archeology and spatial analysis, we present the site of Khirbet el-'Eika as a socioeconomic unit. The distribution of the artifacts throughout the different architectural units enables us to identify spaces in which different activities took place, as well as the occupants' interaction with their immediate and farther removed surroundings.

The analysis sheds light not only on the occupants' life at the site but also on agricultural activities that took place in its surroundings and on commercial ties with farther away sites and regions.

Hellenistic Period Fortifications in the Galilee: Ḥorvat Tefen as a Case-Study

Roi Sabar
Hebrew University, Israel

This paper presents new research focusing on Hellenistic-period fortifications in Galilee. The history of the region during the Hellenistic period is far from being clear, and thus, archaeological data should be carefully examined. Previous archaeological works revealed several fortifications dating to the Hellenistic period in the region. A regional study of these sites has the potential of shedding new light on the

history of Galilee during the Hellenistic period—particularly on constitutive events.

The study includes several sites—most of which were previously surveyed (though only a few were excavated). The sites are usually situated on prominent hilltops, controlling topographical passageways. The remains comprise of different layouts, sizes, building techniques, and architectural components. Different approaches were raised to interpret some of the sites, usually based on meager finds.

Ḥorvat Tefen was chosen as a key site for our study. The site was never excavated, however, several surveys conducted at the site in the past yielded intriguing finds and theories about the history and functionality of the site. The primary aim of our excavation at Ḥorvat Tefen was to provide substantial data to securely date its foundation and occupation.

The finds allow us to date the fortress at Ḥorvat Tefen as a short-lived, Late Hellenistic initiative. The unequivocal numismatic find suggesting it was built by Alexander Jannaeus—the Hasmonean king—in the last decade of his reign (ca. 85–76 B.C.E.). The finds enable a unique glance into the material culture of the Hasmoneans in Galilee.

SESSION: 1E. Archaeology of Islamic Society I

Reoccupation Patterns in Middle Islamic Tall Hisban: Some Preliminary Results

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This paper aims to illustrate some preliminary results of the study of reoccupation and reuse patterns at Tall Hisban, Jordan. Recent investigations on the western slope of the site (Field O) unearthed a series of clustered structures. One of the main goals became to understand the spatial organization and extension of the complex and to reconstruct its chronological development.

The diachronic evolution of the built environment is one core issue that the investigations at Tall Hisban are pursuing to elucidate. More precisely, a privileged focus is given to the study of the different ways in which reoccupation of earlier structures can be attested at the site and in its hinterland. The topic of reoccupation has been dealt with in other chronological and geographical contexts—for instance, Late Antique Rome—but a proper, systematic archaeological study is still missing in the Islamic Middle East. Tall Hisban, in light of its long-enduring occupation, offers a particularly rich and valid case study to begin understanding reoccupation patterns and the large variability of strategies. The first important element to consider is the impact the new architecture had on earlier structures in the development of the built environment in a certain phase of occupation—in this specific case, the Middle Islamic village.

This type of analysis is crucial to understand not only the architectural history of the site but also aspects directly related to the society of the local communities—among which are socioeconomic resilience strategies, know-how and technological knowledge, and patronage.

The Rural Revival of Late Medieval Syria: A Case of Migration and Return?

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The resettlement of long-abandoned sites across Bilād al-Shām is one of the most important demographic phenomena of the 13th century A.D. In general, the walls of houses still stood as well as cisterns and reservoirs—though not maintained for centuries. Reoccupation of these ruins was not gradual: it happened suddenly and involved what appear to have been several family units. Roofs were repaired, cisterns cleaned out and replastered, fields once again cultivated, and agricultural terraces built to expand cultivation and control water runoff. The functions of these buildings often changed—with church ruins and other public buildings repurposed as workshops or cemeteries, non-domestic structures reused as farmhouses, and entire neighborhoods converted to gardens. While archaeologists in Jordan, Israel, and Palestine have been documenting this phenomenon for the last decade or so, the reasons for these resettlements have not been explained.

This paper investigates the "return migration" of the early Mamluk period through three means: the stratigraphic investigation of a cluster of farmhouses of the period at Tall Hisban (pulling on the cumulative results of several seasons of recent excavations and in comparison to other sites excavated by the author), a GIS-based study of site types and their distributions across southern Syria, and a historical survey of the political and economic contexts of this migration (pulled from largely unpublished documents related to land sales and property disputes). The ultimate goal is to distinguish between two possible scenarios—resettlement as a result of organic growth under strong economic conditions and state-orchestrated resettlement.

"Shahada Islam"? Material Approach to Religious Transformation in Sudan

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At around 1364 C.E., Dongola, once the capital city of the kingdom of Makuria, witnessed its abandonment by the royal court and migrations of Islamic Arab tribes in the same century. There is scarce historical data on the next two hundred years. Yet, at the beginning of the 16th century, Dongola became an independent, thriving city-state suspended between two major regional powers: the Ottomans in the north and Funj Sultanate in the south.

The focal point of the analyses is urban space and households. The presentation breaks away from the practice of archaeology of the elites, which dominates research on Nile Valley cultures. It builds not on the changes at the elite level, which are usually quick but often superficial, but on the household level, which indicates the social extent, depth, and intensity of transition. It discusses if and how the urban layout and households mirror religious changes in the community: the survival of Christian traditions and the encroachment of Islam between 14th and 19th century.

New Evidence for Cultural Transition from Byzantine *Zoara* to Islamic *Zughar* in Ghor as-Safi, Jordan

Konstantinos D. Politis
Ionio University, Greece

Zoara/Zughar (modern *Ghor as-Safi* in Jordan), situated on the south-eastern Dead Sea littoral in the soil-rich and well-watered alluvial fan of the biblical *Zared* River (modern *Wadi al-Hasa*).

During the early Byzantine-Christian period (4th - 7th centuries A.D.) it was the Seat of a Bishop in *Palaestina Tertia* represented at Nicaean Councils and was known from Roman and Byzantine sources as an important commercial metropolis based on agricultural products such as wheat, dates and balsam. It also was said to exploit local sources of copper ore, salt, bitumen and sulphur. The city is accurately located on the 6th century A.D. mosaic floor map in Madaba (in modern Jordan), in Al-Idris's A.D. 1154 'map of the world', on the 13th century *Tabula Peutingeriana* and mentioned prominently in other ancient and medieval texts.

Zoara/Zughar's vibrant agricultural base continued during the Abbasid and Ayyubid/Mamluk periods (9th – 14th centuries A.D.) in *Bilad ash-Sham* when new products were introduced from central Asia (particularly India) such as cotton, indigo, sorghum and most-importantly, sugarcane. During this period, new farming practices were also introduced into the region, such as improved irrigation systems and trimestral crop rotation, augmenting agricultural productivity. New animals were imported, such as Zebu cattle to till the fields.

From 1997 to 2019 intensive archaeological surveys and systematic excavations were conducted in the Ghor as-Safi, bringing to light many significant discoveries and through interdisciplinary research verified Zoara/Zughar was an important commercial hub during Byzantine and Islamic times.

SESSION: 1F. Archaeology, Community, and Mentorship: Celebrating the Legacy of Bert and Sally de Vries

Umm al-Jimal's *Castellum*: The Civilian Transformation of a Military Space

Elizabeth Osinga
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Although the *castellum* was excavated in the early 1980s under the direction of Bert de Vries, only preliminary findings were published in subsequent decades. Yet the impact of military presence on a rural community, especially from a social perspective, has peppered Bert de Vries' research over the years. This interest, along with the general paucity of Roman fort publications in the region, spurred the re-investigation of the copious records, photographs, memories, and saved pottery from the *castellum* excavations in order to prepare the material for publication.

The story of the *castellum* turned out to be less about its military history and much more about its transformation, particularly in the Late Byzantine period. Excavations did confirm a construction date in the late 2nd/early 3rd century A.D., and helped to detail some of its original architecture in contrast to later changes; however, the most abundant and interesting evidence was found in barrack blocks where several large bread ovens were unearthed (along with dense dumps). The unusually large and diverse ceramic remnants found in association with these dumps are testament to one of the most elusive economic establishments: the rural marketplace.

Impact of Enhanced Tourism at the Umm el-Jimal Archaeological Site on the Socio-Economic Development of the Local Community

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Since 2014, Umm el-Jimal, the new 2021 Jordanian World Heritage List candidate, has undergone tourism enhancement and site development projects, led by Dr. Bert DeVries and the Umm el-Jimal Archaeological Project. An important example is the Water Project that continues work to preserve and reactivate the site's ancient water delivery and storage system.

This research, derived from the author's MA thesis and initiated to support community archaeology initiatives, documented different types of development projects at Umm el-Jimal and analyzed the residents' responses to these changes over time through a two-stage questionnaire survey in 2017 and 2019. Moreover, it is distinguished from previous studies as it highlights residents' attachment and awareness, and analyzes the socio-economic impacts of the early stages of tourism enhancement and development. This study demonstrates that the reactions and evaluations of residents' attitudes and perceptions must be considered by decision-makers and professionals when moving forward with tourism development. A mixed methodology of quantitative and qualitative methods was used, including a survey taken by Umm el-Jimal residents and field observations over 24 months. Results were analyzed through the Statistical Package for the Social Sciences (SPSS) software version 20 using the paired sample T-test and descriptive analysis. This paper presents these results in detail and shows that tourism enhancement has benefited Umm el-Jimal's residents in both social and economic dimensions. However, it is vital to track tourism enhancement, development, residents' responses, and needs over time in order to maximize benefits and minimize negative outcomes on the local community.

A Paradigm for Local Ecclesiastical Architecture in Jordan: Comparative Study of Three Churches at Umm el-Jimal

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This paper presents the results of the author's MA thesis, which explored the architecture of churches at Umm el-Jimal by focusing in detail on three case-studies: the West Church, a freestanding building, and the Julianos and Southwest Churches—both built into existing domestic complexes, though only the latter is accessible from the public streets. This research, part of a larger Churches Project directed by Bert de Vries and the Umm el-Jimal Project team, aims to study the site's sixteen churches archaeologically, architecturally, liturgically, and, perhaps most importantly, through a social lens.

After extensive literary and archaeological review, including personal site visits to measure and document the churches, detailed architectural content was presented for each church—with architectural drawings of walls, floors, and other details, such as lintels and inscriptions. New, accurate plans of the churches were also produced, along with three-dimensional drawings of the current state of the churches in 2019, which can be used to assess changes over time. A key research interest was to explore the original state of the churches, particularly the roofing methods, as these were not preserved. Taking into account regional parallels and archaeological evidence, three-dimensional renderings were produced to show the methods and materials that would have been used to roof the

structures. Detailed renderings of the original state of the churches show the architectural details lost to time.

This research produced an integrated comprehensive architectural framework that may be used in future studies as the Churches Project expands.

Mapping Umm al-Jimal, from the Princeton Expedition to the Present
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In 1905, Howard Crosby Butler and the Princeton University Archaeological Expedition to Syria visited Umm al-Jimal, producing the first substantial plan of this ancient town's surviving ruins. More than 60 years later, Bert de Vries established the Umm el-Jimal Archaeological Project and began a systematic survey and targeted stratigraphic excavation, adding more than 110 buildings to the known plan for the main site and expanding knowledge of Nabataean and Early Roman use of areas outside the Late Antique town walls. The basic plan has, thus, been known since the 1970s, with incremental changes deriving from subsequent periodic fieldwork. This paper presents a narrative of how the site's plan has developed over the past 120 years, focusing on particular researchers and their methods, the knowledge acquired via these methods, and new insights being gained from current digital mapping efforts and remote sensing data analysis.

SESSION: 2B. Archaeology of Egypt II

Towards a Theory of Egypt's God-Kings Chronology

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Ancient Egypt's only known multi-dynasty chronologies, the Turin Canon of Kings (ca. 12th century B.C.E.) and Manetho's *Aegyptiaca* (ca. 3rd century B.C.E.), indicate that the 1st Dynasty was preceded by a long list of god-kings with assigned lengths of reign. Unfortunately, the Turin Canon papyrus is badly damaged in this section. Many of the god names and lengths of reign are either damaged or missing. As to Manetho, his original text is lost and what we know about this chronology has survived in wildly inconsistent versions preserved by a few Christian scribes several centuries later. These scholars took great liberties with Manetho's chronology, though they do explain why they made many changes to what Manetho wrote.

This paper introduces the theory that behind these two chronological texts stands a systematic unfolding of the Theban Creation theology with lengths of reign based on solar, lunar, and stellar cycles and that this data can be recovered by tracking error patterns in the Manetho sources. As an introduction to the thesis, this paper will focus on the Manetho texts and (1) outline several arithmetic errors made by the scribes who passed on the manuscripts, (2) demonstrate several interpretive errors by the redactors which led to erroneous data being used in the various Manetho sources, and (3) offer one major new insight as to what the redactors misunderstood, which—when placed in context—will provide the key to unlocking the chronological and sequential arrays and explain the various inconsistencies in the Manetho sources.

Animal Butchery Technologies and Social Complexity in Old Kingdom Egypt

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This study examines the role of metallurgy in complex societies through the lens of Old Kingdom Egypt. Most knowledge of the spread and adoption of copper-based metallurgy for daily life (quotidian) activities has been long dependent on the survival of odd pieces of bronze or copper metal objects—usually associated with mortuary remains—in the archaeological record. It is therefore unwise to rely the presence or absence of metal objects to understand the transition from stone to metal-based technology for daily life activities. As a result, other means of investigation need to be adopted. In the neighboring southern Levant, we utilized microscopic butchering marks on bones to determine if copper-based metallurgy was used for quotidian activities. The results suggested that copper-based metal only became widely used beginning in the Middle Bronze Age. Here, we present recently collected zooarchaeological data to investigate whether such metal was readily available to everyone or only to the elite class of society of Old Kingdom Egypt. This is explored by the examination of animal butchery marks from the Old Kingdom site of Giza.

Ideology vs Reality: Social Class in Egyptian-Nubian Relations from the Middle Kingdom through the Second Intermediate Period

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A longstanding assumption in the field is Egypt's largely xenophobic relations to its neighbors, particularly with Nubians to the south. Whereas scholarship has discussed royal Egyptian written sources about Nubia and the integration of certain Nubian individuals in the Egyptian official bureaucracy, the interactions of non-elite Egyptians and Nubians has received less attention. This work examines Middle Kingdom and Second Intermediate Period Egyptian-Nubian relations among different social classes, using both textual and archaeological data. Some central questions include—how everyday interactions compared or contrasted with royal ideology and why, and what were the dynamics between immigrants, military, and colonizers and the local populations. Notably, some of the material culture of fertility and birth, such as beds and nude female figurines, exhibited a cultural connection between non-elite Egyptians and Nubians. The data thus indicate more co-equal cultural interaction and mixture among regular Egyptians and Nubians than the official ideology would suggest.

The Emergence of Egypt's Southern City: Preliminary New Kingdom Findings in the Mut Precinct

Michael R. Tritsch
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Continuing work initiated by Elaine Sullivan in 2005, this paper explores the archaeological excavation of Violaine Chauvet, located in the rear of the Precinct to the Temple of Mut in Luxor (ancient Thebes), Egypt, from 2018 to 2020. The Johns Hopkins University Expedition unearthed New Kingdom domestic material, preliminarily dated to the first half of the 18th Dynasty. The findings included a considerable number of articulated, mainly red-painted, mud brick features in close proximity to two column bases and a stone feature consisting of pavers and a standing sandstone architectural element with a cavetto cornice and torus roll. Originally interpreted as a small neighborhood chapel, the nature of this domestic environment has been revised based on new findings—more closely relating it to "reception rooms" in houses at Amarna and Deir el-Medina. The sandstone feature bears a striking likeness to a "divan," and the painted mud brick is consistent with niches and altars found in such rooms, where the color red appears almost exclusively on door frames and niches. However, the style of painting at Mut is distinctly unique. These findings provide new insight into domestic life and religion prior to the Amarna period and likely identify a local regional style in domestic architecture, possibly speaking to the representativeness of Deir el-Medina to other New Kingdom habitation sites.

Words of War: A Sociolinguistic Analysis of the Egyptian Military Lexicon of Foreign Origin

Marwan Kilani
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The language of New Kingdom Egypt is characterized by a remarkable number of loanwords. These foreign words cover multiple semantic fields, including weaponry and military practices. The presence of these words is not only linguistically intriguing but can also be historically and socio-historically very informative. Words do not simply move around randomly—rather specific social and cultural mechanisms often shape and define when and how words are

borrowed from one linguistic community to another. Therefore, a careful study of loanwords can reveal important clues about the sociocultural context(s) of their borrowing—thus providing information about the very relations existing between different linguistic communities. The present paper starts from this theoretical consideration by providing a fresh, new sociolinguistic look at the foreign military lexicon attested in the Egyptian language of the New Kingdom to determine when, why, and how Egyptians borrowed these terms. The paper will first provide an overview of the relevant words, focusing on the temporal frame of their attestations, their semantic domains (weapons, practices, titles and functions), and their linguistic background within Egyptian. These data will then be investigated from a sociolinguistic perspective. The final goal is to understand if the borrowing of these words could be correlated with sociocultural phenomena—such as the transfer of knowledge within communities of practice—or even with sociopolitical changes in the Egyptian warfare related with the reorganization of the Egyptian state and of its administrative structures during the transition from the 18th to the 19th Dynasty.

Motion Verbs and Power Balance in Ancient Egyptian Texts
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Repeated motions with shifts in the deictic center (back-and-forth dynamics) have at least two main functions in structuring the narrative: they highlight key-moments of the story and they also make explicit the power balance between the different main protagonists, as well as the evolution of these interactions. Centripetal motion (e.g. *iy.t* "to come") is usually associated with the position of relative inferiority of the protagonists performing the action in respect to the other(s), while centrifugal motion (e.g. *šm* "to go," *h3b* "to send") is a marker of a position of superiority. In texts belonging to the ideological discourse, the power balance is naturally pictured in favor of the Egyptians—receiving respect and submission from the foreign "enemies." However, several counter examples of inverted dynamics can be shown in fictional literary texts (e.g. Wenamun, Sinuhe) as well as in wisdom texts, letters, and miscellanies. The study of motion verb usage in interpersonal interactions thus offers a good complement to the usage of dialogues in shaping the narrative structure.

NB: this study proposes a complement to the one proposed by Jean Winand. They should ideally be considered as a diptych.

SESSION: 2C. The Tell es-Safi/Gath Project after 25 Years I

25 Years at Tell es-Safi/Gath: Where Has this Taken Us?
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In this paper, I will present and overview and assessment of the contributions, insights and methodological and theoretical developments that have come out of the quarter century of the Tell es-Safi/Gath Archaeological Project. In particular, I will discuss how new finds from various periods and cultures have changed our understandings and various issues, how new methods were used during the excavation project, and how new theoretical perspectives were used in the interpretation of the archaeological remains.

Households in the Early Bronze Age at Tell es-Safi/Gath
Shira Albaz
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In this paper, I will present and discuss the Early Bronze Age households from the residential neighborhood at Tell es-Safi/Gath and based on this, discuss the characteristics of the domestic houses of the Early Bronze Age III. This research is part of my doctoral dissertation - 'Everyday Life in a Local Neighborhood at an Ancient Urban Settlement: Tell se-Safi/Gath in the Early Bronze Age as a Case Study', completed in 2019 at Bar-Ilan University, under the supervision of Prof. Aren M. Maeir.

The research field of 'Household Archeology' aims to reveal and understand household activities and remains, in light of various finds that have been exposed, and the nature of distribution in the various activity areas. Here I will present an analysis of the assemblages discovered and their contribution to understanding the nature of the activities (functional analysis) that took place. The results of this functional analysis is then employed in order to deduce various aspects of human activity and the cultural character of the residents of Tell es-Safi/Gath in particular and in the Early Bronze Age III in general.

I will focus on the three phases of E5 (E5a-c), as they represent the most extensively excavated phases dating to the Early Bronze Age III at Tell es-Safi/Gath. The analysis of these finds will aid in understanding the nature of activities in various buildings, and in understanding their cultural context, shedding light on a broader understanding of the character and identity of the local population that lived at the site during this period.

Population Dynamics in the Central and Southern Levant during the 2nd and 1st Millennium BCE: Tell es-Safi and Beyond
Philipp W. Stockhammer[1,2], Michal Feldman[3], Michal Artzy[4], Elisabetta Boaretto[5], Stefanie Eisenmann[2], Marina Faerman[6], Aren M. Maeir[7], Ianir Milevski[8], Michael Schultz[9], Patricia Smith[6], Dmitry Yegorov[8], Choongwon Jeong[10], Johannes Krause[2]
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In the past few years, archaeogenetic analyses have provided first glimpses into population genetic interactions in the Central and Southern Levant during the Bronze Age. Recently, genetic data provided evidence for genetic input from southern Europe during the Early Iron Age, which has been associated with the appearance of the "Philistine" material culture in Ashkelon. However, such dynamics during the 2nd and 1st millennia B.C.E. remain understudied due to poor DNA preservation in the region, resulting in relatively small and sporadic datasets. Larger datasets are needed to more fully capture the complexity of human interactions and mobility during this time. Now, we have generated a large dataset of ancient human genomes from the Middle Bronze Age to Iron Age Levant. Among other, we present new data for the Early Iron Age Southern Levant with 19 individuals from Tell es-Safi/Gath and Tel Erani. Through the analysis of this new dataset, together with the previously published Early Iron Age genomic data from Ashkelon, as well as with other contemporaneous genomes, we are now able to present a better understanding of the

demographic events coinciding with the appearance of the "Philistine" material culture.

Ancient Environment and Human Interaction: Interdisciplinary Research - Tell es Safi/Gath
Oren Ackermann
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An archaeological site is an integral part of its surrounding landscape. This is one of the main novel interdisciplinary approaches in the long-term environmental geoarchaeological project at Tell es Safi/Gath (1999 - 2017). The site has interacted with its surrounding for more than 6,000 years. In this site, the surrounding landscape units have been studied, providing important information regarding the ancient landscape, and interactions between climate, the environment, and humans.

Among the effects of the environment on the site, it can be seen that the location of the tell, and even its name, were determined by its environmental conditions, topography, and water availability. Human influence in the past also left its mark on the landscape of today, as seen by the vegetation distribution, for example, of Sarcopoterium spinosum (thorny burnet).

The results obtained regarding the human impact on erosion processes revealed that when the site was occupied, erosion processes were limited. After the site's destruction, erosion and fill processes increased significantly. It seems, therefore, that the effect of human activity on erosion is higher in the period following site abandonment; when the site is occupied, erosion is minimal, perhaps as a result of human soil preservation activities.

The environs adjacent to the site are an excellent archive of natural and human environmental history. As the environmental records are the result of complex processes during a long period, interdisciplinary research is essential in order to decipher its sequence, as revealed in the project of Tell es Safi/Gath.

SESSION: 2E. New Directions in the Historical Geography of the Ancient Near East

The Eastern Border between Manasseh and Ephraim and a New Identification of Khirbet el-Marjame
Shay Bar
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Josh 16:6-7 describes the eastern border between Ephraim and Manasseh: "And the border went out toward the sea to Michmethah on the north side; And the border went about eastward unto Taanath Shiloh, and passed by it on the east to Janohah; And it went down from Janohah to Ataroth, and to Naarath, and came to Jericho, and went out at Jordan."

Scholars have attempted to identify the places mentioned (Taanath Shiloh, Janohah, Ataroth, and Naarath). These proposals were mainly based on available cartographical and textual evidence, while the geographical, and especially the archaeological data were based on limited sources.

Reevaluating the published archaeological data and a better understanding of the topography of the region allows for a critical assessment of earlier identifications and a new proposal for this boundary. This proposal suggests that the eastern route of this boundary parallels the main geological features of the region. The easternmost location is Khirbet Tana el-Foqa (Taanath Shiloh), located

at the northeastern foot of the dominant Elevation Point 868 ridge. From there, the border turns east-south-east along the foot of the southern extension of this ridge, east of Khirbet Yanun (Janohah), and continues south along the foot to Khirbet el-Marjame (Ataroth—a new identification for this important Iron Age II fortified city). It then runs southeast—following the steep Wadi 'Aujah canyon—to Khirbet 'Aujah el-Foqa (Naarath) and continues southeast to Jericho.

Bethlehem and Netophah in Benjamin and the Purport of the List of Returnees (Ez 2:2–35; Neh 7:25–38)
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The list of returnees, which appears twice in the book of Ezra and Nehemiah, has been dealt with by many past scholars. Some have perceived this list as describing historical realities of immigration into Judah during the Persian period, of the boundaries of the province of Yehud, or of Hasmonean period settlement. Others saw it as a combination of various lists, which were gathered by the redactors for literary and ideological purposes.

The majority of the toponyms that are mentioned in this list are located inside the traditional Benjaminite inheritance. Exceptional sites are Bethlehem, Netophah, Lod, Hadid, and Ono—all of which have been identified out of Benjamin.

In this paper, we suggest identifying Bethlehem and Netophah, from this list, at two sites within the western part of Benjamin—both of which were apparently settled during the Persian period. Moreover, we argue that the list of returnees, even if it consists of different lists, reflects settlement processes that occurred in this region during the early Persian period. Although most of the rural sites north and east of Jerusalem ceased to exist following the Babylonian destruction of the city, many sites remained intact during the Persian period—a time when many additional new sites were erected in the western parts of Benjamin and along the main road going towards Lydia. It seems that this expansion westward, together with some wishful geographical aspirations, inspired the redactors to insert Bethlehem and Netophah and to also include Lod, Hadid, and Ono in the description of the Benjaminite settlement.

A Tale of Two Swords in the Book of Samuel: The Geography of the Demise of David's Enemies
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For millennia, readers of the Book of Samuel have been drawn to the narrative of David's dramatic rise to the throne of Israel (1 Samuel 16–2 Samuel 5). This paper will suggest a new geographical interpretation, which may provide a key interpretive clue for understanding the literary framework that the author/editor of Samuel employed in conveying David's eventual triumph over his foreign and (un)friendly foes. Without giving too much away, I will question traditional geographical understandings of 1 Samuel 31 in light of the interpretation of the early excavations (Fisher, Rowe, and Fitzgerald) of Beth-shean. I will also discuss a possible connection between the narrative and the recently discovered (massive) early Iron Age fortifications at Philistine Gath (Tell es-Safi). The conclusions of this paper will not impact ongoing archaeological and historical questions concerning the historicity of David's "kingdom." However, they will demonstrate the importance of re-examining previous syntheses between archaeology and the biblical text, as well as the need to

incorporate new archaeological discoveries into well-known ancient dramas.

Visualizing the Tomb of The Royal Steward: The Preliminary Results of The Mount of Olives Funerary Monuments Digital Survey

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The Mount of Olives Funerary Monuments Digital Survey was organized at the University of Maryland to study a small group of monolithic tombs in Jerusalem's Silwan Necropolis that date to the late-Iron Age. This group includes the Tomb of the Royal Steward. In 1871, Charles Clermont-Ganneau removed two inscriptions from this tomb, one of which is the Royal Steward Inscription, acquiring them on behalf of the British Museum where they now reside. The virtual project at UMD has begun the process of reconstructing the tomb and reuniting the inscriptions with the tomb, virtually, through digital modeling. The reconstruction effort covers three monolithic tombs, including both the Tomb of the Royal Steward and the so-called Tomb of Pharaoh's Daughter, as well as their topographical setting on the Mount of Olives. The project does not involve field work, but is based on published plans, unpublished archival materials, and museum artifacts. The models created through this project will allow scholars to visualize the tombs and their inscriptions set within a landscape and unencumbered by urban development. This paper will present the preliminary results of our work, beginning with the analysis of maps and historic photographs, and including the models created through this initiative.

WORKSHOP: 2F. New Realities? A Critical Approach to Recreating Objects for Examining and Presenting the Past

Reproducing the Past in Multiples: Shaping Past and Present Narratives

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In this session, we reflect on reproduction as a way of thinking about how people have engaged with materials and artifacts across time— yet, in many respects, this is not a new consideration. In 1901, Sir Arthur Evans, while excavating the site of the Palace at Knossos on Crete, found fragments of a faience figurine—of which only the torso and upper hips were preserved. The raised right hand of the figurine appeared to hold a bit of cord. Twenty-five years later, in the wake of significant restorations, the fragment emerged as the snake-wielding votary of Evans's Snake Goddess from the Temple repositories. Though only designated as a votary, the figure has quickly superseded the Goddess in power and prevalence and has become one of a half dozen iconic images for the Bronze Age culture of Crete, the so-called Minoans. Replicated in a broad array of media, including Barbie Dolls and earrings, the figure even made an appearance at the opening ceremonies of the Olympic Games in Athens and is a foundational icon for various iterations of the goddess movement—such as the Ariadne Institute. She has become the Snake Goddess in the popular imagination. The journey of this fragment calls us to reflect on the power of recreations to recast the past in both trivial and politically significant ways. The figurine was deployed not only to comment on a particular narrative of Minoan religion but was a device in tying Crete, through Athens, as the foundation of western civilization.

Babylon's domination over Southern Babylonia during the 18th century B.C.

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In 1763 BC, the troops of Hammu-rabi, king of Babylon (1792-1750 BC) conquered the kingdom of Larsa in southern Mesopotamia. A new provincial administration has been established in this land, henceforth called Yamutbal, with Babylonian dignitaries among high officials. The provincial administrative structure is well documented by the letters written by Hammu-rabi and his ministers to Sin-iddinam, the governor of the province, and to Šamaš-hazir, the manager of the crown lands in the Larsa area. These documents demonstrate the total control exercised by the Palace of Babylon with regards to the management of the human and natural resources of the Yamutbal province.

Has Babylon's control over Southern Babylonia been abusive? Some examples witness the exercise of power through violence or excessive palatial control which may have been the cause of the revolts that broke out during the reign of Samsu-iluna (1749-1712 BC). In addition, the question arises as to whether intensive exploitation of agricultural land caused salinisation of the soil and disruption of the hydraulic system - and finally the abandonment of the main towns in the region.

Babylon's domination of Southern Babylonia lasted for 25 years, but it may have been the first historical example of excessive control of this region, from which it did not recover for centuries.

Experimental Archaeology: Making a Good Impression

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The role of experimental archaeology can be beneficial in helping to revive crafting practices of the past. It allows for replication, reproduction, and recreation of items in various mediums. This paper will examine a modern cylinder seal impression and trace its history from creation to final product. Because of their small size, their ubiquity at sites, and their relative ease of transportation, cylinder seals are often found on the antiquities market. While some who buy them are collectors, others are tourists who want a piece of the past. Many battling the antiquities market say that education is a big key in stopping the looting. Being able to learn how to create a cylinder seal through experimental archaeology can help foster appreciation for the craft, revive the practice of carving on hard stones/gemstones, bring awareness to the high level of craftsmanship needed to create seals, and train generations of scholars who can study and then pass on the craft.

3D Modelling in Urban, Salvage Archaeology: Pros and Possible Cons?

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Photographic 3D models using Agisoft or other programs have been used to record successive stages of archaeological excavation as well as to document standing historic buildings, among other applications. A 3D model was used to record and, as it turned out, to preserve four connected, subterranean brewery vaults, which were discovered in Williamsburg, Brooklyn by a backhoe operator digging a trench for a planned real estate development. The historical research and archaeological investigation of the site were undertaken as a salvage operation with limited time and resources. The vaults proved to be of great historical significance on several scores: they were the oldest

datable structures of this kind known in New York City, they possessed unique architectural features, and they were part of one of the first breweries in Williamsburg to produce lager beer. In spite of their very sturdy construction and perfect state of preservation, the developer was allowed to fill three of the four vaults with concrete and bury the fourth in the backyard with no provision for access. The creation of the model was not a required component of the archaeological assessment, but it has effectively taken the place of the building—which has been destroyed—and now provides the only way of experiencing and examining the structure three-dimensionally. It may be worth considering whether future salvage excavations that uncover significant architectural remains should be required to document their findings this way. On the other hand, could 3D site modeling be used by developers as an argument for not preserving the actual sites?

The Aura of the Digital Column of Constantine
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As famously formulated in *The Work of Art in The Age of Mechanical Reproduction* by Walter Benjamin, original artworks have an inherent aura that especially represents and emphasizes the importance of material authenticity. Hence, mechanical reproduction skills dramatically cause the loss of such unique, "un-reproducible" qualities. In the context of Benjamin's materiality argument, dating back to 1935, it is even more difficult to redefine a digitally reconstructed object as a legitimate artifact that has values emerging with virtual technologies. Today, cultural criticism has provoked a binary discourse revolving around the originals and the copies—the latter usually perceived as ephemeral, immaterial, and aura-less surrogates. However, this study aims to demonstrate the potential for a re-manifestation of authenticity in architecture through the implementation of contemporary digital technologies of reproduction. This claim has two fronts: 1) the profession of architecture is a cumulative form of knowledge, which has relied on making copies, and 2) architectural reproductions are essential for the original to survive beyond the conditions of its material presence. In order to illustrate the critical role of digital reconstruction technologies in the field of architecture, a 3D model of the 4th-century colossal Column of Constantine from Constantinople/Istanbul will be recreated within its original (today lost) urban cityscape. Thereby, not only the historical layers and meanings will be studied against today's condition, but also several methods to digitize, document, and contextualize architectural objects will be exemplified while presenting and discussing the past.

SESSION: 2G. From Paganism to Christianity: Transformation of Sacred Space in Sepphoris, the Galilee, and Beyond

Religious Communities in Sepphoris Contextualized through Space and Time
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The Christianization of the Galilee did not occur overnight but was an evolving process, beginning in the 4th century C.E. (with the Christianization of the Roman Empire), intensifying in the following centuries, and reaching its peak in the 6th century. While the archaeological evidence for growing Christian presence in the Galilee comes from those sites in which Jesus had his ministry and from other rural areas—villages and small towns throughout the Galilee—little attention has been given to date to the changes occurring in the two major Galilean cities, Tiberias and Sepphoris. The paper will concentrate on cult buildings known to date at Sepphoris—a Roman temple, two churches, and a synagogue—and discuss their implications for the study of the architectural development, social structure, and religious behavior in the late antique city.

Temple, Church and Urban Change in Ancient Sepphoris
Shulamit Miller
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Excavations of an *insula* in the heart of the city center of ancient Sepphoris have revealed continuous occupation from the late 1st through mid-8th centuries C.E. The recently concluded stratigraphic analysis of this insula revealed six consecutive building phases including a Roman temple and a Christian church, in addition to private architecture, commercial activity, and an industrial zone.

This paper presents the architecture of the different phases—discussing the plans, characteristics, and dating of each of the phases. The relations between the temple and church are especially highlighted for a better understanding of the process of transformations of sacred space in the urban center. As a result, insights may be gained into the social, religious, and cultural climates of the city over time.

Inside the Church Walls: Examination of the Liturgical Furniture and Interior Design of the Eastern Church in Sepphoris
Rebecca Eisenstadt
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The eastern church in Sepphoris was built at the end of the 5th/beginning of the 6th century C.E., upon a Roman temple's ruins. An assemblage of marble fragments was discovered in connection with a lime kiln and robbery trenches that covered the church's ruins. These fragments consist of liturgical furniture, as well as architectural installations such as flooring and wall revetments, constituting the interior décor of the church.

The lecture will present the finds and aims to offer a reconstruction of the liturgical furniture and architectural installations used in the eastern church in Sepphoris. The study analyses the fragments with comparison from other churches in the eastern Mediterranean, highlighting differences or unique characteristics and influences evident in the eastern church at Sepphoris.

The reconstruction of the liturgical furniture and architectural installations allows for examining aspects of the community that it served. Both the liturgical space, which is the heart of the religious ritual, and the church's décor function as media through which theological ideas are transferred. Hence, the reconstruction of these two categories is of great significance for our understanding of visual expressions used by the local Christian community of Byzantine Galilee.

Cults of Dagon and Men at Tell Abu Shusha in the Roman Period
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Sporadic digs around the site of Tell Abu Shusha—a medium-sized tell next to Kibbutz Mishmar Ha'emeq in the Jezreel Valley, Israel—indicate that the site should be identified with the Roman polis called

Gaba. That polis was founded in 60 B.C.E. by the Roman governor Lucius Marcius Philippus of Syria and is best known as the site where Herod the Great settled his cavalry veterans (Josephus, *War* 3.35–36; *Ant.* 15.294). In the Byzantine period, the bishops of Gaba appear in the acts of ecumenical councils. Before the Christianization of the region, the site may have been home to two cults of worship of Eastern gods. A Roman-era inscription found at the site mentions a man named Abdagon (servant of Dagon) as the first citizen of the polis. This offers an intriguing indication for the continued worship in the region of Dagon, the old Philistine wheat god. Furthermore, many of the Gaba coins bear the image of the Phrygian lunar god Men, demonstrating that the deity was closely associated with the identity of the city. A new excavation project, directed by Avner Ecker and Benjamin Gordon, was launched at the site in summer 2020 as part of the Jezreel Valley Regional Project. In addition to discussing the significance of the evidence for two cults of worship of Eastern gods at Tell Abu Shusha, we will summarize in this presentation the results of the 2020 season.

Local Cults in Palestina Secunda: The Case of Konon the Galilean Martyr
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Local veneration of saints in Late Antiquity served as symbols of distinct identity, ethnic pride, and local patriotism. This paper examines the veneration of a certain saint, Konon, who's name appears in a dedicatory inscription located on the mosaic floor of a 6th century A.D. private church, in the outskirts of a remote village in Galilee. Out of three martyrs that bore this name, the most suitable to be the Galilean saint is the one who was martyred in the 3rd century A.D. in the town of Magidos in Pamphylia. According to his martyrology, Konon of Magidos confessed during his investigation that he was born in the town of Nazareth in Galilee and that his family is related to Christ.

In the 5th and even the 6th centuries, Christians were still a minority in the eastern Lower Galilee (a territory that was part of the newly established province of Palaestina Secunda), and they needed to contend with Jewish demographic dominance in the region—a reality that drove them to look for local expressions of identity. By applying the concept of scales on the cult of saints in local communities, I stress that recently Christianized Galileans embraced Konon as a venerated saint and, by doing so, they turned him into a symbol of Galilean identity and a token of their local Galilean patriotism.

The Abandonment of Sacred Spaces and the Use of Spolia in Byzantine Reḥovot-in-the-Negev (Israel)
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Reḥovot-in-the-Negev is located on the road from Elusa to Nessana leading to the Sinai monasteries. The town was built atop a small hill, situated near the west bank of the Shunra stream, amidst the sand dunes of Shunra and Elusa. The central church in Reḥovot, one of four in the town, was built in the second half of the 4th century C.E., remodeled during the 5th century C.E., and finally abandoned during the late 7th century C.E.—probably along with all the other churches in the town. Coincidentally, during that period, a room in a nearby house (a khan?) was carefully rebuilt using building materials (including two stones adorned with crosses) from the abandoned central church.

The question of what the room was used for, which was built about one meter higher than other floors in the building, will be discussed in this paper. This small room has been altered from a previously secular space and may have been used for a ritual (or perhaps a political[?]) purpose, using the church's spolia. The relationship between the two buildings will be explored, and then compared with additional examples of spolia use from other Late Byzantine towns in the region.

SESSION: 3A. Archaeology of Jordan

The Anthropoid Coffins of Jordan: A Reappraisal of their Date and Meaning

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Seven whole or fragmentary clay anthropoid coffins recovered from disturbed archaeological contexts at Saḥab, ʿAmman, and Dhiban have remained enigmatic parts of the burial traditions of the Jordanian highlands since their discovery in 1929 (at Saḥab) and the 1960s (at Dhiban and ʿAmman). Their disturbed archaeological contexts mean that discussion of these artifacts has relied largely on typological analysis and then current historical understandings of Egyptian involvement in ancient Jordan. The result is a conventional dating of these artifacts to the Iron Age II, between the 10th and 7th centuries B.C.E., and a concomitant understanding that they are imitations of an earlier Egyptian tradition. In contrast to previous assessments, this paper proposes that they are contemporary with the Late Bronze Age clay anthropoid coffins found in the lowlands of Israel and Jordan, and that they indicate the presence of Egyptian personnel.

Loess is More: Social Complexity Through the Lens of the Petrographic Microscope at Khirbat al-Jariya, Jordan

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Khirbat al-Jariya (KAJ) is an Early Iron Age copper production site located in the Faynan region of southern Jordan. The site, excavated in 2006 and 2014, was occupied from the mid-11th to mid-to-late 10th centuries B.C.E. and represents the early phases of copper production in Faynan (Liss et al. 2020). Ongoing analysis of the ceramic assemblage from Area B at KAJ—a large, centrally-located structure—has uncovered typological links to ceramics from the monumental structure in Area R at the nearby site of Khirbat en-Nahas. The presence of parallels among high-quality ceramics at KAJ's Area B—including both elaborate forms such as an apparently local cup-spouted jar phenomenon and imported red-slipped and burnished fine wares—suggests the presence of elites at the site and in the region who exclusively controlled the exchange of copper. These regional connections are investigated through compositional analysis, including optical mineralogy and ceramic petrography. The results of these analyses indicate that red-slipped and burnished wares at the site are likely imports from the Western Negev, suggesting the involvement of elites in Area B in interregional exchange. The compositional study of the remainder of the ceramic assemblage also sheds important light on the hypothesis of external vs. local control of copper production in the Faynan region during the Iron Age, as well as on the widely discussed phenomenon of slag-tempering of ceramics from the Wadi Arabah.

The Built Urban Environment of Iron Age Amman

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An elaborate corpus of Iron Age stone statuaries from Amman attest to a royal ancestor cult comparable to those more fully substantiated among north Syrian and east Anatolian examples (Burnett and Gharib 2014/15; 2019; Burnett 2016). Additional artistic and architectural evidence from the Amman Citadel (*Jabal al-Qalʿa*) preserve traces of a monumental urban center conforming to patterns characterizing other Levantine political centers. Proto-Aeolic volute capitals, Iron Age column fragments, and bases have appeared in secondary contexts (Najjar 1999), and a series of excavations beginning in the 1960s uncovered Iron Age city fortifications and monumental, high-status buildings on the lower terrace (Zayadine 1977-1978; Dornemann 1983; etc.).

The landscape and archaeological evidence of the Amman Citadel, its south slope, and the Amman Theatre area below conform with the typical tripartite, concentric plan of Iron Age Syro-Anatolian political capitals: a natural hill with a fortified citadel (including palaces and temples), a surrounding walled inner town, and a lower town—a pattern variously adapted to natural topographies (Gilibert 2011; Harrison 2013; Osborne 2014). These correspondences in the built landscape of the Amman Citadel point to its Iron Age fashioning in accordance with a royal program coordinating monumental art, architecture, and ritual ceremony as observed among Syro-Anatolian comparisons. This discussion gives insight into the nature of Iron Age Amman as a royal urban center and its cultural connections to models of kingship and kingdom building in the northern Levant.

Social Complexity in Iron Age Transjordan: A Controlled Comparison of Resource Management in the Madaba Region

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Tall Jalul is one of the largest Iron Age talls in Transjordan with two known monumental features—a massive water reservoir and a stone approach ramp. Both required considerable skill and resources to construct. The site was surrounded by a stone wall, whose sloping sides made it easy to defend during the Iron Age. However, it is still unknown why Tall Jalul needed such a large water supply and approach ramp or how many people would have been within its wall at its peak during Late Iron Age II. What was the maximum carrying capacity of the city, and how much water did it need to sustain its population? Was there sufficient rainfall to fill the reservoir or was an outside source needed to maintain its water levels? How do these features compare to other sites in the Madaba Plains region?

This paper will conduct a controlled comparison examining the size, scale, and carrying capacity of Tall Jalul and evaluate the purpose of its reservoir and approach ramp. It will also calculate the amount of water needed to sustain its maximum population. It will identify the distances to nearby Iron Age sites and compare Tall Jalul with other sites on the Madaba Plains—including related archaeological features at Tall Hisban and Tall al-Umayri as well as relevant Iron Age settlements in the region. It concludes with a possible explanation for the site choice and the social organization that would have been needed to manage these large public works projects.

ArTu:DTu – Archaeological Study of Dajaniya and Tuwaneh in Jordan (Season 2018-2019)

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This paper presents the results of the work of a team consisting of archaeologists from the Jagiellonian University in Krakow and surveyors from the AGH University of Science and Technology in Kraków at the Jordanian sites of Dajaniya (Ma'an-Husseiniyeh) and Tuwaneh (Tafila-Hesa) from 2018-2019. As far as Tuwaneh is concerned, the research is the first attempt to go beyond surface surveys of this important site dated to Nabatean, Roman, and Byzantine periods and identified in The Digital Archaeological Atlas of the Holy Land as a site of high excavation priority due not only to its significance but also to the threats posed by looting and agricultural activities. Our efforts focus on creating the first top plan of the site but also on documenting the looting activity.

During the 2018 season in Dajaniya we: developed the orthomosaics and the Digital Surface Models (DSMs) of the Roman Fort, collected surface material, partially laser scanned the fort's architecture, documented looting pits, and prepared a virtual tour using a 360-degree camera. Based on our results we prepared a detailed 3D model of the architecture as well as a virtual reconstruction of the fort.

During two seasons in Tuwaneh (2018-2019) we documented parts of the site (e.g., the so-called caravanserai, baths, and storm drain fragments) using ultra-low altitude photogrammetry (ULAPh), kite-based photogrammetry, and laser scanning. In 2019 we also began trial excavations at the remains of the *thermae*, during which we discovered the relics of a hypocaust.

The Utility of Nabataean Coarse Wares: An Organic Residue Approach

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The ancient Nabataeans created a large corpus of ceramic forms, ranging between super fine to heavily coarse types of wares. The coarse wares alone account for over 230 unique rim styles from the Ad-Deir Plateau alone. Despite scholarship on the form and shape of Nabataean ceramics, very few have investigated what these ancient vessels once contained. This paper proposes some experiments to conduct to identify what these ancient containers stored and thus understand the utility of Nabataean coarse wares. This study will specifically employ absorbed residue or lipid analysis, which entails using transesterification to extract the trapped lipids and then process those samples through a gas chromatographer-mass spectrometer. The results should demonstrate the individual components of the trapped organic compounds. This data will potentially shed light on what the ancient Nabataeans stored in their ancient pottery and how they used them. Such information is important because it begins to get at the essence of local subsistence strategies and the Nabataean economy, which in turn may help current local Bedouin populations who are challenged with subsistence farming in the same desert environment.

Reading Between the Lines: Affordances and Material Properties of the Amarna Tablets

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A letter from Tushratta to Amenhotep III (EA 23) is divided into five sections, each marked by a pair of lines impressed into the clay tablet. The line placement punctuates the textual distinction of paragraphs in the letter. What do the lines on the tablet afford the reader? This paper considers the application of affordance theory to cuneiform tablets. Using a selection of the Amarna tablets sent between the great kings, as a case study, one can view the tablet as an environment that, in conjunction with the text, offers the reader a range of interpretative potentialities. The psychological theory of affordances posits that objects through their physical properties (actual and perceived) allow a viewer potential use possibilities and constraints. Can affordances reveal communicative strategies embedded in the material properties of tablets? This paper examines the affordances of clay tablets such as Tushratta's section rulings. It will also define tablet size, shape, weight, color, and layout, as well as clay composition, and non-linguistic markings as affordances. Each aspect individually or in concert with others has the potential to affect how a tablet and its text are encountered. By "reading" the lines on tablets, I argue that it is possible to discern patterns among the Amarna diplomatic correspondence which can help scholars analyze how certain affordances could shape the overall messaging of a tablet.

Between the Rocks and a Hard Place: The Materiality of Stone from the Neolithic to the Bronze Age

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Cultural objects have a lifespan from selection, through construction, use, destruction, and discard. Materials do not normally last forever, transforming through stages of "life", eventually leading to their "death". The materiality of stone objects, however, can defy the inevitable demise of an object, especially durable stone objects that can outlast generations of human lifespans. How groups of people deal with the relative permanence of the materiality of stone depends on their own relationship with the past and whether they venerate it or reject its influence on the present. A case study from the long-lived site of Prasteio-Mesorotsos in Cyprus demonstrates a shifting attitude toward the materiality of stone, from the Neolithic establishment of a house and home, through the maintenance of socially conservative habits in the Chalcolithic period, to eventually one of more casual re-use and reinterpretation in an innovative and rebellious society in the Bronze Age. The changing ways that the community at Mesorotsos perceived the materiality of stone seems to coincide with stages socio-political change, eventually leading to the ultimate rejection of the past and the complete abandonment of the settlement.

Enacting Danger: Acrobatic Performance in the Bronze Age Near East
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The body is a fundamental site of experience and meaning-making. Acrobatics, a mode of bodily movement that explores the limits of physical ability, offers a distinctive vantage point from which to observe ancient attitudes towards the body. Acrobatic performance, in particular, takes beliefs about the body, physical ability, and gender, and presents them back to society, sometimes subverting these beliefs, sometimes reinforcing them. In this paper, I explore the evidence for acrobatic performance in the ancient Near East through a combination of theoretical reflection and empirical case studies. Considered through the lens of bodily semiotics, embodiment, and performance theory, acrobatic spectacle offers unique insight into how the people of the ancient Near East understood the limits and abilities of their bodies, how these attitudes were (or were not) gendered, and how the individual and collective experience of bodies in motion helped define and/or contest cultural norms. Drawing on textual and art historical evidence for extreme bodies and acrobatic performance in Bronze Age Mesopotamia and Anatolia, I suggest new interpretations of several key objects and draw connections between textual references to professional acrobats and visual depictions of acrobatics. I also explore the ways in which a deeper theoretical engagement with bodily movement can transform our understanding of these figures, their embodied experience, their social position, and the meaning produced by their performances.

The Anxiety for Sovereignty: Esarhaddon and the Substitute King Rituals of 671–669 B.C.E.
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This paper historically contextualizes the three substitute king rituals of Esarhaddon between 671–669 by complicating the current understanding of this ritual during the Neo-Assyrian period. Relying on the discussions of Carl Schmitt, Michel Foucault, and Giorgio Agamben on sovereignty as an interrelational political concept, it argues that the ritual exemplifies the twofold anxiety of the Neo-Assyrian king for maintaining sovereignty: the sovereignty of bodies, his own and those of others, as well as his political authority vis-à-vis the divine in the vast yet often unsettled Neo-Assyrian empire. This paper examines the theoretical features of the Neo-Assyrian substitute king ritual in light of the politics of body sovereignty and highlights that: 1) the ritual presupposes a division of one's bodily and socio-political entity and the king's sovereignty over both aspects of his people; 2) its performance is triggered by a conflict of divine and monarchical sovereignty, in which an institutionalized body of knowledge and rites help the king cope with the conflict; and 3) the ritual requires the king's renunciation of his bodily sovereignty and provides a framework within which the king recovers his losses through his retained political sovereignty. It concludes with an analysis of Esarhaddon's layered anxiety for sovereignty as external political upheavals and the concern for his own health catalyzed the necessity of performing three substitute king rituals in 671–669 with a view towards political expediency.

Controlled Chaos: Violent Goddesses and the Permissiveness of Divine Gender Roles in the Ancient Near East
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In the pantheons of the ancient Near East, the goddess Anatu stands as an outlier. While most deities generally follow the gender mores of their cultural milieu, Anatu acts outside of the accepted norm. Rather, she is depicted as exercising power over male deities and humans alike through her explosive and violent nature, resulting in both cosmic and terrestrial death and life. An awareness of this atypical role is embedded within the texts via comments made by these male figures, yet she was widely worshiped throughout the ancient Near East, indicating that her nature was permitted.

Identifying her role in the cosmos and why her bending of gender norms was valued furthers our conception of cult in the ancient Near East. But, because the social behaviors of the divine echo those of humanity, Anatu's paradoxical juxtaposition of the feminine with the masculine may also lead to a more nuanced understanding of how femaleness was defined and regarded in the ancient world.

To decode this dynamic, we can apply a cultural anthropological approach in comparing Anatu to her descendent, the Hindu goddess Kālī, whose immoderate and unpredictable violence is understood to be essential in maintaining cosmic order. Both goddesses act as symbols of what ought not be, and yet is—acknowledgement that destruction is inescapable, but so is creation, and that which destroys may also create. By examining the elements of Kālī's functionality in a traditionally patriarchal culture, we can better appreciate Anatu's reception in the ancient world.

SESSION: 3C. The Tell es-Safi/Gath Project after 25 Years II

The Fabric of a Society: 25 Seasons of Excavating Textile Production at Iron Age Tell es-Safi/Gath
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Over the course of the past 25 seasons of excavation at Tell es-Safi/Gath, over 600 loom weights have been found in Iron Age strata across the tell. In the absence of direct evidence for textiles in the archaeological record, these clay weights represent weaving on warp-weighted looms, and enable the identification of areas for textile production. The diversity of contexts and strata in which the Tell es-Safi/Gath loom weights were found forms the foundation for examining the different modes of production, which range from small-scale household to large-scale centrally administered workshops. Though it may not be possible to reconstruct the precise textiles produced in these contexts, variations in the textile tools, their distribution, and in the associated architecture, point to diversity in modes of production modes, and in the types of textiles produced. This paper presents the results of a comprehensive study of textile production at Tell es-Safi/Gath and brings to light some of the cultural aspects imbedded in textile production as they relate to gender, social status, group identity, ideology, and time.

Urban Form and Structure at Tell es-Safi in the Context of Philistine Urbanism

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Some scholars argue that Philistine cities and culture were imposed on the Southern Levant during a period of rapid colonization. Others view Philistine urbanism and cultural development as a gradual, emergent process. Over two decades of surface survey, remote sensing, and excavations at Tell es-Safi provide significant contributions to this debate. These data reveal aspects of urban planning of the Iron Age city and how they changed over time. They show that the upper and lower cities do not share a common structure, with walls in the upper city oriented with respect to topography whereas walls and streets in the lower city are generally oriented north-south but shift to remain perpendicular to the city wall. Olive production may cluster in a sector of the lower city but also has a presence in the upper city. Metal working appears adjacent to cultic contexts in both the upper and lower city. Finally, in the lower city some Iron I contexts show a different orientation than Iron IIA contexts, suggesting a reorientation of spaces across these periods. In comparison with peer cities the data from Tell es-Safi show that Philistine cities were moderately planned because they show a preference for rectilinear space and some patterns of industrial activity, but the structural order and the use of party walls were not rigidly enforced, the location of industrial activities varied, and streets did not have consistent widths. These show that Philistine urbanism was an emergent phenomenon structured around adaptive principles.

Eat, Sleep, and Meet: A Spatial Approach to Houses and Households at Early Bronze III Tell eṣ-Ṣâfi/Gath

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In most considerations of houses and households in early urban settlements, either the spatial context of only a few finds or only a few find classes are included in the analysis. As such, they miss the opportunity to bring to bear the wealth of analytical material recovered during excavations. Inclusion of the spatial context of the multiple finds classes lead to better understanding the concept of 'household' during the Early Bronze Age. ArcGIS is employed as a spatial tool to investigate the location of these finds and enhance interpretation.

In this paper, we investigate and expand our understanding of the Early Bronze Age domestic area (Area E) at Tell eṣ-Ṣâfi/Gath. For the first time, all the find classes from each of the major excavated Early Bronze Age III strata (E5, E6 and E7) are considered. Repetition of artefact classes within and between architectural building units may allow definition of household toolkits, in that each house has similar goods and by implication, tasks. Comparison between structures as well as the generational changes as buildings are constructed and/or renovated affords the possibility for a micro-scale understanding of behavioral dynamics within structures, and possibly the definition of households within phases of occupation and changes over time.

A Decade of Working with "Asses" (Equus Asinus) at Tell es-Safi/Gath

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In this paper, the results of a decade long research with Early Bronze Age donkeys recovered from our excavations at Tell es-Safi/Gath are summarized and updated with newer data observations. At least four were buried as foundation deposits below the floors of the earliest level of the Early Bronze Age III (E5c) neighborhood before it was substantially rebuilt. An additional four donkey burials (complete and partial) from later Early Bronze Age III (E5a and b) strata from the neighborhood have been recently defined. These appear also to be foundation deposits as the buildings are renovated as the E5 Early Bronze Age III neighborhood at the east end of the site. In addition, there are numerous other donkey bones spread amidst the general faunal assemblage. This paper will present new results on the ritual use, consumption, use, behavior, and other activities associated with the donkeys recovered at Tell es-Safi/Gath and the region in general during the Early Bronze.

"And He Broke Down the Wall of Gath!" – A Summary Breakdown of Successive City Walls and Gates from the Early Bronze Age to Iron Age II Discovered by the Tell es-Safi/Gath Archaeological Project

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In periods from the Early Bronze Age to Iron Age IIA, the ancient city of Gath, located on the eastern edge of Israel's coastal plain, was one of the largest cities (and sometimes *the* largest city) in the entire region. Beginning already in Early Bronze Age III the site was fortified by a massive city wall. Parts of that wall were rebuilt in Middle Bronze Age II and served the city until Iron Age II, by which time newer fortification walls had also been constructed to protect the extended lower city of the Philistine capital. For 25 years, the Tell es-Safi/Gath Archaeological Project has excavated at this massive site, uncovering remains from the Canaanite and Philistine periods down to the Crusader era. Fifteen-meter and twenty-meter lengths of the Bronze Age city walls have been found in two areas of the upper tell and a shorter piece in a third area. In the lower city, fifteen-meter and twenty-meter lengths of the early Iron Age walls have also been discovered along the south bank of the Elah riverbed, as well as a shorter segment further east. One gateway in the lower city has been excavated and positively defined, and other gateway areas have been discerned in both the lower and upper cities. In all cases the city walls consisted of thick foundations, constructed of stones, and supported brick superstructures that stood several meters high. All of these finds will be discussed in the Chicago and Virtual 2021 ASOR Annual Meeting.

SESSION: 3D. Archaeology of the Near East: Bronze and Iron Ages

Destruction and Resilience: A Quantitative Approach to Aramean and Assyrian Campaigns in North-Central Israel

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In the 9th and 8th centuries B.C.E. both the Arameans and the Assyrians campaigned throughout the southern Levant. These

incursions were often recorded in biblical or extrabiblical texts, or both. The warfare also left a trail of destruction and abandonment in the archaeological record. Focusing on north-central Israel, this paper will present a quantitative analysis of the patterns of settlement destruction/abandonment in the various topographical sub-regions, and discuss the aftermath of the campaigns: settlement abandonment and reduction, or resilience and renewal. Reasons for differences in the long-term effects on settlement trends will be discussed in light of our sources for Assyrian, Aramean, and Israelite history and administration.

Religious Innovation and Elite Ideology at Bronze Age Hazor
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This paper investigates the active role of Hazor's elites in controlling, manipulating and altering the performance of ritual throughout its urban landscape. Hazor was the largest Bronze Age Canaanite site in the southern Levant, standing as an anomaly in the region in terms of its size, elaborate public architecture, special geopolitical stature, and far-reaching international networks. Although Hazor was a well-established urban center with many temples, the use of these temples and how they relate to one another has never before been systematically explored. In this paper, I will analyze the activities that were conducted within Hazor's numerous temples. The methodology employed fundamentally stresses the necessity to contextualize objects within entire assemblages—through spatial analysis—to assess how Hazor's cultic spaces were actually used. In order to establish deviations in Hazor's rituals, the use of Middle and Late Bronze Age temples at large will be discussed (by way of the same methodology), establishing a generalized "ideal-type" temple assemblage for Canaanite temples to which Hazor's cult spaces can then be compared. This paper will additionally highlight problems with previous research on Canaanite religion, underscoring misconceptions regarding the function of Canaanite temples—even questioning whether they should be considered "houses of the deities." This study will therefore address what the implications might be for the identified ritual anomalies at Hazor, highlighting the instrumental role of elite ideology, manipulation, and control over ritual activities at the site and in ritual practice at large.

Shrewd as Serpents: The Variable Nature of Snake Imagery on Bronze and Iron Age Ceramics of the Southern Levant
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At the 2019 ASOR Annual Meeting, I presented a paper that explored the contexts and functions of serpent-decorated ceramics from the Bronze and Iron Age levels of Beth She'an. Since then, further research has shown that within the Southern Levant's Bronze and Iron Age ceramic repertoire, there were only several types of objects which featured snake imagery, and they completely disappeared from the region at the dawn of the Iron Age II. By analyzing these objects' decoration styles, forms, contexts, and clustering on the landscape, this presentation will: show that this imagery had several functions connected to deity worship, protection, and medicine; examine their role in exchange networks; and present theories regarding their disappearance.

Stone Bead Production and Trade in Oman during the 4th to 2nd Millennia B.C.E.
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Stone beads found at habitation sites and burials throughout Oman, dating from the 4th to the 2nd millennia B.C.E., provide important insight into the local developments of technology as well as social and economic networks. Soft stone beads made from steatite, chlorite, and other locally available raw materials demonstrate the widespread presence of domestic craft production, which was used to create distinctive ornaments and decorative elements used in daily life and for deposition as burial goods. Hard stone beads, primarily made from carnelian, provide evidence for long-distance networks of exchange that linked coastal and inland sites in Oman with more distant resource areas in Iran and the Indus Valley region. Morphological analysis of bead shapes and sizes, as well as detailed studies of the technology of production, provide indicators of regional styles of soft stone bead production in Oman. Some local steatite beads were fired and hardened, but there is also possible import of fired steatite beads from other regions. Carnelian beads show more variability in shape and production due to the multiple source areas from which they derive. Scanning Electron Microscope (SEM) studies of perforations indicate changing patterns of perforation and drill use over time. Provenience studies of carnelian, using Laser Ablation-Inductively Coupled Mass Spectrometry (LA-ICP-MS), provide important evidence for possible source areas in Iran and Western India. These new data indicate the complex nature of Late Neolithic and Early Bronze Age technological developments in Oman, as well as both regional and extra-regional interaction.

Ceramic Production and Trade during the 3rd Millennium in Eastern Arabia and the Indus Valley: A Multifaceted Approach to a Complex Problem
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Pottery production and trade during the 3rd millennium in Oman and different regions of the Indus reflect a combination of local production using local processes and materials as well as the introduction of non-local processes to replicate trade vessels brought from other regions. The analysis of clay composition using ceramic petrographic analysis provides one perspective on the ways in which clays were used and processed in each region. The analyses of vessel shape and the *chaîne opératoire* of production provide additional perspectives on the ways in which technologies from different regions were adopted and adapted to local needs. The chemical analysis of the clays using Instrumental Neutron Activation Analysis provides an additional technique for tracing the movement of pottery from one geologically distinct region to another. Finally, experimental replication of pottery and processing of local clays allows for added insight into the potential for different types of ceramic production in a specific region. Preliminary results of these different studies will be presented, along with suggestions for new data sets that need to be collected to better understand the complex interactions between potters and the

people who used different types of pottery in Oman and the Indus Valley.

Thriving in the Desert: Reconceiving "Marginal" Sites in Desert Arabia through the Persistent Place of Saruq al-Hadid (Dubai, UAE)

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Archaeological sites in marginal environments can act as sensitive "barometers" for the effects of environmental change on past communities, and vice versa. With an average annual precipitation of less than 35 mm, the hyper-arid Rub' al-Khali Desert has typically been understood from just such a perspective—exploited during periods of significant climatic amelioration, such as the Early to Mid-Holocene Humid Phase, and depopulated during periods of climatic deterioration in so-called *tabula rasa* events. Recent research on the eastern margins of this so-called "Empty Quarter" provides a more complex and nuanced picture of ancient exploitation of the desert zone. Evidence from the site of Saruq al-Hadid (Dubai, UAE) demonstrates significant, repeated, and highly varied occupation and exploitation of the desert environment over the course of more than five thousand years (from the late 4th millennium B.C.E. to the premodern period). In this presentation, stratified archaeological, archaeobotanical, zooarchaeological, and archaeometallurgical evidence from Saruq al-Hadid is used to document the fluctuating scale and nature of human activities at the site. More broadly, environmental data from the site, as well as from excavations, are used to understand the site's changing environmental context over the Mid to Late Holocene—a period during which varied short term climate fluctuations can be traced against a regional background of increasing aridification. The significance of sites like Saruq al-Hadid lies not only in their ability to provide insights into the ways people used the desert margins but also in how we can understand cultural dynamics and practices.

Origins of Globalization: Early Bronze Age Southeast Arabia as Cultural & Economic Crossroads

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We often think of globalization as a distinctly modern phenomenon. However, evidence from the Early Bronze Age Near East suggests a deeper antiquity for the long-distance exchange of goods and ideas. Cuneiform texts from Mesopotamia offer some insights into the nature of these interactions and describe the economic, diplomatic, and military exploits between Sumerian and Akkadian kings and their neighbors in Dilmun (Bahrain); Meluhha (the Indus); Marhashi (Baluchistan); and Magan, now known to be southeastern Arabia. The maritime trade networks that connected these disparate groups met in the Oman Peninsula (the modern Sultanate of Oman and United Arab Emirates), where cultural influences and resources such as copper, diorite, and steatite/chlorite entered the emerging global community.

In this talk we explore the depths of this interaction from the vantage point of the UNESCO World Heritage Site of Bat, located in the Omani interior. The past twelve years of research at Bat have revealed a wealth of evidence connecting the site to its global neighbors. Carnelian beads from the Indus, soft stone and ceramic vessels from Iran, seals from Mesopotamia and Bahrain, and even a scarab pendant from Egypt attest to Bat's integration in global networks. Our most recent research has also begun to reconstruct more localized exchange networks within northern Oman. The resulting multi-scalar picture demonstrates how an oasis settlement like Bat functioned as a critical node in exchange, which spanned across Arabia and the Gulf.

A Systematic Approach to Developing a Seasonality Model of Ancient Fishing during the Umm-an-Nar Period

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Seasonality of fishing along coastal environments is an important aspect of reconstructing subsistence strategies. Seasonality is focused on seasonal abundance as well as presence/absence of specific species of fish. Through the use of longitudinal fishery data from the Sultanate of Oman Ministries of Agriculture and Fisheries and the Government of Baluchistan Ministry of Fisheries, we can develop a detailed movement of fish throughout the Sea of Oman and Arabian Gulf in terms of time (season) and space. This will allow us to create a more granular picture of seasonality along the coast of Oman in terms of habitation, seasonal movement of fish resources, as well as the development of habit-specific fishery technology (trolling, different types of nets, exploitation of specific nearshore, lagoon, and offshore habitats).

SESSION: 3F. The Amorites: Culture, History, and Archaeology I

Core & Periphery: The Curious Case of the Amorites and the Third Dynasty of Ur

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This paper examines Amorites and their multifaceted relationship with the kings of Ur in order to reframe discussions of core and periphery in early Mesopotamian states, and to consider questions of regional identity raised by Aaron Burke's forthcoming, *The Amorites and the Bronze Age Near East: The Making of a Regional Identity*.

"Amorites" in the Middle Bronze Age Southern Levant: An Assessment

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For decades, scholarship has cited the "Amorites"—as a people, or as a culture, or as an ethnicity—as a means both to describe and to explain Middle Bronze Age development in the southern Levant, and in particular, as a means of identifying the material culture and expression of the urban societies of the period. Although views of the mechanisms, means, and methods of this "Amorite" influence have changed over time, the association between "Amorites" and Middle Bronze Age culture runs as a thread through studies of material culture, urban development, and southern Levantine interactions with other regions and cultures. With such a long and varied past, the use of the "Amorites" as either descriptor or explanatory mechanism has

become as much an historiographic and interpretative issue as it is an historical and archaeological one, with subsequent ramifications for the efficacy of the term for either analysis or explanation. This paper examines both the historic use of "Amorites" as a causal explanation for cultural change and development in the Middle Bronze Age southern Levant and evaluates the usefulness of its modern usage in light of current historical and archaeological considerations.

"No Assyrian Whosoever Shall Give Gold to any Akkadian, Amorite or Subarean": The Position of Amorites in Old Assyrian Social Topography

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Although there exist only limited references to "Amorites" in the Old Assyrian textual corpus, it is clear that the Assyrians considered Amorites to comprise a distinct and separate group of people from themselves and other groups they identify such as the "Subareans", "Akkadians", and of course, Anatolians. Indeed, Amorites form one of the core groups of people that the Old Assyrian merchants both engaged with, and at times, avoided, in particular socio-economic contexts. Although the definition of *who* exactly constituted an Amorite is at times obscure, an analysis of Old Assyrian sources concerning Amorites in conjunction with evidence from slightly later Old Babylonian evidence, can shed light on how Amorites were conceptualized in the Old Assyrian worldview through the political changes of the 19th-18th centuries B.C.E. Furthermore, by re-positioning the Old Assyrian evidence concerning different social and political identities at the center of such enquiries, new perspectives on the social topography of the highly integrated world of the early second millennium B.C.E. will emerge.

Rethinking Amorites

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Who were the inhabitants of the land of Canaan (ancient Cisjordan)? Were the socio-cultural transformations of the Middle Bronze Age the result of an influx of new population to the southern Levant or did they come from within? A longstanding notion maintains that a population of Amorites migrated from Syro-Mesopotamia around the turn of the second millennium B.C.E. and introduced many of the changes that followed in the Middle Bronze Age. This became the accepted explanation for the origins of the Middle Bronze culture for many years, and the term "Amorite" became a catch-all designation that included any number of regional and ethnic identities. However, several problems are inherent in this explanatory model. Amorites are a group inferred from varied historical sources but defining them—historically—or identifying them—materially—has resulted in varied scholarly positions. The critical approach in this paper argues that Amorites are virtually invisible in the archaeological record of Cisjordan and can hardly be used to explain sociocultural transformations that occurred over multiple generations and across a large and varied landscape. The purpose here is to challenge the paradigm of historical maximalism applied to the early second millennium B.C.E. and to highlight the role of the indigenous inhabitants of Cisjordan in transforming their own landscapes and society. The use of the designation "Amorite," whether as a marker of an ethnic, socioeconomic, or political identity, conflates and obscures the indigenous origins of important transformations in the Middle Bronze Age.

"Ḥana" and the "Land of Ḥana" in the Amorite and Post-Amorite Ages (20th–11th centuries B.C.E.)

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Of all the emic terms used to describe people, places and/or lifestyles during the Amorite period (20th–17th centuries B.C.E.), few are attested in the subsequent centuries of the Late Bronze Age (16th–11th centuries B.C.E.). A notable exception is ḫanûm/ḫana, which in the 18th century B.C.E. archives from Mari (Tell Hariri) and Alalaḫ (Tell Atçana) qualifies groups of people and the territories associated with them, the "Land of the ḫana" (māt ḫana). The latter notion survived the fall of Mari in 1762 B.C.E., and is attested in the late-18th century B.C.E. archives of Šeḫnā (Tell Leilān), the late-15th to mid–13th centuries B.C.E., post-Mittanian, archives of Terqa (Tell Ashara) and Ṭābete (Tell Ṭābān) and Middle Assyrian archives and royal inscriptions from the 13th to the 11th centuries B.C.E.

While the primary use of ḫanûm/ḫana in the Amorite age is best described as a socionym ("tent-dweller, nomad"), the "Land of the ḫana" had from the start a political and geographic connotation, designing the traditional pasture lands (nawûm) of the Simʾalites in the Jezirah, which were claimed by the tribal kings of Mari as their own dominion. After the apparent dissolution of this tribal order, the toponym survived, but appears to have been attached to different regions over time and space.

The evolutions of this socio-spatial terminology show how elements of the "Amorite world-view"—especially concepts related to pastoral nomadism— persisted east of the Euphrates, during times when the "Amorite world order" had disappeared from Upper Mesopotamia.

Priestly Power and Political Pressure. The Ups and Downs of the Clergy of the Ekur in the Course of the First Half of the Second Millennium B.C.

Anne Goddeeris
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Forming the core of the traditional Babylonian urban centers, the temples remain the focal point of urban identity throughout Babylonian history. Weak central political authorities will be challenged by the temples and their clergy, strong political authorities will attempt to control them. Especially the Ekur in Nippur, the temple of Enlil, head of the Sumerian pantheon, represents a challenge to the political authorities attempting to centralize their expanding territories.

On the basis of the administrative files concerning the temple management, we can retrace the relations between the political authorities and the clergy of the Ekur in the course of first half of the second millennium B.C.

Four administrative dossiers illustrate different phases in the temple management: the *sattukku* lists from the Isin-Larsa period and the file of the "central redistributive authority" from the reign of Rīm-Sîn illustrate how temples of Nippur are managed on city level. A small file illustrates how, after Hammurabi's conquest of the kingdom of Larsa in his 30th regnal year, the influence of the palace in the temple affairs increases under his successor Samsuiluna. After the loss of the south, Samsuiluna's successors reinstate the cult of the Ekur reinstated in Dūr-Abiešuḫ under royal patronage.

The data to analyze these matters has to be extracted from administrative documents such as lists of expenditures and receipts. In order to compare the various files, network analysis tools will be used to visualize the participants in the management, and the weight of their contributions to the temple.

SESSION: 3G. Interdisciplinary Approaches to Seals, Sealing Practices, and Administration

Seals, Seal Impressions, and Changing Social Worlds in the Neolithic Period

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The earliest seals and seal impressions of ancient western Asia reveal otherwise evasive aspects of the social structures and values of the Neolithic world. This paper will develop our fragmentary understanding of the earliest seals by investigating, in particular, the materials and contexts of their impressions.

Seals and Sealings at Tell al Hiba/Lagash during the Early Dynastic I: Context, Imagery and Function

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Excavations at the site of Tell al Hiba (ancient Lagash), under the direction of Donald Hansen, produced a large and interesting corpus of sealings from the ED I complex of Area G. New excavations at the site in 2019 produced additional sealings from the period in a trash context of the ED III period. This paper will present the combined bodies of ED I glyptics, integrating them into a discussion developed by Giacomo Benati, which proposes to view sealings of this period as part of a process that commodified goods—contributing to the efficiency of the emerging administration. The discussion will expand upon Benati's consideration of City Sealings to include an examination of all of the imagery within such an explanatory paradigm.

Journeys of the Boat-God: The Significance and Spread of a Seal Motif in Early Dynastic Mesopotamia

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Images of a boat with an anthropomorphic, deified prow, often acting as transport for another divine figure, appear in Mesopotamian glyptic art in the latter half of the 3rd millennium B.C.E. They are among the earliest clearly recognizable depictions of deities in Mesopotamian art and perhaps some of the first artworks to portray mythological narratives. However, the iconographic meaning of the motif is still a matter of scholarly debate. For a long time, the prevailing theory connected the god seated in the boat with the sun-god Utu/Shamash on his journey through the netherworld during the night, despite the contradictory variations among the seals and the lack of textual sources for such a myth in ancient Mesopotamia.

In this paper I argue in favor of an alternate reading of the god-boat scene, linking the motif with textual evidence for gods' journeys by boat as part of intercity rituals. I also propose that the wide geographic spread of god-boat seals and sealings may be understood in connection with the cultic interactions of a regional network created and maintained by such ritual journeys. The large number of sealings depicting the god-boat from Tell Beydar prompts a reconsideration of the geographic distribution of the motif and an exploration of its use within a local administrative context in the north.

Constructing and Reconstructing State Identity: Seals and Sealings from the Lower Town Palace at Tell Leilan

Katherine Burge
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The 1985 and 1987 excavations of the Lower Town Palace at Tell Leilan (Shubat-Enlil/Shekhna) revealed levels dating to the final years of Shamshi-Adad's empire, when the site served as its capital, and later, after its collapse, when the palace was rebuilt and inhabited by a succession of local dynasties. These later levels yielded an important diplomatic archive documenting the reigns of the final three rulers of the city, as well as large quantities of administrative tablets and clay sealings impressed with the seals of bureaucrats employed by the series of regimes housed within the palace.

This paper presents the results of my dissertation research, which focused on analyzing and organizing these seals into style groups or networks and reconstructing their use patterns within the physical and institutional context of the palace. Though the functional information for many of the sealings is missing from the extant documentation, I show how the sealings' archaeological context provides substantial information about seal use and how their context offers a granular perspective of intra-palace administration—not only in terms of what was being stored and where and which functionaries had the authority to access or restrict goods but also how the patterns that emerge make it possible to infer how imagery was deployed, and to some extent, how it functioned. This material is then incorporated into a larger discussion about how local state structures, administrative practices, visual culture, and interaction networks change over time and how they are affected by disturbances in the political landscape.

The Iconography of Sassanian Priestly Seals

JoAnn Scurlock
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This paper is inspired by the work of Delphine Poinsot on Sassanian animal seals and, in particular, four animal seal types that are identified by inscription as belonging to mogh (Magi). It is the thesis of this paper that these seals were used to seal jars, chests, and storerooms dedicated to supplies needed for the four occasions in the year in which there was feasting activity associated with folkloric pre-Sassanian Iranian calendric festivals that were picked up and incorporated into the Zoroastrian cultic calendar. These are Nouruz, Tirigan, Mihragan, and Yalda. Nouruz and Mihragan, in particular, will have required vast quantities of wine, and Yalda needed melons that must have been saved over from Summer. Nouruz and Mihragan were also points at which very expensive "gifts" of gold and silver were expected to flow in. Additionally, as is usual with tribute, counter-gifts—in the form of the famous Sassanian silver plates and ewers—would have been made ready and kept somewhere out of harm's way. In this context, it would have been helpful from an administrative point of view to have seals that, at a glance, made it clear for which particular festival various stored items were intended. With the help of the counter-gifts and Sassanian sculptures, it may even be possible to say which seal belongs with which festival.

SESSION: 4A. Museums and Social Justice

Integrating Social Justice Work and Curatorial Practice at the Art Institute of Chicago

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In its most recent strategic plan, the Art Institute of Chicago has both recognized its role in "centering certain stories while marginalizing others" and expressed a commitment to "uncover new narratives in our galleries that allow continual, dynamic reconsideration in the present." An institutional commitment to such values is an essential step towards empowering staff to create a more equitable museum experience.

This paper will present the efforts of the newly configured Arts of the Ancient Mediterranean and Byzantium department as we grapple with recent social and political events and work to implement the Art Institute's newly stated values. Essentially, we will attempt to show what doing the work of social justice looks like in the context of a single curatorial department in a large encyclopedic museum. This work is important and essential but it is also difficult and incremental. Recent actions include: rethinking the stories we are currently presenting in the galleries and rewriting larger text panels to introduce new narratives; partnering with the newly formed People and Culture department to highlight new and different voices; participating in anti-racism training in order to better understand the systems of oppression that pervade our work; and reconsidering how we recruit and award internships to ensure equitable access rather than privileging personal and professional networks.

A Proposal for Socially Engaged Artifacts

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University of Pennsylvania Museum of Archeology and Anthropology, Philadelphia, PA, USA

After much research on the term "engagement" from the perspectives of different philosophers, museum professionals, and other thinkers, I have concluded that it is time to think critically about "socially engaged artifacts". This concept can be an effective component of Socially Engaged Art and, using its strategies and tools, can provide a magical touch to activate artifacts. As I read many theories of engagement, a question arose in my mind: Do we go to museums to view dead objects?

All too often artifacts seem to be disconnected from the present. I argue that artifacts in museums are not dead objects because they contain many stories that want to be told. When those stories are activated through guides, they increase the understanding of the objects and their relevance to communities. The relationship between past and present takes place in the minds of people living today, and the discovery of past lifestyles can always be made interesting. I propose that this concept be the beginning of a conversation that can develop into an effective key for engagement in the museum space.

It is the responsibility of the guide to engage the audience where they are and lead them to reach their own conclusions and connections with the past. Institutions can use socially engaged artifacts as the source of inspiration to create murals, workshops, conversations, and activate the museum's archives.

(Re)Presenting the Past: Towards a Feminist Praxis for Archaeological Museums

Leah R. Neiman
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Archaeological museums are uniquely situated to motivate social change in the present by helping visitors to think critically about structures of oppression and privilege in the past. While the past few decades have seen activists push for greater representation and equity in modern and contemporary art museums, the same attention has not been paid to the entrenched andro- and eurocentrism of archaeological museums. This paper demonstrates the benefits of incorporating feminist theory and feminist archaeological scholarship into the interpretation of archaeological collections in museums. I begin by explaining the theoretical grounding before shifting to focus on bridging the gap between theory and practice of feminist curation through the case study of the *Ancient Egypt Rediscovered* gallery at National Museums Scotland. Re-opened to the public in 2019, the gallery explicitly aims to help visitors engage with the lives of diverse individuals from ancient Egypt; yet the gallery relies on a simplistic androcentric chronology as its framework, throughout which women stand for all marginalized groups whose value is tied primarily to their male relations. However, with some simple but meaningful changes, such as reprioritizing label information and increasing curatorial transparency, the gallery could become an important entry point for audiences to critically reflect on archaeology and intersectionality. These proposed changes demonstrate not only how pre-existing galleries can be modified but the benefit of adopting holistic feminist practices throughout exhibition development. Feminist archaeological museums, which invite visitors to interrogate power dynamics of societies past and present through collections, could soon become standard practice.

Annexed Artifacts: Bias in the Public Display of Objects from the "Holy Land"

Morag M. Kersel
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Stereotypical museum culture focuses on objects in vitrines, showcasing the success stories while eschewing associated pesky problems related to geopolitics, ownership, provenance, and archaeological site destruction caused by demand for artifacts. This practice results in distorted displays, inaccurate interpretations of the material record, and injustice. There is a wealth of missing stories amidst the tendency to tell only certain aspects of the artifact's backstory. Museums have the potential to be relevant, socially engaged spaces, acting as agents of positive change and participation. Museums also have the potential to spread misinformation, alienate, and perpetuate injustice. All too often they strive to remain apart from the political and social issues that affect our lives, espousing a neutral stance that is a myth. Museums are not neutral. Injustices can and do occur when museums attempt to maintain an air of neutrality when they should be places of transparency and truth in their public display of the past. The use of the term "Holy Land" reflects a deliberate elision of regional states, which, in this paper, I argue results in the annexing of artifacts and the avoidance of issues related to the legacies of colonialism and imperialism—ultimately resulting in exhibition bias. The exhibition of archaeological artifacts from the

"Holy Land" offers a significant set of examples in curatorial decision-making, untold stories, breaches of public trust, and injustice.

Advocating for Un-Naming Museum Legacy Collections: A Case Study of an Egyptian Collection at the Global Museum

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Museum legacy collections are often comprised of archaeological objects and human remains purchased from the antiquities market. These collections require a level of care and research that necessitates addressing the legacy associated with the collection. Acknowledging these inherited histories and reevaluating these legacies often means museums must address the loss of object context, the problematic practices of colonial collecting, and the traumatic histories of racial bias and racist narratives presented to the public. This paper examines the case study of the un-naming of a collection formerly known as the *Sutro Egyptian Collection* housed in the Global Museum at San Francisco State University. By examining this case study through a diversity, equity, accessibility, and inclusion lens, this paper will explore how the Global Museum is reckoning with the legacy of this collection that was formed in the late 19th century and publicly displayed throughout the 20th century in an institution (the Sutro Baths) that was the site of racial discrimination in the 1890s. I will outline practical steps taken by the Museum to address problematic issues of ownership and the colonial history of this collection while also being more transparent and providing public access to the collection. I will conclude by advocating that additional institutions consider engaging in a similar self-reflective process, which explores past legacies and creates more inclusive legacies for the future.

Beyond Dead White Guys: Provenance through the Lens of Social Justice

Katherine Larson
Corning Museum of Glass, USA

For the last 20 years, provenance research has been a buzzword in North American museums which hold ancient artifacts. Motivated by heightened awareness of active looting in the Middle East, media scrutiny, and changing professional ethics policies, museums have developed platforms, hired researchers, hosted colloquiums, and digitized documents on the hows and whys of provenance research. However, beyond legal, ethical, and professional standards, museums still struggle to make provenance interesting and relevant to broader audiences. Too often, provenance histories are oriented around narratives of rich dead white guys, thereby perpetuating a colonial mentality about who owns and interprets the past. At the same time, museum operations and their accountability to audiences have been shifting in profound ways—accelerated by the 2020 coronavirus pandemic and Black Lives Matter movement. Community advocates are asking for greater transparency about the nature of collections, how they are cared for and displayed, and who writes the narrative.

In this paper, I explore ways to tie together the threads of provenance research and social justice work. How can museums build on the important foundations of provenance research to explore considerations such as power, consent, and neo-colonial legacies? In so doing, I argue, museum practitioners can better serve their audiences and continue the important work of understanding the histories of the objects in their collections.

WORKSHOP: 4B. Theoretical and Anthropological Approaches to the Near East II: Levantine Entanglements

Workshop Panelist: *Levantine Entanglements: Cultural Productions, Long-term Changes and Globalizations in the Eastern Mediterranean*

Susan Ackerman
Dartmouth College, USA

This is a placeholder for a workshop presentation description that will be updated after the panelist has read the forthcoming volume, *Levantine Entanglements: Cultural Productions, Long-term Changes and Globalizations in the Eastern Mediterranean,* edited by Terje Stordalen and Øystein S. LaBianca.

Workshop Panelist: *Levantine Entanglements: Cultural Productions, Long-term Changes and Globalizations in the Eastern Mediterranean.*

Thomas Davis
Lipscomb University, USA

This is a placeholder for a workshop presentation description that will be updated after the panelists have read the forthcoming volume, *Levantine Entanglements: Cultural Productions, Long-term Changes and Globalizations in the Eastern Mediterranean,* edited by Terje Stordalen and Øystein S. LaBianca.

Workshop Panelist: *Levantine Entanglements: Cultural Productions, Long-term Changes and Globalizations in the Eastern Mediterranean*

Darrell Rohl
Calvin College, USA

This is a placeholder for a workshop presentation description that will be updated after the panelists have read the forthcoming volume, *Levantine Entanglements: Cultural Productions, Long-term Changes and Globalizations in the Eastern Mediterranean,* edited by Terje Stordalen and Øystein S. LaBianca.

Workshop Panelist: *Levantine Entanglements: Cultural Productions, Long-term Changes and Globalizations in the Eastern Mediterranean*

Sandra Scham
Catholic University of America, USA

This is a placeholder for a workshop presentation description that will be updated after the panelists have read the forthcoming volume, *Levantine Entanglements: Cultural Productions, Long-term Changes and Globalizations in the Eastern Mediterranean,* edited by Terje Stordalen and Øystein S. LaBianca.

SESSION: 4C. The Tell es-Safi/Gath Project after 25 Years III (A Festschrift in Honor of Jeffrey R. Chadwick)

Presentation of Festschrift for Jeffrey R. Chadwick

Aren Maeir
Bar-Ilan University, Israel

To Explore the Land of Canaan is a collection of papers by colleagues, friends and students in honor of Jeffrey R. Chadwick. Contributors and presenters have worked with Jeff at Tel Miqne-Ekron, Tell es Safi/Gath, Brigham Young University, and the BYU Jerusalem Center for Near Eastern Studies. The papers in the volume

cover the various topics that he has dealt with in his career, including biblical historical geography and the archaeology and history of the Land of Israel during the Bronze and Iron Ages as well as the Second Temple Period. This session will include the presentation of the volume, a retrospect on his career, two papers from the festschrift, and a response from the honoree.

A Retrospective on the Career of Jeffrey R. Chadwick
George A. Pierce
Brigham Young University, USA

To Explore the Land of Canaan is a collection of papers by colleagues, friends and students in honor of Jeffrey R. Chadwick. Contributors and presenters have worked with Jeff at Tel Miqne-Ekron, Tell es Safi/Gath, Brigham Young University, and the BYU Jerusalem Center for Near Eastern Studies. The papers in the volume cover the various topics that he has dealt with in his career, including biblical historical geography and the archaeology and history of the Land of Israel during the Bronze and Iron Ages as well as the Second Temple Period. This session will include the presentation of the volume, a retrospect on his career, two papers from the festschrift, and a response from the honoree.

Theoretical and Methodological Change in the Archaeology of Philistia
William H. Krieger
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Is archaeological theory as important a tool for the archaeologist as is a Marshalltown Trowel? While even someone new to the field can see real results after a bit of time with their trowel, the same cannot always be said for theory. In fact, even some experienced archaeologists (in Israel and elsewhere) have a hard time fitting theory into their ideas about archaeology, and this has led some to proclaim that theory is dead (Bintliff 2011), that it never existed at all (Flannery and Marcus 2011), or, at best, that that it hasn't transformed the field in the ways it should (Sabloff 1981).
Much (though not all) of this frustration with theory can be traced to mid 20th century ideas about the proper relationship between theory and practice. The purpose of this talk is to explain and contextualize this disconnect, to show how a different understanding of the role theory plays in our work can better serve our needs. in honor of its 25th anniversary, I will use the excavations at Tell es-Safi to demonstrate how this change in perspective has been put to good use.

Asking for a Place: Identifying the Location of Biblical Eshtaol.
Owen Chesnut
NCMC, USA

The site of Eshtaol has been biblically connected to Zorah, the birthplace of Samson. Unlike Zorah, however, the location of Eshtaol has never been conclusively determined. Nineteenth century explorers, such as Edward Robinson and the Survey of Western Palestine team, attempted to identify Eshtaol with various towns in the eastern Sorek Valley based on toponymics. In the early Twentieth century, various scholars built upon these first toponymic observations and with some added archaeological evidence, made conclusions of their own. This paper will look at the suggested locations for Eshtaol, weigh the evidence, and after surveying three of the possible sites, a conclusion on the location of biblical Eshtaol will be reached.

Jeremiah's Journey to Egypt
James K. Hoffmeier
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Jeremiah 44:1 provides a sequence of toponyms which, in part, reveals the route taken to enter Egypt from Judea. The trek from Migdol (Tell Qedua) to Tahpanhes (Tell Deffeneh) and onwards into the Nile Delta represents a different route than the one that would have been taken during the 2nd Millennium B.C. Paleo-environmental and archaeological investigations in northwest Sinai between the 1990s and 2007 have revealed the road from Egypt to Canaan. The route taken by the band of Judeans, which included Jeremiah, after 586 B.C. is very different from the old way into Egypt, which required circling to the south around an 8 km by 8 km paleo-lagoon in northwest Sinai. The new data permits one to reconstruct the route into Egypt taken by the Judean refugees. The ecological changes that occurred beginning in the Iron Age I period explain why this new corridor was used. Interestingly, the toponyms in Jeremiah 44:1 provide one of the earliest written records of the new route in and out of Egypt that was used in the Saite and Persian periods.

The Ugaritic Tale of AQHT; An Etiological Galilean Epos
Rami Arav
University of Nebraska at Omaha, Omaha, NE, USA

Ever since the Ugaritic tale of AQHT was discovered in 1929, it has gained a variety of readings and interpretations. George Barton, in an article from 1941, provides the reason for this—Ugaritic is written with consonants and, therefore, is difficult to interpret. However, the fact that the language resembles archaic Hebrew can help us better understand the texts.

While modern readings and interpretations by Prof. Baruch Margalit and Dr. Shirli Natan-Yulzari have made these texts more approachable, Barton had already realized that the tale of AQHT contains Galilean features and proposed a Galilean origin for the story. I will continue this line of thought and argue that the tale is an etiological story explaining why the peculiar shape of the Sea of Galilee resembles a bow or harp.

In the story, a judge named Danel wished for a son. After a supplication, his child, named AQHT, was born. AQHT is then given a divine bow and arrows. However, when the Goddess Anat asks for the bow from AQHT, he refuses and insults her, saying bows are not made for women. The climax of the story occurs when Anat has AQHT killed. However, Anat does not get the bow, instead it falls into the water and breaks.

In the end, Danel buries the remains of his son in the fishery of Lake Kinneret. The geographical setting of the epic thus deals with Galilean surroundings. These references and other similarities to biblical literature allude to an etiological Galilean epos.

The Edomite Incursion of the Late 7th/Early 6th Centuries and Ancient Israelite Traditions

John T. Strong
Missouri State University, Springfield, Missouri, USA

Archaeological excavations at a series of late 7th century fortresses in the Beersheba-to?Arad valley, largely directed by Itzhaq Beit-Arieh, reveal that, at the time, Edom made significant incursions into the southern territory of Judah. First Name Qitmit, following Beit-Arieh's interpretation of the site Which Site as an Edomite shrine, demonstrates that the territorial claim included a theological claim upon the land by Edom's deity, Qos. Biblical references found in Ezekiel and other books, contain the Judahite reaction to this theological claim and a defense of Judah's territory as YHWH's land. Ancient traditions of YHWH, coming from the southern desert region, were foundational to this ideological and political conflict. The archaeological and textual evidence, when brought into conversation with one another, enriches our understanding of the history of this region in the late 7th/ early 6th centuries B.C.E.

Strange Fire Indeed: The Cultic Violation of Nadab and Abihu in Leviticus 10 in Light of New Discoveries in Ancient Near Eastern Sources and Archaeology

Jonathan S. Greer
Grand Rapids Theological Seminary, Grand Rapids, MI, USA

The cultic violation of the "strange fire" offered to Yahweh by Nadab and Abihu in Leviticus 10:1-11 has long puzzled commentators. Similarly perplexing has been the apparently related prohibition of imbibing intoxicating liquids (v. 8) prescribed for all officiating priests following the debacle. This paper considers the episode in the broader context of the use of mind-altering substances in various religious practices of the ancient Near East attested to in texts, iconography, and archaeology—including specific interaction with the recent discovery of cannabis at the Judahite temple of Arad (Arie, Rosen, Namdar 2020) as well as material paraphernalia from other Late Bronze and Iron Age sites. It is argued that the story may be understood as polemic against the use of mind-altering substances in the Israelite cult.

Arie, E.; Rosen, B.; Namdar, D.
2020   Cannabis and Frankincense at the Judahite Shrine of Arad. *Tel Aviv* 47:1: 5–28, DOI: 10.1080/03344355.2020.1732046.

SESSION: 4E. Technology in Archaeology: Recent Work in the Archaeological Sciences

Drawing Ceramic Plates for Jalul with Rhinoceros-Grasshopper

Michael Orellana
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The use of technology for drawing ceramic plates has been addressed by Karasik and Smilansky (2008) using 3D laser scanning and MatLab as the supporting software. Since then, several subsequent studies (Karasik and Smilansky 2011; Smith et al. 2014; Zapassky, Finkelstein, and Benenson 2006) showed that this method is useful for different types of mathematical calculations that benefit the field of ceramic analysis. One software that could help to take advantage of ceramic 3D models is Rhinoceros, an engineering software that works in conjunction with Grasshoper 3D to execute complex geometric operations. This paper describes an experience developing a method for creating ceramic plates using both Rhinoceros and Grasshoper. The ceramics samples come from Jalul's excavations from Field G4. There is a discussion on the steps to create a plate, how to automate it, an assessment of some of the advantages of this approach, and a description of possible future applications.

Multi-Tech Approaches to Remote Sensing at the Legionary Base of Legio VI Ferrata, Israel

Matthew J. Adams[1], Eileen Ernenwein[2], Ben Laugomer[3], Ido Schicht[3], Yotam Tepper[4]
[1]Albright Institute of Archaeological Research, Israel. [2]East Tennessee State University, USA. [3]Hebrew University of Jerusalem, Israel. [4]Israel Antiquities Authority, Israel

Since 2010, the Jezreel Valley Regional Project (JVRP) has carried out surveys and excavations in the vicinity of Tel Megiddo across what is effectively a massive sprawling multi-period site we refer to as "Greater Legio-Megiddo." Comprised of Bronze and Iron Age Tel Megiddo, Hellenistic, Roman and Byzantine Maximianopolis, the base and *canabae* of the Roman Legio VI Ferrata, the Roman Jewish settlement of Kefar 'Othnay, Islamic–Ottoman Lejjun, Medieval Crusader Leon, and Mandate era Base 51 and adjacent villages, the archaeological remains are contiguous across ca. 400 hectares. In order to support mapping, investigation, and data management from field work across this area, the JVRP has used a variety of remote sensing technologies and techniques.

In this paper, we present the combined results of remote sensing projects carried out at the base of the Roman Legio VI Ferrata alongside the general results of five seasons (2013–2021) of traditional archaeological excavation in this sub-set of the broader site. The results demonstrate the combined benefits of terrestrial ground penetrating radar; electromagnetic induction; magnetometry; terrestrial, plane-mounted, and drone-mounted LiDAR; drone-mounted multispectral and thermal imagery; and RGB orthophoto mapping of crop marks over time. The integration of the results from these varied technologies allows for a more complete map of the base and the identification of some of its specific components.

Towards an Understanding of Ancient Coastal Construction Practices: The Hippo-Stadium at Caesarea, Israel

Michael Lazar, Beverly Goodman-Tchernov
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Constructed along the central Israeli Mediterranean coast by Herod the Great over 2000 years ago, the hippo-stadium of Caesarea was an impressive structure—some 300 m long and over 50 m wide and able to seat 10,000 spectators. It has been speculated that the construction of the large artificial harbor to the north interrupted the natural sedimentary regime in the area. Blockage of sand-carrying, longshore currents from south to north by the harbor's southern breakwater, which may have extended seawards by as much as 500 meters, led to the accumulation of sand and to the expansion of the beach to the south. According to this theory, this newly formed sandy area provided "reclaimed" land, which in combination with nearby exposed aeolianite bedrock, provided a foundation for the hippo-stadium. At the time of its discovery and excavation, the structure was significantly eroded, leaving only partial remains from which to extrapolate its original dimensions. To examine these claims, a frequency domain electromagnetic (FDEM) survey was carried out within the boundaries of the hippo-stadium and combined with other

data collected in the field, as well as aerial photographic records pre-dating modern renovations. Results are informative with regard to the usefulness of this method, while shedding light on the sub-surface structure of the area, thus contributing new data from which to consider these earlier claims.

SESSION: 4F. The Amorites: Culture, History, and Archaeology II

The Ethnicity Quandary: Was there a Problem with Amorites?
Piotr Michalowski
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   For more than a century ancient Near Eastern studies has been haunted, for some at least, by the specter of a nomadic "Semitic" people named Amorites who, it is said, played a major role in the socio-political changes of early second millennium cultures in much of the area, from Mesopotamia to the shores of the Mediterranean. Philologists, historians, and archaeologists have approached such issues quite differently, depending on the data sets involved. I propose to revisit the Mesopotamian evidence, much of which I traversed a decade ago in a study that was mainly focused on the Mesopotamian Ur III textual information, this time including reference to archaeological matters. The earlier work questioned various arguments derived from textual references that proposed the fundamental involvement of "Amorites" in the political and social realities of early second millennium polities in the area. But the manner in which data is used in such debates are used is very much dependent on the manner in which one approaches the concept of ethnicity, a matter of intense debate in various disciplines, and this paper will attempt to review the problems confronting the Assyriologist in light of recent theoretical reformulations of the notion.

Developments in the Study of Amorite Names and Their Grammar
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   In addition to important historical and socio-cultural studies of the Amorites, several groundbreaking analyses of Amorite language, represented almost exclusively in personal names, have appeared over the past decade. Of particular importance is a detailed treatment of the Amorite verb by Viktor Golinets, completing the project begun by his *Doktorvater* Michael Streck, and followed up by summaries of Amorite grammar as understood by these two scholars. In addition, several detailed treatments of particular features of Amorite grammar as represented in names, as well as the phenomenon of Amorite language referred to particularly in the Mari texts, have appeared. Most recently, Mary Buck has devoted a monograph to establishing continuity between the Amorites of the Old Babylonian period and Late Bronze Ugarit on the basis of both material culture and linguistic classification, focusing especially on Amorite names from texts from western sites such as Tuttul, Alalaḫ, and Qatna.
   Building on the results of these works, this paper will address key methodological issues in the study of Amorite names and their grammar, from two fresh angles: 1) from the point of view of the author's work on a database containing linguistic analysis and prosopography for all personal names from all available texts from Alalaḫ and other second millennium Levantine sites, on the basis of fresh readings of the texts; and 2) from the point of view of onomastic theory brought to bear on the use of names for linguistic reconstruction.

Environment of Jebel Bishri in Syria as Dynamics for Early Amorite Mode of Life
Minna A. Silver[1], Markus Törmä[2], Kenneth K.A. Silver[3], Milton Garcia Nunez[1], Jari Okkonen[1]
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   In historical references dating from the third millennium B.C., Eblaites, Akkadians and Sumerians locate the early Amorite habitat to the area of Mount Basaar/Basalla hur-sag MAR.TU and MAR.DU-ki. All those areas point to the mountainous region of Jebel Bishri and the Middle Euphrates region in Central Syria. The area of Jebel Bishri between the Syrian Desert and the Euphrates covers ca. 1 million hectares that mainly consist of desert-steppe that has been arena of nomadic pastoralists for millennia and only allows occasional rain-fed agricultural endeavors in wadis. The riverine area of the Middle Euphrates region beneath the mountain is based on irrigated agriculture and small sedentary sites instead. Over 10 years the Finnish project SYGIS archaeologically surveyed and mapped the region finding differences in the habitats and in the archaeological remains of the mountain compared to the bordering Euphrates River. Remote sensing in mapping and ethnoarchaeological approached on the ground were included in the project design. This paper will present and discuss different modes of life visible in high- and lowland interaction and variety of tribal groups in the early habitat of the Amorites reflected in the archaeological remains and textual sources. The interaction between the habitats, subsistence economies, mobility and sedentism developed to a dynamic life mode of early Amorites.

The Construction of Amorite Social Identity and Sources of Social Power
Aaron A. Burke
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   The exploration of Amorite identity in the Bronze Age Near East remains a historically contingent effort. As various studies have concluded, Amorite identity was viewed differently across the Near East across different periods. Ethnicity as a framework fails to account for these diverse outcomes, and it remains to be explained why a broader Amorite identity was durable and significant across so much of the Near East by the second half of the Middle Bronze Age (ca. 1800–1600 B.C.). This paper brings together the conclusions of a research program that explores the emergence of Amorite social identity through the aggregation of various sources of social power. The social importance gained through identification with Amorites expanded gradually over several centuries, from the late third millennium through the early second millennium. This process, which can be reconstructed historically, entailed a coalescing of economic, military, ideological, and, eventually, political power that contributed to the construction of an Amorite social identity. In this paper the factors behind this process are outlined, and the limits and reasons for the eventual demise of Amorite social identity are discussed as further corroboration of the basis for Amorite social power and its ultimate erosion.

Amorite or am I Wrong?

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Some topics are complex enough that to state the problem is an important step forward. 'Amorites' are such an issue. Questions about 'Amorites' arise in research on Egypt and the southern Levant to Anatolia and Bahrain. This paper introduces the sessions "The Amorites: Culture, History, and Archaeology.

WORKSHOP: 4G. Stamp Seals from the Southern Levant

The Megiddo Fibula: A Possible Assyrian Reproduction Amulet

Ben Greet
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In the Megiddo Volume I, a fibula with a stamp seal is recorded amongst the finds of Strata IVA-III, dated to the Iron IIB. On the fibula's left arm is the head of the demon Pazuzu and on its right is an eagle, with the stamp seal depicting a kneeling caprid with a branch. This paper aims to confirm the previous assumptions of the fibula's Assyrian influence/origin through provenanced comparanda and posit a new joint meaning between the imagery of the fibula based around reproduction. The head of Pazuzu has been shown to be used as a protective amulet during pregnancy, whilst the eagle can be connected to both pregnancy and the birth process through the Myth of Etana and its link to other protective amulets. Even the caprid and branch could be linked to concepts of fertility and, possibly, to specifically male fertility. Thus, this tripartite imagery covers almost the entire reproduction process from fertility, to pregnancy, to birth.

Methodological Approaches and Research Perspectives on Southern Levant Stamp Seals: A Focus on Signet-Rings

Giulia Tucci
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Stamp-seals represent a case study that enriches archaeological contexts with fundamental information about the circulation of people, materials, technologies, and to better understand the cultural environment of a society. The second and first millennia B.C. in the Southern Levant are periods of dynamism, with a large number of agents in contact with each other. Here we find an opportunity to detect the different aspects connected with seals typological and technological development, as well as distribution and consumption. I will present my contribution using as a starting point the methodology applied in my PhD research on the Jewelry of the Southern Levant during the Late Bronze. The focus will be on examining the material class of stamp seals in the context of personal ornamentation and their possible multiple functions within the material culture of the Southern Levant in relation to the society producing and consuming such artefacts. Such a research would provide a possible setting to address issues of primary importance, such as mobility, cultural contacts, entanglement, foreign presences, and social interactions. All this without losing the anthropological side of the research, paying attention to the singularity of the "users" of the seals (collective and personal identity, origin and social position). Seals as *markers* of status/rank/role? This argument will open the way for future considerations on the ultimate purpose of seals, when used in their primary function, as witnesses of transactions, whether commercial or administrative, and the evaluation of the object, once decommissioned, as a luxury good, often treasured and inherited.

Steatite Scarabs from the Second Millennium B.C.E. Southern Levant: A Chaîne Opératoire Approach

Noa Ranzer
Tel Aviv University, Tel Aviv, Israel

Scarabs found in numerous southern Levantine sites in contexts dating to the Middle Bronze Age and the Late Bronze Age were produced both in Egypt and in the southern Levant. In this paper I will present the sequential phases of the scarabs' production, i.e., the *Chaîne Opératoire*. This reconstruction emphasizes the social context in which scrabs were produced and raises some questions related to how steatite was imported from Egypt to the southern Levant.

Iron Age I "Anchor Seals": Interpretation and Significance

David Ilan
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Seals termed "Philistine anchor seals"—which resemble typical Bronze Age stone anchors—are found on the southern Levantine coast and, less frequently, inland. They are engraved with various motifs on the base: possible Cypro-Minoan signs, schematic human figures and horned quadripeds, and a lyre player. These motifs are deliberate and organized, clearly with coded meanings, though these still escape us. No object was found bearing an anchor seal's impression. The association of the shape with the anchor requires reexamination; I will suggest that, rather than the anchor, the shape references the pyramidal loom weight of the kind common in LCIIC-III Cyprus. If this is so, the pyramidal stamp seals may be related to the manufacture and exchange of textiles, and one more artifact type indicative of Cypriot cultural influence on the Iron I Levant.

Intersecting Stamp Seals and Gendered Bodies

Bruno Biermann
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What do we know about the gender of wearers and users of stamp seals from the southern Levant? The interest of Biblical Archaeology in glyptics has long been focused on the identification of biblical, elite male persons. Such an approach reproduces a patriarchal and status specific representation of history. However, most of the seals from the southern Levant do not bear personal names.

To reevaluate the relevance of southern Levantine stamp seals for gender-historical questions, I suggest an alternative approach based on Gender Archaeology. Stamp seals are a particularly interesting part of material culture regarding gender issues due to the intersection of material culture and human bodies they provide. Their high numbers, broad dissemination, and common accessibility to persons of various social status, gender, and origin renders seals ideal for such an approach. And if gender is performed by engendered bodies, who in turn are shaped by such performances, this also is the case for material culture related to the body. Thus, both aspects, gendered social performances and material culture can be present in the archaeological record. Consequently, recent excavations in the Southern Levant increasingly employ bioarcheological methods systematically, enabling extensive insights into social structure, but also sex and gender constructions of individuals. Employing the final reports of the Leon Levy expedition to Ashkelon, I will demonstrate

the productive insights yielded by the intersection of glyptics and Gender Archaeology.

Functions of Imported Egyptian Seal-Amulets in the Southern Levant

Ann-Kathrin Jeske

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Despite the prominence given to Egyptian seal-amulets, a study of their function received–so far–little attention in favor of other research questions, foremost chronology. Among the suggested usages of seal-amulets are votive and grave goods, administrative tools and apotropaic objects. These reconstructions derive mainly from the nature of the find contexts but also from the decoration and shape of the amulets. This paper takes a step back from more generalizing approaches to the function of Egyptian seal-amulets, and instead intends to look closely at the individual objects, allowing one to consider individual variation and flexibility in the way seal-amulets were used and worn. In a small case study, about 70 imported Egyptian seal-amulets from the southern Levant were examined for secondary marks. A reference catalogue built up through experiments with dummy seal-amulets facilitates the discussion of possible causes of these marks as well as infers use and function of the case study's seal-amulets. The results of this case study will evaluate the 'traditional' and more generalized approach to assess use and function of (Egyptian) seal-amulets. It will be also inquired if these results might impact the current interpretation of Egyptian engagement in the region during the 2nd Millennium B.C.E.

A Critical Discussion on the Concept of "Groups" in Stamp Seal Production in the Southern Levant

Nadia Ben-Marzouk

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Scientific research has long confirmed that the human brain is wired to categorize. While it is therefore natural to group features in glyptic studies, what underlying assumptions do we make when doing so? The objective of this paper is to provoke discussion on the methods and categories by which groups are established, as well as the larger social implications of shared features. First, this paper will briefly survey the history of grouping in stamp seal production in the southern Levant and then raise the following questions for discussion: What assumptions do we make when grouping features? Are these objective categories? How does the process of grouping allow us to better understand the relationship between seal use and a community? A new framework will be proposed for moving from descriptive categorizations of features to an approach that allows for the explanation of continuities and points of divergence in social practice as they pertain to stamp seals.

SESSION: 5A. Complexity Without Monumentality: Rethinking Nomads of the Biblical Period

Rethinking the Social Complexity of Early Iron Age Nomads
Erez Ben-Yosef
Tel Aviv University, Tel Aviv, Israel
   Recent evidence from the Aravah Valley challenges the prevailing assumption that Bedouin ethnography and inferences from ancient Near Eastern archives can adequately compensate for the archaeological lacuna in the study of biblical-era nomads. The evidence indicates that nomadic social organization at the turn of the 1st millennium B.C.E. could have been—and in at least once case was—far more complex than ever considered before. This paper discusses the implications of the now extended spectrum of possible interpretations of nomads to the *"archaeological"* discourse on early Iron Age state formation processes in the Southern Levant. Using the case of ancient Edom and Moab, the paper demonstrates that common reconstructions of "emergence" and "collapse" are, in fact, oscillations in the archaeological visibility of nomadic societies—which do not necessarily correlate to an increase or decline in social complexity. Rather, it is more likely that the appearance and disappearance of stone-built remains reflect processes along the sedentary–nomadic continuum (in which "sedentary" does not equal more socially complex), as well as a response to varying economic and geopolitical needs. It is likewise argued that in current biblical archaeology, *"archaeology-based"* historical reconstructions of ancient Israel and the United Monarchy are inherently flawed and suffer from a bias in favor of interpretations of the more "critical" school, as it gives an unbalanced weight to the sedentary (i.e., the archaeologically visible).

Architecture of 'Nomadic' populations in the Desert Areas in Biblical Periods?
David Ben-Shlomo
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   The paper deals mainly with compound or 'enclosure' settlements and sites in desert areas in the Negev, Judean Desert, and the Jordan Valley in Israel. Small sites containing simple or more elaborate compound structure are known mainly from surveys from arid areas in the southern Levant. These compounds are enclosed by a surrounding wall delimiting various areas, usually in a circular or oval shape. These sites, often locating rather far from main water sources, have very sparse finds and are difficult to date. The only reliable method for dating these is often OSL (optically stimulated luminescence). Their function was suggested to be related to the gathering of flocks. This paper will discuss the possibility that these compounds represent settlements of nomadic or semi-nomadic populations in biblical times, as well as later, according to the finds within them and ethnographic evidence. Possibly, these compounds reflect certain sedentary habits of nomadic populations in various periods. The meaning and significance of such nomadic population architecture in this region will also be discussed.

Aramean Mobile Pastoralists and Their Polity Structures
K. Lawson Younger, Jr.
Trinity International University - Divinity School, Deerfield, Illinois, USA
   This paper will investigate the different types of polity structures among the Arameans' tribal entities. It will examine the flexibility and adaptability of their political structures—in issues of modes of subsistence and in extents of mobility. It will demonstrate the complexity of these socially-constructed groups (and numerous nested subgroups) in territorial concerns.

The 'Complexity' and 'Evolution' of Nomadic Tribal Societies of the Biblical World: How Fit for Purpose are our Concepts?
Zachary Thomas
Tel Aviv University, Israel
   'Complexity' and 'Evolution' are both concepts that one frequently finds invoked in the somewhat conservative theorizing of Near Eastern archaeology, whether one is reading about primarily settled or nomadic societies. Though there has been critique, it has yet to really penetrate archaeological scholarship of the southern Levant very much. The discovery of an Early Iron Age nomadic polity in the Aravah (identified with Edom) and the possibility that Israel was still substantially nomadic (even into the Monarchic period) prompts the question of just how fit for purpose these two concepts are in this context—a question taken up in this paper. Both can be traced back to the beginnings of Euro-American anthropology in the late 19th century, its context in colonialism and even orientalism, and the embracement of these concepts in processual archaeology decades later. This paper argues that in investigating the nomadic tribal societies of the biblical world, 'evolution' is philosophically and methodologically problematic enough to be worth simply abandoning, while 'complexity' can remain a useful concept if it is attenuated to the context to which it is applied.

SESSION: 5B. Archaeology of Israel

Fact or Fiction? Disentangling Recent Debates Regarding Lachish in Bronze and Iron Age
Katharina Streit
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   The precise nature of the Iron Age IIA (Level V) and Iron Age IIB (Level IV and III) occupation at Lachish, as well as possible corresponding historical events have been subject to debate since the earliest excavations at the site. Yosef Garfinkel recently proposed that the Level V settlement was restricted to the north-eastern corner of the site and surrounded by a fortification wall. He claims that radiocarbon data suggests a date for this stratum in the second half of the 10th century B.C., reconstructing a phase of "Judean expansion" under king Rehoboam. Garfinkel further reassigns the so called "mid-slope wall," which is traditionally believed to be part of the Level IV/III fortification system, to the Middle Bronze Age and further rejects the existence of a glacis as fortification. This paper summarizes the current positions, and examines the evidence they are based on. Drawing together data gathered by the three previous and the ongoing fourth expeditions to the site, I will disentangle the lines of argument, aiming to achieve a more accurate reconstruction of Lachish in the Bronze and Iron Age.

Decorative Motifs on the Philistine Pottery from Tel Beth-Shemesh: New Observations

Linda G. Meiberg
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Tel Beth-Shemesh lies in the north-eastern Shephelah, approximately 12 km to the east of the two major Philistine pentapolis sites of Tell es-Safi/Gath and Tel Miqne-Ekron. Two early expeditions to the site under Duncan Mackenzie (1911–1912) and Elihu Grant (1928–1933) uncovered appreciable amounts of Philistine bichrome pottery (Philistine 2 Ware). This led the excavators to speculate that Beth Shemesh, a biblical site on the border between Philistia and Judea with clear Israelite connections, was dominated by the Philistines in the early Iron Age. The renewed excavations from 1990 to the present under Shlomo Bunimovitz and Zvi Lederman have uncovered a complex picture of the settlement as a border community in the Philistine periphery in Iron Age I.

Since the publication of Grant and Wright volumes on the excavation of Beth Shemesh in the 1930s, little research has been conducted on the collection of Philistine pottery in the Penn Museum in Philadelphia, as well as in the Rockefeller Museum in Jerusalem. This is especially relevant as the renewed excavations continue to yield notable amounts of Philistine pottery. This talk will present a comprehensive study of the Philistine pottery uncovered at Beth Shemesh from the three expeditions and evaluate the recurring decorative motifs that are common to the pottery from this site. The range of motifs demonstrate a strong connection to the Aegean world.

New Excavations at Tell Beit Mirsim: First Results from the 2021 Season

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Tell Beit Mirsim is one of the largest mounds in the southern Shephelah (Israel). During the 1920s and 1930s it was extensively excavated by W. F. Albright, who exposed a sequence of Iron Age and Bronze Age strata. Over the years many questions have been raised regarding the chronology and nature of these settlements. Due to the importance of the site, the absence of significant post-Iron Age remains, and the extensive evidence of economic and industrial activities that were found in Albright's excavations, a new field project was initiated. The project concentrates on examining the economy and social structure of the Iron Age cities (Strata A and B). This paper will present the project and the results of the first season of excavations.

To Market it Goes: The Production and Movement of Hellenistic Mold-Made Relief Bowls (MMBs) in the Southern Levant

Sandra D. Mermelstein
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Hellenistic mold-made relief bowls (hereafter MMBs) were popular from the early to mid-2nd century to the 1st centuries B.C.E. These bowls were part of the trade network that existed in the eastern Mediterranean and are found at sites from Greece to the Black Sea, Turkey, Syria, Lebanon, Cyprus, and Israel. This work will examine possible original proveniences of bowls primarily discovered in modern Israel. I am currently researching more than 1,100 MMB sherds uncovered at the site of Tel Dor, Israel, along with material from ten other sites. Due to the difficulty in determining the ceramic's origin, so far, 198 samples of pottery from the Southern Levant have been analyzed using Neutron Activation Analysis (NAA). These sherds reflect various sites, ware groups, and design motifs. The results will help us to better understand regional trade patterns and economic relationships that brought MMBs to Dor and other Levantine sites. MMBs identified in this research were all imported to Israel with no evidence of any local production of the bowls. This work will address a number of questions: can we determine who produced and/or sold MMBs identified in the southern Levant? And what do the MMBs identified at Hellenistic sites in modern Israel and Antioch tell us about their trade and popularity? My research goals include determining the production centers that produced MMBs and trade routes used to transport the ceramics to markets.

The Chalk Vessel Assemblage from Tel Beth Shemesh East in Light of the Chalk Industry of the Second Temple Period

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The emergence of the chalk vessel industry at the beginning of the Second Temple period in ancient Israel did not occur in a void. The *Halakhah* classified stone vessels as objects of inalienable purity, suitable for ritualistic use. Due to the concentration of raw material sources east of Jerusalem and the special status of the city, the chalk vessels were quarried, manufactured and used primarily in Jerusalem and its surroundings. The vessels appeared in virtually every Jewish settlement during the Second Temple period, and they mark the presence of Jewish populations. Because of the strong relationship of these vessels with Judaism, their production and use rapidly ceased after the destruction of the Second Temple in 70 C.E.

An assemblage of 49 Judean vessels was recently recovered at Tel Beth Shemesh East. The site is located in the eastern part of the Judean Shephelah, west of Jerusalem. The area was settled by Jewish communities both prior to and after the destruction of the Second Temple. However, the abundance of Judean vessels in this region is significantly lower than in the Holy City and its immediate surroundings, where there was a concentration of chalk quarries and workshops. Therefore, the assemblage from Tel Beth Shemesh East offers a unique insight into the roles these ritual vessels played within Jewish settlements located outside of the religious center of Jerusalem and continuing after its destruction. We will address some issues regarding the typo-morphological preferences of the vessels and their production.

Tsunami-Derived Sediments Identified in the Destruction Sequence of an 8th Century Warehouse in Caesarea Maritima, Israel

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Coastal archaeological sites have the potential to preserve evidence for past geological events in well-confined anthropogenic contexts. According to nearshore sedimentological records, a tsunami struck the coast of Caesarea Maritima, likely coinciding with a major earthquake in 749 C.E. during the early Islamic period. Archaeologists have found anomalous sand and shelly layers from the same time period during excavations of structures near the shore. These layers have variously been interpreted as construction fill, dune development, or general abandonment. Recently, an excavation of a warehouse adjacent to the harbor uncovered this same deposit, allowing it to be analyzed in detail to determine its taphonomic history. The deposit is comprised of a thick, well-sorted sand layer with semi-articulated sequences of building stones, followed by independent matrix-supported building stones. The entire deposit is sandwiched between an underlying, abandoned early-8th century floor and, from above, by a late-8th century floor; thereby constraining its age to sometime mid-8th century C.E. Two sediment cores from the deposit, as well as reference samples representative of various nearby depositional environments, have been analyzed for grain size distribution, foraminiferal assemblage, Optically Stimulated Luminescence (OSL) dating, and relative age by portable luminescence (POSL). The combination of results indicates that the sandy deposit was formed from the transport of offshore marine sediments during a single high-energy inundation event. The results of this study will contribute to the understanding of high-energy tsunami deposits preserved on land in Caesarea Maritima and, more broadly, to the understanding of tsunami sedimentological studies in geoarchaeological contexts.

SESSION: 5C. Archaeology from Every Angle: Papers in Honor of Richard L. Zettler

At the Shrine of Sheikh Adi: Restoring the Lalish Sanctuary to its 'Original Character'
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The Project for the Restoration of the Lalish Temple (Dohuk, Iraqi Kurdistan) is aimed at the stabilization and renovation of the historical parts of the holiest sanctuary of the Yezidi faith. Undertaken thanks to a grant from the U.S. Department of State and planned in accordance with the Yezidi Spiritual Council, the project seeks to restore the interior and prevent the collapse of both the damaged vaults of the main hall and the three "oil" halls within the Sanctuary. This implies respecting the historical transformations that the complex has undergone over the past centuries, while correcting modern interventions that pose a risk to the building's integrity. In order to ensure the preservation of the building's character and layout, the project is required to restore the building to its "original character."

This presentation will focus on the challenges of unveiling previous stages of the site's history through the study of published and unpublished archival documentation as well as data obtained from the ongoing preservation and restoration works. The religious complex captured the attention of 19th and early 20th century western travelers and archaeologists, whose accounts included detailed and picturesque descriptions of its architecture and associated rituals. Historical accounts will be contrasted to review the site's history, revealing construction phases of the Sanctuary and shedding light on previously undocumented and understudied mausoleums, fire shrines,

and sacred natural features in the Valley. This study aims to contribute to the research, dissemination, protection, and management of Yazidi tangible heritage in a post-conflict period.

The Divergent Paths of Jerusalem and Samaria
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For many years, Richard L. Zettler introduced undergraduate students to the field of urban anthropology in his Origins of Cities course at the University of Pennsylvania. One of the ideas that emerged in this course was the concept that state societies themselves mirror their urban structures and *vice versa*. Based on this approach, I will argue that while external imperial policies of Assyrians and Babylonians did play a role, the differing paths of Samaritans and Jews from the Iron Age to the Hellenistic period should be chiefly understood internally, within the distinct approaches to urban and state structure in ancient Israel and Judah. Israel separated the ritual centers from the political center, whereas Judah always maintained that Jerusalem should be both a political and spiritual center through efforts in the 7th and 6th centuries B.C.E. to centralize ritual practice in the city. It was this ideological commitment to a single political and religious center that ultimately led to the rebuilding of Jewish life in the Land of Israel and beyond. The Samaritans, meanwhile, saw their numbers dwindle as they focused on ritual in the absence of political development.

Defining the Sacred in the Early Dynastic Houses at Khafajah
Jean M. Evans
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Three object categories identified exclusively with Mesopotamian temple gifting practices of the Early Dynastic period (ca. 2900–2300 B.C.E.)—mace heads, statues, and door plaques—are organized around a small number of examples bearing dedicatory inscriptions confirming their sacred character. Excavations at the site of Khafajah in the Diyala region east of Baghdad archaeologically confirmed the sacred nature of these object categories because they were, with few exceptions, found only in temples. In general, there is a reluctance to deal with sacred gifts outside of sacred contexts. These irritating objects, to borrow a surrealist term, are most often disregarded. However, I will argue that the largely unpublished Locus P 43:24 assemblage in the Houses at Khafajah is unequivocally sacred and confirms the designation of the locus as a sacred space. Dating to later in the Early Dynastic period, Locus P 43:24 is important because it prefigures the more widespread evidence—largely in the form of mud brick installations identified as altars—for domestic devotional practice in the late 3rd and early 2nd millennia B.C.E. at Ur, Eshnunna, Nippur, and other sites. The evidence provided by Locus P 43:24 therefore indicates that there is a material culture of domestic devotional practice already in the Early Dynastic period. Since the Locus P 43:24 assemblage has marked differences from the later evidence, it allows for additional observations about Early Dynastic practices.

In the Cradle of Aromatics: Terracotta Incense Burners from Babylonia as Evidence for the 'Seafaring Merchants of Ur'

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In the past, archaeologists have noted the apparent spread of the so-called 'cuboid' incense burners that were found at archaeological sites specifically within the orbit of southern Babylonian along the Euphrates River conduit in tandem with the overland Arabian trade in aromatic gum-resins conducted by the Neo-Assyrians, Neo-Babylonians, and Achaemenid Persian empires in the 1st millennium B.C. This paper combines multiple sets of data—provenance, patterns and designs, sizes and shapes, craft production methods—to analyze the relationships between locally and regionally manufactured cuboid-shaped incense burners from Babylonia to the famed frankincense trade relays of the southern Arabian Peninsula. The result highlights interaction and trade between cities through the spread of 'aromatics of all kinds' not only by overland trade roads and relays but also, more importantly, by the seafaring routes of southern Babylonia, Dilmun, and Magan.

SESSION: 5D. Digital Archaeology and History I

Save Ancient Studies Alliance: A New Digital Platform to Combat the Decline in Ancient Studies

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The Save Ancient Studies Alliance (SASA, wwww.saveancientstudies.org) was founded in March 2020 as a reaction to the decline of the study of the ancient world in universities and high schools. David Danzig and a group of thirty graduate students and early career scholars from leading universities around the world came together to form a non-profit organization and digital platform that wants to increase exposure, inspire engagement, and provide access to the study of the ancient world. Over the past year, we have already organized digital reading groups, live events, social media campaigns, archaeogaming sessions, and more. In this paper, I will give an overview of what SASA is, what it is currently doing, and what it hopes to do in the future. We believe digital humanities are the perfect way to engage with the general public. In this presentation, I will give an overview of our current and future digital projects in the hopes of demonstrating that an organization like SASA is not only useful to us but vital if we want to save Ancient Near Eastern Studies and the field of Ancient Studies in general within academia.

Sharing Syria in 3D: A Collaborative Framework for Archiving and Annotating High Resolution 3D models of At-Risk Cultural Heritage Sites

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3D models have become common-place, but are rarely shared or hosted in a way which preserves their complexity or enables collaborative use. File size, arcane formats, and ever-shifting proprietary software dependencies present significant barriers to the use of 3D data outside of the creator's computing ecosystem. We build upon recent virtual reconstruction projects in Palmyra, Syria. Using new reconstructions of the Temple of Bel, Baalshamin, and Tower of Elahbel—all of which were destroyed by the Islamic State of Iraq and Levant (ISIL) in 2015—we employ versatile, multiresolution web-viewers to present 3D data in an open, streamable, and interoperable framework which promises to make these important datasets accessible across devices and borders.

The International Image Interoperability Framework (IIIF) has provided a foundation on which we can view, share, and annotate images. Files are reduced to small component tiles, which can be streamed and embedded in custom interfaces living on external servers. These same capabilities are extended to 3D data using the WebGL based Three.js viewer and powerful multiresolution asset loaders like Potree and Nexus. The OpenTopography and OpenDroneMap projects have employed these technologies to great effect but have fallen short of providing accessible options. Through collaboration with the Collart-Palmyre Project, University of California, San Diego, University of Applied Sciences and Arts Northwestern Switzerland, and OpenHeritage3D, we present a system by which we can extend this new cooperative model to 3D data and media. This new method allows for close collaboration over great distances and promises to innovate the field of archaeological research in Syria and beyond.

Acoustics and Proxemics of Military *Contiones: A C*ase of Roman Fort in Dajaniya (Jordan)

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In our paper, we present the results of the acoustic and proxemic analysis of the fort at Dajaniya. At first glance, it would seem that such a small group of people (Dajaniya was built for a crew of about 500) could easily and intelligibly hear a speaker addressing them. However, the preliminary results of the Forum Romanum case (Kopij and Pilch 2019) indicate that the ability to hear depends on the background noise (BN). Due to the strong winds blowing at Dajaniya, the fort presents itself as an interesting case study, allowing us, for example, to estimate the crowd density necessary for the whole crew to be able to hear the speaker.

The analyses were conducted using a 3D virtual reconstruction. Using Catt-acoustic software, we ran simulations to establish Speech Transmission Indexes for different BN levels. Simultaneously, we experimentally established maximal visibility of different classes of rhetoric gestures.

Based on these results and using different methods based on modern observations of crowd behavior, we estimated crowd sizes. This allowed us to—estimate the number of soldiers that could intelligibly hear a speaker and see his gestures and establish whether all gathered soldiers were able to do so or not. Moreover, we compared the results with those of the analyses of the *principia* in Carnuntum and Novae.

Kopij K. and Pilch A.
2019   The Acoustics of Contiones, or How Many Romans Could Have Heard Speakers. *Open Archaeology* 5.1: 340–349. https://doi.org/10.1515/opar-2019-0021

Computer-Aided Comparison of Intermediate Bronze Age Jars 3D Scans

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The long-time standing observation of regional differences in pottery of the Intermediate Bronze Age is based on scholars' eye examination and personal interpretations. The presented research utilized a computer-aided process for morphologic analysis of 200 complete Intermediate Bronze Age jars from 57 sites across Israel. Using a computerized comparison based on empirical data, jars' regionality was validated.

The study included a 3D scan of each jar and a computerized extraction of the jar profile from its three-dimensional image. A specifically developed process compares and decides, based on mathematical calculations, the degree of profile similarity between every two jars. At the end of the process, all the jars are grouped according to the significance of the similarity or difference between them.

The computerized comparison showed that there is a clear classification of the jars' profiles into two main geographical groups—largely representing the northern part and the southern part of the Land of Israel. It was also found that the same variety of jar forms was used both for daily use in their settlements and as burial offerings. No clear change/development of jar forms during the Intermediate Bronze Age was detected.

These results suggest that the Intermediate Bronze Age people were part of a traditional and conservative culture, which preserved similar forms of jars for centuries according to regional traditions and maintained only limited ties and trade between the northern and southern inhabitants of the Land of Israel.

SESSION: 5E. The Archaeology of the Kurdistan Region of Iraq

Highland-Lowland Pastoral Links between NW Iran and Mesopotamia in the 5th Millennium BC: Dalma Ceramics from LC1 Surezha on the Erbil Plain

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Excavations of the Late Chalcolithic 1 (LC1) occupation at Surezha on the Erbil Plain have yielded highland Iranian-style Dalma impressed wares and painted wares as an exogenous component within the much larger local LC1 ceramic assemblage. These intrusive 5th millennium B.C. ceramics provide some of our earliest evidence for Chalcolithic links between the Erbil Plain and highland Northwest Iran.

To explore these inter-regional connections, we used stylistic, technological, and archaeometric analyses to compare Dalma wares from Surezha with those from the type site of Dalma Tepe in the Lake Urmia basin of Northwest Iran. Neutron activation analysis and petrography showed that Dalma-style ceramics were locally produced at both sites. Local production of foreign Dalma wares at Surezha likely reflects the seasonal presence of mobile pastoralists from the Iranian highlands.

Ethnographic accounts from the late 19th to the early 20th century suggest that this mobility pattern has deep historical roots. Until the 20th century closure of the Iran-Iraq border, semi-nomadic Kurdish tribes brought their herds to winter pastures on the Erbil plain and migrated to summer highland pastures in the Urmia basin. Similarly, between 5000 and 4500 B.C., pastoralists appear to have migrated seasonally between piedmont farming villages such as Surezha and summer grazing lands in the mountains of northwest Iran. The Surezha data thus argue for a revised understanding of LC1 inter-regional connections and the organization of early highland-lowland pastoralism in the 5th millennium B.C.

Archaeological Survey of Caves in Ākrê, Harῑr, and Şaqlāūa Regions, Iraqi Kurdistan

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From 2015 to 2017, the Upper Greater Zab Archaeological Reconnaissance project surveyed 110 caves in Iraqi Kurdistan, the first large scale survey of caves in the region. Located just 45 km from the well-known Shanidar Cave, the survey covered the southern slopes of the Ākrê Massif, the Pῑrāt Range, the southeastern slopes of the Pῑrāt Mountains, and the Harῑr Massif, as well as the Qala Qāsm Range and the Safin Massif. This lecture will present the results of this archaeological survey fieldwork; the most significant caves will be showcased, including UC 006 in Gūndk, which features mid-3rd millennium B.C. rock reliefs, the oldest in Mesopotamia. Archaeological material from surface collections was scarce, largely due to the present day use of many caves as makeshift animal pens. Lithic artifacts were found in only 20 caves, and 36 caves had diagnostic pottery fragments and other datable material such as tobacco pipe fragments, a Parthian coin, and a glass bracelet. These finds of pottery, lithics, and other objects will be presented in this paper. Most surveyed caves (62 out of 110) had well-formed speleothems, indicating that this region has enormous potential for paleoclimatic research. Preliminary results from an ongoing study on samples from stalagmites from UC 093 cave in Āşkafta carried out by the LoNAP team highlight the potential of the surveyed caves for paleoclimatic research.

Neo-Assyrian Hydraulic Engineering and the Paleohydrology of the Bastora Chai

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The diverse water resources of the Erbil Plain have inspired various water management strategies, of which the earliest known major hydraulic engineering schemes were enacted under the Neo-Assyrian Empire. During the period of Neo-Assyrian florescence, regional paleoclimate archives indicate centennial-scale shifts in hydroclimate, which likely affected water availability on the Plain. The timing, direction, and magnitude of these effects would have differed across components of the hydrologic system, and it is probable that Neo-Assyrian hydraulic works interacted with these hydrologic changes in various ways. The aims and outcomes of these hydraulic engineering projects thus offer a glimpse into how Neo-Assyrian administrators understood and weighed environmental factors among a suite of sociopolitical and economic conditions when making land-planning decisions. This paper takes the recently-discovered diversion dam on the Bastora Chai as a case study by which to examine these dynamics. The paleohydrology of the Bastora Chai is discussed in relation to that of the Erbil Plain itself, with particular reference to possible changes under reconstructed Iron Age paleoclimate scenarios. The plausible aims and apparent outcomes of the Neo-Assyrian dam and canal project are considered and compared with available scholarship treating other major Neo-Assyrian hydraulic works. Preliminary

conclusions and next steps for modeling and field research are presented.

Public and Private on the Threshold of Social Complexity: On the Use of Space in 6th-5th Millennium Tell Surezha on the Erbil Plain

Samuel Harris
University of Chicago, Chicago, IL, USA

This paper offers an analysis of domestic and nondomestic spaces in the Late Chalcolithic I settlement of Tell Surezha in the Erbil Plain of Iraqi Kurdistan. I use architectural, microarchaeological, and macroartifactual data to describe patterns of activity and access at a small village site, describe one of the few large public building complexes known from Late Chalcolithic I northern Mesopotamia, and argue that the emergence of new kinds of spaces, "public" in one sense, but tightly controlled in terms of access and use, is an important technology of elite consolidation of political power.

WORKSHOP: 5F. Preserving the Cultural Heritage of the Madaba Region of Jordan

General Progress Report: Updates and Projections (SCHEP/MRAMP)

Douglas R. Clark
La Sierra University, Riverside, CA, USA

This presentation will serve to introduce the 2021 workshop on preserving the cultural heritage of the Madaba region of Jordan and provide a general progress report on developments in the work of the Madaba Regional Archaeological Museum Project (MRAMP) over the past several months and the Madaba region in general. Global encounters with COVID for more than one-and-one-half years have reshaped everything archaeologists have attempted in the Middle East, forcing a reallocation of time and resources to remotely supervised interventions from afar. In the case of MRAMP, progress in some aspects was surprisingly significant, in others progress slowed significantly. Building on a comprehensive presentation on the history and ethos of MRAMP for the ACOR lecture series on 19 January 2021 (see below for the YouTube recording), this brief introductory lecture will lay the groundwork and create the backdrop for the presentations and discussion to follow. Included are references to the ongoing work onsite at the Madaba Archaeological Park West, home to the proposed new regional archaeological museum and locus of excavations and renovations to several structures in the park; continued developments in the current Madaba Archaeological Museum; and numerous virtual enhancements to the MRAM (Madaba Regional Archaeological Museum) website.
ACOR Lecture URL -
https://www.youtube.com/watch?v=6wX5wF3rJIs&t=27s

Renovations in the Madaba Archaeological Park West (Italian International Support)

Andrea Polcaro[1], Marta D'Andrea[2]
[1]University of Perugia, Italy. [1]Rome Sapienza University, Italy

The paper will present the contributions of Italian institutions to the renovation of the Madaba Archaeological Park West within the general framework of the MRAMP project. In particular, thanks to the participation of Italian researchers, architects and students from Perugia University and from Sapienza University of Rome, a broad range of activities related to the planning, study, renovation, and valorization of the Cultural Heritage of Madaba were accomplished during the past years. The paper will summarize the value of the interdisciplinary approach and of the international collaboration between Jordanian American and Italian institutions that still represent the main strong point of the Madaba Regional Archaeological Museum Project.

Repurposing the Current Madaba Museum (AFCP/CATF - US Ambassador's Fund)

Suzanne Richard
Gannon University, Erie, PA, USA

This presentation will focus on the progress and accomplishments in the repurposing of the current Museum housed in the Department of Antiquities Regional office in Madaba, Jordan. The work reported on occurred despite the travel restrictions due to the Covid-19 Pandemic. The purpose of the project, funded by a two-year Ambassador's grant (AFCP/CATF), was to transform the current facility into a modernized storage center that will house some 14,000 artifacts and serve as a conservation lab and study center in support of a new regional archaeological museum for the Governorate of Madaba. The renovated rooms, complete with HVAC and modern shelving and conservation equipment, have enabled the relocation of endangered artifacts from crowded, unsafe conditions to a state-of-the-art storage facility. The on-going work is focused on establishing a well-organized, inventoried, databased, and conserved artifact collection.

A More Inclusive Past for Levantine Lands: A Project Proposal and Case Study from the Greater Madaba Region in Jordan

Oystein S. LaBianca
Andrews University, Berrien Springs, MI, USA

I provide a brief overview of a recent proposal to the NEH Collaborative Program that seeks funding to initiate collaboration on interpretive scholarship and dissemination by the Hisban Cultural Heritage Project (HCHP) in collaboration with the Madaba Regional Archaeological Museum Project (MRAMP). A key argument of the proposal is that protection and development of the archaeological heritage of the Levantine lands requires far more than ramped up restoration of key heritage sites and digital wizardry. It requires that a significant measure of agency and a sense of ownership of the past be experienced by the peoples who live on and around cultural and environmental sites. To this end, the proposed project posits as a solution engaging the perspective of global history—the study of humans and their interactions with other living organisms from prehistoric times to the present. This lens on the past situates particular historical moments, peoples and places within a larger, more inclusive narrative about the human project on our planet, making the past less contentious. While the lead partners will work together on formulating this new narrative, three supporting organizations will help with obtaining host community feedback and dissemination results. The three are StoryCenter, which will assist with development of storylines and obtaining host community feedback; CyArk, which will assist with 3-D digital narration and on-line publication of key storylines; and Sela for Training and Protection of Heritage which will assist with translation of stories into Arabic and outreach to local schools and host communities.

Strategic Removal, Demolition, and Excavation

Douglas R. Clark[1], Basem Mahamid[2]

[1]La Sierra University, Riverside, CA, USA. [2]Department of Antiquities, Amman, Jordan

This presentation will focus on the strategic removal of a structure in the Madaba Archaeological Park West. Long a building the MRAMP team has assiduously avoided is a late and poorly constructed cinder-block building, often affectionately called the "Ugly Building." It is privately owned and sits on part of the footprint of the proposed new museum, and also rests atop what are likely Late Ottoman-period, Early Islamic, and Byzantine remains. The process of transferring this building from private hands to the Department of Antiquities has taken several years and, as of the writing of this abstract, is still incomplete. Once the transfer has been made, the building will need to be removed carefully so as not to impact the archaeological remains beneath it. Once that has been accomplished, a small team will excavate the newly exposed 70-80 square meters to bring the area into phase with the rest of the architecture constituting the ground floor of the new museum. Anticipating success in these endeavors, this report will treat the demolition and removal of the building, as well as excavation results.

Panelist

Barbara A. Porter

Independent Scholar, USA

Panelist representing Jordan as part of the discussion titled, Proposed Interpretive Story Lines for the New Museum.

Panelist

Timothy Harrison

University of Toronto, Toronto, Ontario, Canada

Professor Harrison will serve as a panelist for the workshop, Preserving the Cultural Heritage of the Madaba Region of Jordan.

SESSION: 6A. State and Territory in the Ancient Near East: Mapping Relationships and Challenging Paradigms

Recasting the Social Context of the Nahal Mishmar Hoard: A New Proposal for Egyptian State Power and Identity during the Early Bronze I
Nadia Ben-Marzouk
Tel Aviv University, Tel Aviv, Israel

Prior investigations into the nature of interaction between communities in Egypt and the southern Levant during the late fourth millennium B.C.E. have traditionally explored contact through the lens of culturally bounded identities tied to geographic place. More recent research on such intercultural interaction has tempered this picture, exploring the blended identities and practices that materialized as a result of the uneven interaction across the landscape of the southern Levant. This paper seeks to provide further nuance to this complex picture by reexamining specific elements of the Nahal Mishmar hoard, a cache of over 400 metal objects hidden in a cave in the Judean Desert. While the hoard has long been dated to the Chalcolithic, several lines of evidence warrant a reconsideration of such a date. As such, this paper will raise the possibility that the cache was deposited during the late fourth millennium, and reflects a complex communal identity that was the product of economic cooperation between groups in the southern Levant, Nile Valley and Delta over the course of a millennium. By reevaluating selected objects in the hoard, I maintain we can complicate our understanding of the interaction, identities, and power dynamics between individuals from Egypt and the southern Levant during the Chalcolithic and Early Bronze I.

Tizpatum: Princess, Petitioner, Prisoner
Pavla Rosenstein
Yale University, New Haven, CT, USA

When Zimri-Lim took over Mari he sought to consolidate power in the fragile Upper Habur Valley, nestled between Mari to the south-west and Išme-Dagan's stronghold centered around Ekallātum in the east. Zimri-Lim relied on a range of political tools to secure his influence in the region, including diplomatic marriages. At least ten Mari women designated as DUMU.MUNUS.LUGAL in the palace archives were married to vassal kings, and insights into their often dire fates are provided by letters sent to Mari during Zimri-Lim's reign. The marriages have hitherto been studied primarily through the lens of women's studies and in the context of other women's letters, published in ARM X (*Correspondence féminine*) and FM IV (*La population féminine des palais*). However, a closer look at Tizpatum's journey from her first mention in the palace archives through her precarious position in Šunā petitioning Zimri-Lim for troops, to her request for release from imprisonment from Ekallātum, suggests that Zimri-Lim's vassal brides also played important, albeit perilous, political roles akin to diplomatic agents. The lack of sons in the Mari archive prior to Zimri-Lim's marriage to Šibtu opens up the question of whether Zimri-Lim's "daughters" were appointed rather than biological, and used in order to help him control the Upper Habur Valley. Further inquiry into the records and correspondence surrounding Zimri-Lim's DUMU.MUNUS.LUGALs would likely yield additional insights into Zimri-Lim's political strategies in the region.

Between Identity and Imaginary: Maps, Ethnicity, and Assyro-Babylonian Worldviews
Nathanael Shelley
Columbia University, New York City, NY, USA

The creation of ethnic maps describing ancient populations is a fraught and challenging task, and while its risks and problems are known, their almost ubiquitous appearance in textbooks of all levels demonstrates the utility and importance of such diagrams. In the last decade, Assyriologists have made significant improvements to our awareness of Assyro-Babylonian geographic worldviews (e.g. Michalowski 2010, Highcock 2018, Delnero 2018). These contributions, especially relating to the conception of space and relative distance, encourage new and improved ways to approach the geographic mapping of ancient populations. This paper incorporates these ideas with a social scientific identity-alterity matrix to offer suggested techniques and an alternative way of presenting more accurate ethnic maps. It is a follow-up to my 2019 paper on the tolerance for errors in recent ethnic maps and seeks to provide solutions to the problems inciting such mistakes.

Imperial Fortresses in the Western Negev: Detecting Assyrian and Local Interactions
Heidi Fessler
Loyola Marymount University, Los Angeles, CA, USA

Fortified sites dating to the Iron Age IIC period dot the landscape of the western Negev and archaeologists tend to label these sites as "Assyrian fortresses" based on time period and location rather than on a distinct set of guidelines pertaining to material culture. This paper illustrates how the label "Assyrian fortress" overgeneralizes the diverse material culture and variety of architectural elements present at the sites, and stifles the detection of social complexity in the ancient western Negev during the Iron Age IIC. Rather than a string of Assyrianized military outposts, the western Negev was a patchwork of strongholds representative of a system in which both the Assyrian military and the local Levantine population participated.

The Decline and Fall of the Assyrian Empire in Babylonia: An Organizational Communication Perspective
Christopher W. Jones
Columbia University, New York, NY, USA

This paper investigates the changing nature of Neo-Assyrian power through a social network analysis of 3,858 letters dating from 745-612 B.C. It argues that in their attempts to prevent any official from becoming powerful enough to threaten the throne, late Assyrian kings inadvertently undermined their ability to access reliable information. The completion of the Assyrian conquest of Babylonia in 707 BC coincided with a major re-organization of the empire in which Sargon II reduced the privileges of the 'magnates', formerly powerful high officials who had dominated Assyrian politics during the eighth century, and diluted the power of provincial governors by expanding the number of provinces in order to centralize power in the royal family.

These reforms resulted in hundreds of squabbling officials competing for royal favor. Unable to independently verify much of the information provided to them, kings attempted to overcome this deficit by employing scholars, deploying *qurbūtū*-agents, playing officials off against one another, and favoring certain officials over others. This resulted in the emergence of a system of informal social

rank operating alongside formal job titles, and poor communication between the king and his officials.

In consequence, the social networks of Esarhaddon and Ashurbanipal reveal increasingly isolated rulers. This paper concludes that their inability to exercise effective control over their subordinates contributed to repeated rebellions led by Assyrian officials in Babylonia during the seventh century which eventually brought about the collapse of the empire. Paradoxically, by expanding royal power, Assyrian kings rendered themselves less able to effectively exercise it.

Pīḫatu: What Constitutes a Province during the Kassite Period?
Susanna Paulus
University of Chicago, USA

The division of Babylonia into several provinces (*pīḫatu*) is a novelty of the Late Bronze Age (around 1500-1155 B.C.E.). While several of those provinces are oriented around traditional cultic centers others are clearly new political units. Our knowledge of what constitutes a province as a political and administrative unit is still mostly informed by the province of Nippur. Nippur played a special role as the seat of the mayor deity and its governor was divergently called a *šandabakku*. It is therefore important to ask are the structures we reconstruct for Nippur the norm or an anomaly? To address this question, I will examine texts from the private archives in Babylon and Ur as well as the *kudurru*-inscriptions in the light of the evidence from Nippur, to highlight similarities and differences. Aspects discussed will include officials, jurisdiction, temple-palace-relationships, and taxation.

SESSION: 6B. Biblical Texts in Cultural Context

Eating-and-Sharing-Stories in Biblical Households and Modern Pandemics
Margaret E. Cohen
AIAR, Jerusalem, USA

Previous scholarship dealing with biblical foodways (e.g., MacDonald; Altmann) has noted the connections between food consumption and the sharing of communal stories, and how identity formation proceeds from a combination of these things. We search for identity signatures in the material artefacts of ancient foodways, and we also observe how food consumption manifests in ancient texts and how those food narratives provide additional insight into questions of self-definition. Turning to the Hebrew Bible specifically, I will examine how some biblical families "eat" and share stories. And because of our peculiar moment in the global human experience, I will consider how plague or crisis affects this critical mechanism of identity affirmation. Using examples from material and textual sources, I will show how family or household groups succeed or fail in this complex enterprise. I will conclude with a brief modern extrapolation, noting in the course of the last year some practices of household pandemic food production, consumption, and identify formation through shared stories.

'Nevertheless, She Persisted': Women and Household Economics in Ancient Israel
Cynthia Shafer-Elliott
Jessup University, Rocklin, CA, USA

The application of household archaeology has been tremendously helpful in reconstructing daily life in Iron Age Israel (ca. 1200-586 B.C.E.). The spatial analysis of domestic buildings identifies activity areas and possible gendered spaces, examining how they relate to the household economy. While the participation of each member of the household was imperative to their survival, it is the women of the household that this presentation will focus upon. Utilizing household archaeology, this paper will address the use of household space by women in relation to the household economy in Iron Age Israel and how the economic environment affected their lives. Women's experiences as found within the Hebrew Bible, which deal with the economic realities of the ancient world, will be emphasized.

The Historical Philistines and the Samson Narrative
Daniel Master
Wheaton College, Wheaton, IL, USA

The modern archaeological study of the Philistines has reconstructed the history of this ancient people from their arrival from the Central Mediterranean in the 12th century B.C.E. until their destruction by the Babylonians at the end of the 7th century B.C.E. With this context, it is worth revisiting one of the famous stories involving the Philistines, the Samson narrative. The text tells of families and weddings, feasts and festivals and, at one level, appears to fill out the archaeological picture with local color. But, as Mobley has argued, "no other narrative reads so much like a popular adventure story." Heroic characters, bawdy feasts, and a tragic end are all wrapped in a highly structured narrative by a theologically focused writer who makes no secret of the fact that the writing is taking place long after the setting of the story. This paper will examine the Samson story in light of what we now know of the Philistines, asking whether it can add insight into the world of the Philistines at the time of the writer and whether it shows some evidence of access to traditions of an earlier era.

What's Under Your Floor? Buried Bones in Philistine Households
Deirdre N. Fulton
Baylor University, Waco, Texas, USA

At Iron Age Philistine Ashkelon, there are a number of bone-pit deposits found buried in the floors of houses, courtyards, and streets. These deposits are a distinct category of faunal remains from Ashkelon for a number of reasons—yet chiefly due to the large number of deposits preserved, as well as their location in domestic dwellings. While there are no clear textual parallels associated with bone-pit deposits and few comparative examples at other Philistine sites, their presence suggests that the inhabitants of these domestic spaces placed these bone-pit deposits for commemorative purposes. This interpretation is based on the variety of deposits, volume of deposits, and the locations in which they are found. In this paper, I describe these different bone-pit deposits, discuss their connection to specific household spaces, and also consider the different kinds of behaviors associated with the private domestic spaces where these pits are located. Finally, I will discuss their contrast to Israelite domestic dwellings—in that we find little evidence for this type of commemorative behavior.

Hush Little Baby, Don't Say a Word: Rattles, Lullabies, Demons, and Dead Ancestors in the Bible and Ancient Near East

Kristine Garroway
Hebrew Union College, Los Angeles, CA, USA

Crying infants posed a problem in the ancient world. Their noise alerted baby-snatching demons, who slipped in through doors and windows, to the presence of a potential victim. In a domino-effect, the cry could also disturb the dead ancestors protecting the house, so much so that they would up and leave. Without protection, the infants were in great danger. Caregivers utilized many anti-crying techniques in order to protect their families. This paper will first explore two different methods of hushing babies: rattles and lullabies. Anthropologically, the two methods served both a practical and ritual function; they quieted the baby and invoked divine help in the process. After presenting the archaeological backdrop, the paper will examine the Pesach narrative, investigating how the ritual described in Exodus 12: 22–23 might be a historicized ritual meant to combat the same concerns seen in the archaeological record.

SESSION: 6C. Archaeology of Lebanon

The North Lebanon Project: Exploration and Revaluation of the Archaeological Heritage of the Region of Koura

May Haider[1], Marco Iamoni[2]
[1]Lebanese University, Beirut, Lebanon. [2]University of Udine, Udine, Italy

The Italian-Lebanese archaeological mission in the region of Koura, north Lebanon, started in 2017 as a joint cooperation between the University of Udine and the Lebanese University, in collaboration with the Directorate General of Antiquities of Lebanon and the Institut français du Proche-Orient (Ifpo)-Beirut. Over the last four years, intensive and extensive surveys covering an area of more than 100 sq km, in addition to specifically aimed research, allowed the North Lebanon Project (NoLeP) team to start to reconstruct the regional settlement patterns from the time of the earliest human presence up to the area's recent history. Though several historical references and sporadic investigations suggested that the region was of the utmost importance for the archaeology of Lebanon—and more generally of the Levant—no systematic investigation had been carried out thus far in the inner area of Koura. The NoLeP mission changed this and managed to build a coherent and a complete picture of the numerous phases of occupation that characterized the region.

This paper presents a first reconstruction of the settlement dynamics characterizing the region—especially during the Bronze Age, Iron Age, and Classical epoch. Furthermore, it provides a first attempt to set the basis for a first definition of the local archaeological heritage as a potential crucial resource for the implementation of plans aimed at stimulating and empowering sustainable heritage strategies in the region.

The Ancient Communication Network in the Northern Mount Lebanon

Zeina Georges Haddad
Lebanese University, Zahle, Bekaa, Lebanon

The Ancient Communication Network in the Northern Mount Lebanon is the topic of my PhD in archaeology, which I recently submitted to the Lebanese University. During five years of fieldwork and through consulting old and new documentations, I had the chance to experience the richness and complexity of the Lebanese ancient road network—a largely unknown and understudied topic. In my research, I found several mentions regarding the ancient paths in travelers' books from their visits to Lebanon. In these accounts the travelers sometimes described the trails and paths they had to take through the rough landscape. While some punctual studies of the network were undertaken recently, a global and in-depth study was still lacking.

In my presentation, I will review the study's synthesis—presenting the ancient network through several older maps via the Geographic Information System (GIS) program. This study largely revealed path types, their uses, and sometimes their histories and construction dates. Some tracks were for muleteer, while others were for wheeled vehicles (the muleteers and pack animals played an especially important role in the opening of the paths as well as their preservation through the centuries). During research, many historical and archaeological remains were surveyed on and nearby the paths, some of which directly related (such as bridges and khans). Althought it was difficult most of the time to date the roads and paths, we were lucky to find some pottery sherds and iron animals' shoes, which gave us an idea of possible periods during which some roads and paths were used.

The Lebanese-Italian Archaeological Project in the Region of Tyre: Research Activities and Cultural Heritage Protection

Marta D'Andrea[1], May Haider[2], Ali Badawi[3]
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In 2019, a new Lebanese-Italian collaboration was established to undertake a survey in the region to the south of the Tyre peninsula, in the areas of Shawakeer and Ras el-Ain. These areas, which are nowadays part of the Tyre Coast Nature Reserve and were, in the past, key to the development of the ancient settlement of Tyre through the ages, are often labelled as Palaeotyre in ancient written sources.

The main research objectives of the Lebanese-Italian Archaeological Project in the region of Tyre are to explore and understand 1) patterns of settlement and land use, 2) water management strategies connected with the availability of fresh water, and 3) the ancient use of the littoral for anchorages and ancient harbors as well as for subsistence through time in this critical area of southern Lebanon.

Notwithstanding the impossibility to carry on fieldwork due to the pandemic, in 2020 the international team carried out research remotely and laid the foundations for a more ambitious research project to start in 2021—which pivots around an integrated methodological approach, an extension of the survey area, and targeted sondages. In addition, Cultural Heritage Resources management in the Project's areas is a key component of the Lebanese-Italian team's program in the region of Tyre.

This paper will report on new results of the 2020-2021 research activities carried out remotely and on site and present a vision and future steps for archaeological and cultural heritage protection and promotion in the Project's area.

"May You Bless Her!": Religious Insights from Levantine Phoenician Women's Votive Inscriptions

Helen M. Dixon
East Carolina University, Greenville, NC, USA

The corpus of Phoenician-language votive inscriptions from the 1st millennium B.C.E. Levant encompasses inscribed figurines, statuettes,

vessels, buildings, and graffiti (a wide variety of gifts to more than a dozen gods and goddesses). This paper will examine the small subset of this collection written or commissioned by women, as best we can determine. While we can assume socially performed gender and linguistic gender did not always correspond, narrowing the data to those inscriptions that feature relevant feminine pronouns and verbal forms (where present) or personal names ending in feminine morphological markers allows an incomplete but functional grouping. Rather than looking at the theophoric elements of votive dedicants' names as previous studies have done, analysis of other religious and social patterns among these votive objects and the content of their inscriptions will be presented. In particular, the interplay of the purpose of the votive (thanking or requesting), the selection of the offered object, and any explicit genealogical, geographical, or professional information given for the dedicant will be discussed. Given the limits of this incomplete and relatively elite group of individuals, this study will challenge previous characterizations of Phoenician "women's religion" and deepen our understanding of the diverse range of women's religious preferences, choices, and practices along the 1st millennium B.C.E. Levantine coast.

SESSION: 6D. Digital Archaeology and History II

Reconstructing the Urban Space of Nea Paphos through Comparison with Regularly Planned Mediterranean Cities Using 3D Procedural Modelling and Network Analysis

Anna M. Kubicka[1], Anna Fijałkowska[1], Paulina Konarzewska[1], Wojciech Ostrowski[1], Artur Nowicki[1], Łukasz Miszk[2], Ewdoksia Papuci-Władyka[2,3]
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The main goal of this paper is to show the first results of analytical modelling of ancient urban planning in the cities established on Hippodamian grid streets, performed within the project, *MA-P Maloutena and Agora in the Layout of Paphos: Modeling the Cityscape of the Hellenistic and Roman Capital of Cyprus*.

The possible results of procedural modeling can offer insights into the so-far undiscovered parts of Paphos, the allocation of streets, and the determination of the function of individual areas. Those rules could be based on urban layouts and functions of similar regular Mediterranean (model) cities of the Hellenistic period.

For model cities, such as Olynthus and Priene, vector street networks were obtained from published city plans (Cahill 2013; Dietrich 2016). These networks were subject to spatial analysis using the Space Syntax and Network Service Area Analysis methodologies. Numerous reconstructions (in several variants) of the city street network for Paphos were made by applying procedural modeling in the CityEngine environment.

The comparison of values of the space syntax attributes of street sections and the results of network analysis allow for the probability assessment of the hypotheses of urban assumptions obtained with the use of procedural modeling rules and indication of the most probable of them.

Cahill, N.
2013   Household and City Organization at Olynthus. Yale University Press Scholarship Online.
https://doi.org/10.12987/yale/9780300084955.001.0001

Dietrich, N.
2016   Exposed Bedrock in Miletus and Priene: An Overlooked Aspect of Hellenistic and Imperial-Era Urbanism. *Revue archéologique* 2: 303–328.

Digital Games from the Ancient World: The Digital Ludeme Project

Walter Crist
Maastricht University, Maastricht, Netherlands

The games of the past are an important part of the cultural heritage of humanity. The Digital Ludeme Project seeks to document the knowledge of ancient and traditional games from around the world, to use Artificial Intelligence techniques to reconstruct the rules of play, and to make them playable in an open-access platform, *Ludii*.

Our games database—which documents the artifacts, texts, and artistic representations of games—provides an interface to visualize the geographic and chronological distribution of games, and it is the largest collection of such information in a freely available, online format. While the project itself is focused on games worldwide from 3500 B.C.E. to the present day, the board games of ancient Southwest Asia and North Africa (e.g., senet, mehen, the Royal Game of Ur, and 58 Holes) are some of the most important for research on early gaming heritage and are highlighted in this talk as models for collecting data on and displaying the heritage of games. The work of the Digital Ludeme Project is situated at the nexus of scholarly research on games, intangible cultural heritage preservation, and public engagement with archaeology. While the database serves as a gateway to the game-playing software, it also serves as a research tool, linking users to previously disparate scholarly material about the relevant games. Issues of misinformation in popular scholarship on games are also addressed, highlighting the need for the data-driven approach of the Digital Ludeme Project.

Oxus Elites: A Spatial and Network Analysis of Monumental Buildings of the BMAC

Teagan A. Wolter
University of Chicago, Chicago, IL, USA

Much of what is known about the Bactria-Margiana Archaeological Complex (BMAC) comes from the large-scale excavations of its monumental buildings and from its impressive repertoire of finely made goods that often use exotic materials. These finds point to the presence of elites of some sort in the ancient oases of Central Asia. The role of these elites within the cultural context, however, is not well known. This presentation will begin to answer the questions surrounding the activities of the BMAC elites through a spatial analysis of monumental structures at the sites of Gonur Depe, Dzharkutan, Sapallitepa, and Dashly 3. I will show how we can use relatively simple programming and free-to-use software to digitally put the artifacts back in their contexts and allow these sites to be directly compared more readily. I will further demonstrate connections between various rooms through a social network analysis. Through this, I hope to create of picture of what it meant to be an elite in the BMAC and flesh out the ways in which political power was produced and reproduced in this time and place.

The Social Dilemma: How Social Media Platforms Accelerate Antiquities Trafficking and Control Online Communities

Katie A. Paul[1,2], Amr Al-Azm[3,4]
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For decades, the illicit trade in antiquities has largely been observed from the outside. But the growth of online black markets on social media platforms—like Facebook, YouTube, and TikTok—have provided a window into aspects of the illicit trade that have long been inaccessible to those not engaged in the trade. These online spaces help illustrate how subsistence looters, middlemen, and organized networks intermingle at an accelerated rate thanks to technology platforms that connect the world—including for traffickers. Investigative and digital ethnographic research into online trafficking communities has generated new insights into how traffickers become online influencers and, in doing so, helps to control the material that is offered in their digital black markets.

Social media platforms have vastly expanded the local market reach for looters and traffickers. Platforms like Facebook have updated their policies but not improved major failures in their efforts at policy enforcement, allowing digital black-market groups to grow. These 21st-century online trafficking communities capitalize on big tech algorithms to maximize reach. In some cases, looters and traffickers have utilized the "content creator" tools of social media platforms, like YouTube, to monetize their activity, finding ways to profit from looting even without making a sale. Understanding the technology policies that govern the digital sphere and examining how trafficking has evolved online can help provide heritage experts and authorities with tools to more effectively combat the illicit antiquities trade.

Following in Sennacherib's Footsteps, Literally: Hits and Misses of Architectural Spatial Analytical Computer Models in Assessing Movement, Permeability, and Access in the Southwest Palace

Tracy L. Spurrier
University of Toronto, Canada

In this follow-up talk to a 2016 paper, I present my expanded and final doctoral research using multiple architectural spatial analytical models to explore the architecture of Sennacherib's Southwest Palace at Nineveh. This palace was constructed around 700 B.C., and the walls were decorated with narrative reliefs documenting the king's military and engineering feats. The precise relief placement within the architectural layout of the palace was presumably designed to act as a narrative, guiding visitors through an arrangement of rooms with content they were allowed to access dependent on their status. But how do we know a person's actual path? My early research consisted of j-graph tree models produced in the AGRAPH computer program—specifically looking at access and depth of palace spaces from one origin point. Space Syntax was invented in the early 1980's, and a number of scholars have since questioned whether or not it is still relevant and useful for analyzing architecture. For my expanded research, I chose to examine data for three different entrance points of the Southwest Palace to explore permeability and access variations: 1) The Throne Room Courtyard H, 2) The Western Terrace Suite, and 3) a back-exit descending tunnel. I then used the program DepthMap to assess access, depth, permeability, and possible movement by running models of isovist views, step-depth maps, visibility, connectivity, axial lines, and, finally, simulated movement using digital agents. Some of the models produced useful data, some inconclusive, and some of the outcomes were fairly obvious conclusions.

SESSION: 6F. Career Options for ASOR Members: The Academy and Beyond

"Be Ready to Pivot": How Your New Skills in Being Nimble May Come in Handy

Sarah K. Costello
University of Houston - Clear Lake, Houston, TX, USA

How many times over the past 18 months have we been told to "be ready to pivot," as the landscape around us changed in unexpected ways? As exhausting as it has been to make daily high-stakes decisions with inadequate information, and to learn numerous new skills in academic and professional environments which changed overnight, the agility and perseverance that got many of you through the past year and a half will serve you well as you chart your career.

In this paper, I share experience from my own career path, which has included research librarian, city government and international diplomacy, contingent faculty, and public outreach work. To get to my tenure-track job, I undersold my skills, hid my professional experience, and pretended to be one particular type of scholar, because that was what the academy demanded.

I think that paradigm is shifting. From my current position, I see an academy full of people who don't see what's coming and don't know how to prepare for it, or how to prepare their students for it. I argue, with none of the skills of an actual futurist, that looking forward, the winding path is the more likely career path. The ability to be nimble and ready to pivot, to see a path forward and offer your skills as a solution, will be of increasing value.

Thriving and Surviving on the Edge

Sarah W. Kansa, Eric C. Kansa
AAI / Open Context, San Francisco, CA, USA

In 2001, with newly minted doctoral degrees in hand, we set out on alternative career pathways that led to the development of Open Context, an online data publishing platform for archaeology. In this presentation, we discuss the many factors that led to our choosing this path, the challenges we have faced along the way, and the benefits of doing this work through an independent non-profit technology organization. We also discuss how this work is situated both in the academic world and in the ever-growing "alt-ac" community.

Careers in the Conservation of Cultural Heritage

Jeanne Marie Teutonico
Getty Conservation Institute, Los Angeles, CA, USA

The world's cultural heritage is extremely diverse in expression, scale, and materiality. Equally diverse are the knowledge and skills required to conserve this heritage in ways that are sustainable and meaningful for future generations. Of course, conservation does involve the repair and retention of physical fabric—but not divorced from a consideration of the cultural, social, and political forces that both created it and continue to affect the way it is valued, cared for, and used. If anything, the risks to heritage have only become more acute in recent decades through factors such as conflict and political instability, rapid urbanization, climate change, and generally diminishing resources for heritage conservation.

By its nature then, conservation is an inter-disciplinary undertaking that requires technical and scientific skill but also the ability to work across boundaries, to communicate with a variety of audiences, and to arrive at negotiated solutions. This presentation will discuss the various professional profiles involved in the conservation of both built heritage and museum collections, the background and academic training required to achieve recognized competence, and the types of career opportunities available in both the public and private sectors.

Buying In or Selling Out: Adapting to an Administrative Role in Post-Secondary Education

Thaddeus J. Nelson
Stony Brook University, Stony Brook, NY, USA

Changes in the opportunities available in academia are impacting the lives of young scholars. Increasingly, they must look for careers outside the traditional paths of research or teaching. Post-secondary administration remains a potentially attractive career path due to the familiarity and continued connection to the academic community. However, administration requires skills and work experience which young scholars may be unfamiliar with and have few chances to develop.

In this paper, the author presents a personal experience transitioning from a research track to university administration. Focus is given to the social and emotional impact and the differences in expectations from academia. The paper concludes by suggesting ways to prepare young scholars for an administrative career during their time as students.

SESSION: 7A. Archaeology of Cyprus I

Wood, Grapes, and Meds--Archaeobotanical Evidence from the Groundstone Assemblage at Neolithic Ais Giorkis

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Residue analyses from groundstone artifacts have proven to be a powerful tool for fine-tuned resolutions of many economic issues. While frequently incorporated into archaeological interpretation, this method is relatively new to the island of Cyprus. Here we report on the results of a small number of residue washes from Ais Giorkis, an upland site in the Troodos Range. Pollen, phytoliths, and starch residues suggest diverse activities and practices directly or indirectly linked to the forest. These include the use of wooden pestles for food and condiment processing, possible evidence of grape consumption, and use of traditional ethnomedicines. Of particular interest are elevated levels of *Caryophllaceae* pollen from a grinding slab. Plants in this family are known for their anti-viral, anti-bacterial, and anti-inflammatory properties and are being studied in modern cancer research. While the current samples are too small to draw conclusions about early winemaking or knowledge of medicinal remedies, further investigations at Ais Giorkis and contemporary Cypriot occupations will expand on these findings. The results will be articulated with other data to help establish Ais Giorkis' role in early Cyprus and within a wider landscape examining the spread of Neolithic concepts from their continental cores to the Mediterranean islands.

Regional Mineralogical and Technological Characterization of Cypriot Iron Age Pottery: A View from Tel Dor

Paula Waiman-Barak[1], Anna Georgiadou[2], Ayelet Gilboa[3]
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Excavations at Tel Dor, a Phoenician site on the northern coast of Israel, produced one of the most varied and best stratified assemblages of Cypriot Iron Age ceramics ever found outside of Cyprus. We are engaged in a long-term investigation of the nature of socio-economic liaisons between Dor and Cyprus, inter alia, by identifying through ceramic typology and petrography the specific Cypriot production centers that sent their products to Dor. In this paper we focus on the analytical identification of production centers first suggested by macroscopic observations (we address temporal trajectories and cultural implications only preliminarily). The results indicate that the Cypriot vessels that reached Dor were produced only at Salamis, Kition, Amathus, and Paphos and that the vista of imports at Dor kept changing throughout the period under consideration. This is the most comprehensive analytical study of Cypriot Iron Age ceramic fabrics to date, and it has the potential to build a foundation for provenance studies of Cypriot Iron Age ceramic fabrics as well as the interconnections they embody. It is constrained, however, by the fact that we studied mainly production centers represented at Dor.

Storage and Stages: Hallmarks of Early Monumental Architecture at Late Bronze I Phlamoudhi-Vounari, Cyprus

Mara T. Horowitz
SUNY Purchase, Purchase, NY, USA

The small (1 ha) site of Phlamoudhi-*Vounari* was built in LC IA:1 and abandoned early in LC IIA (a lifespan of ca. 200 years). This paper presents an updated spatial analysis using new preliminary 3D modeling (and an update on digitizing the site), suggesting that the site functioned as a stage during community gatherings (and greeting visitors) as well as a storage facility for community surplus. While originally built with an open plan, the 16x16 m stone façade, platform, and circuit wall added to *Vounari* in Phase IV restricted access to the hilltop as well as created a further imposing effect. Using a viewshed approach, this paper examines the monumental north façade and broad plaster ramp as seen from the seaward approach. *Vounari's* overall plan is unique on Cyprus, but the plastered entrance ramp, double gateway, and significant storage capacity (pithoid jars) do have parallels at other Cypriot sites. Worldwide, sites with storage and stages arguably functioned as centers for ceremonial community activities that reinforced the corporate identity—even as an elite class was beginning to emerge and increasingly circumscribe the space and the storage of surplus for themselves.

Integrated Archaeological, Architectural and Urbanistic Research Using Modern Methodology in Service of the 3D Reconstruction of Nea Paphos Cityscape

Ewdoksia Papuci-Wladyka[1,2], Urszula Wicenciak-Nuñez[2], Wojciech Ostrowski[3], Lukasz Miszk[1]
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The ancient city of Nea Paphos—the Hellenistic and Roman capital of Cyprus and a UNESCO World Heritage site since 1980—has been intensively researched for decades, with 55 years of Polish archaeological activity. The new Polish project run in Paphos—with particular focus on the residential quarter of the city (Maloutena) and the main square (the Agora)—is providing new insight into the cityscape and re-evaluating previous findings through the use of new discoveries, technologies, and solutions available from modern archaeological practices.

An interdisciplinary research team, including representatives from different fields (archaeology, geophysics, and architecture as well as specialists in remote sensing, procedural modelling, and spatial analysis), will reconstruct the cityscape in diachronic perspective. The 3D reconstructions will be done for the four main periods in the development of the city—the Early and Middle Hellenistic, the Late Hellenistic, the Early Roman, and the Middle and Late Roman periods. The reconstruction will be based on the collections of old data on source query, re-examination of previously excavated material (especially pottery and coins from selected deposits), and new data obtained from small-scale excavations in selected crucial points. First results, especially emerging from the research concerning the layout of Paphos streets, will be presented in this paper (for results of procedural modelling and network analysis see Kubicka et al. in this conference).

The Hidden Idea Behind the Design of the Red Castle Tunnel During the Italian Colonization of Libya

Aida M. Ejroushi
Texas Tech University, USA

The Red Castle (Al- Saray al-Hamra), an ancient monument that lies at the heart of Tripoli overlooking the sea, might be viewed as a symbolic representation of the city's long and tumultuous history. Because of its geographical importance as a port city along Africa's northern coast, Tripoli represents a strategic stronghold for outside forces seeking control of the region. As the city's dominant political powers (colonization and dictatorship) changed, so did the city's cultural fabric and its structures' overall esthetics. In particular, the Italian colonization of Libya between 1911 and 1943 brought about significant changes to the city and, specifically, the Red Castle. During this period, the Italians restored the castle and created a tunnel that joined two portions of the coastal road. Until its destruction in the 1970s due to redevelopment projects, the castle and tunnel were characterized by its functionality and unique design. However, the inspiration and intent behind these alterations have remained mostly obscured, with very little evidence to support assertions made regarding the motivations behind these transformative projects. This study examines the two alterations made to the Red Castle during the 1920s and the 1930s. Using existing research and a new visual analysis of the structures, this study provides evidence that the two Italian restorations were based on replicating a professionally hidden mixture of architectural elements from Roman ruins located in Italy. In addition, this study also explores the implications of these interventions within the context of historic preservation and colonialism.

How Much is Too Much? Visitor Carrying Capacity of Petra Archaeological Park

Mohammad M. Alazaizeh
The University of Jordan, Aqaba, Jordan

Expanding visitation to Petra Archaeological Park in Jordan increasingly challenges the park managers charged with balancing their dual tasks of resource protection and high-quality tourism provision. Overcrowding is considered one of the main issues affecting both the park's resources and visitors' experiences. Determining the appropriate level of visitor accommodation for a site is often addressed through the concept of carrying capacity. Contemporary approaches to carrying capacity rely on the formulation of indicators and standards of quality of cultural heritage and visitor experience. Using normative theory and visual research methods, this paper examines crowding standards of visitors at Petra Archaeological Park.

A Web GIS for Archaeological Artifact Recovery

Karen F. Adkins
Pennsylvania State University, USA

Archaeological sites and collections have long been targets for treasure hunters and looters seeking valuable artifacts to collect and sell. The objective of this presentation is to demonstrate a prototype web-based geographic information system (GIS) that presents a spatial solution to the problem of reporting and tracking lost artifacts. This solution uses Esri's cloud-hosted technology, ArcGIS Online with ArcGIS Enterprise, for creating a GIS database and configuring web applications to be used by the public and archaeology site and collection managers in contributing information about stolen artifacts and sightings.

The Tel Kabri Wall and Floor Paintings: Microcosms of Mediterranean Middle Bronze Age Trade and Interconnection of Canaanite Palatial Economies

Christine M. Weber
The College of Wooster, Wooster, OH, USA. The University of Cincinnati, Cincinnati, OH, USA

The Tel Kabri wall and floor paintings offer a unique opportunity for the investigation of Middle Bronze Age exchange and interconnectedness. Their previous identification as Aegean in style by multiple authors demands the elucidation of the systems of elite, palatial trade and interconnection which created the paintings. More than just beautiful pieces of art, the wall paintings of Kabri are representative of inter- and extra-regional trade and interaction between the Eastern Mediterranean and Aegean during the Middle Bronze Age and advocate for a complex society administered from Kabri. Such suggestions allow for the investigation of other administrative elements at Kabri, which will allow the reconstruction one system of Canaanite palatial economics. The present research identifies main elements of Middle Bronze Age palatial economies across space—including trade, animal husbandry, ceramic and textile production, architectural storage, and literacy—in order to reconstruct a possible form of administration and economy at Kabri. Furthermore, the identification of a Canaanite economical system benefits from regional comparisons, such as with Syrian Hazor. An identified difference between palatial economy, administration, and possible social agency engenders many questions in relation to the presence of the apparently cosmopolitan Kabri wall paintings; the present research suggests theoretical models, including peer-polity interaction and distance-parity, to account for these differences. Nevertheless, this new interpretation of the Kabri paintings as manifestations of Canaanite palatial economics allows for a nuanced understanding of Middle Bronze Age trade, interaction, and administration.

Writing in the Early Late Bronze Age Southern Levant: New Early Alphabetic and Hieratic Inscriptions from the Austrian Excavations at Tel Lachish (Israel)

Felix Höflmayer
Austrian Academy of Sciences, Vienna, Austria

The recent Austrian excavations at Tel Lachish have unearthed an early alphabetic inscription and a hieratic inscription from early Late Bronze Age layers, which are of exceptional interest for Egyptian-Levantine connections in the mid-2nd millennium B.C. The early alphabetic ostracon was found in Stratum S-3, which is radiocarbon dated to the mid-15th century B.C. (Höflmayer et al. 2021). The hieratic inscription was discovered not far away in the same area in Stratum S-2, radiocarbon dated to the late 15th or early 14th century B.C. (Wimmer et al. forthcoming). Both inscriptions come from secure archaeological contexts and shed new light on the development of the early alphabet as well as on the practice of hieratic writing and record keeping in the region. This paper will discuss the historical implications

of these finds on Egyptian-Levantine connections and early writing at Tel Lachish.

The Potential and Perils of Non-Destructive Organic Residue Analysis in the Field. Development of Solvent-Based Protocol Yields Data in Field Lab Experiments Consistent with Institutional Lab Testing on Cosmetic and Other Artifacts

Betty Adams[1], Mario Zimmerman[2]
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The Archeochem group of ASOR developed a recommended protocol for a best practice in organic residue analysis in 2017, replicable in an institutional lab setting. We are attempting to track compound presence on cosmetic artifacts through time (Late Bronze Age to Persian periods) without destroying the existing artifacts. We tested the viability of data collection with non-destructive analysis by executing a series of institutional lab tests on cosmetic artifacts stored in museums and various fragmented artifacts excavated in the field (cosmetic or otherwise). The tests demonstrate field residue analysis's ability to yield complementary results for solvent extractions processed by LCMS and simultaneously showed separation of artifacts based on chemical signatures like those obtained in a controlled lab environment.

We tested the sequential solvent protocol developed by the Ancient Residue lab at Washington State University in the field at Khirbat al-Balu'a during excavations in 2019. The results demonstrated that certain solvents yielded better data overall—both in the field and the lab—and that results are comparable across excavation sites. The data sets collected allow us to diagnose based on chromatograms, principal component analysis, and partial least squares discriminant analysis. The results linked artifacts with chemical signatures and similar typology and show chemical continuity by time period.

The Stratified Pottery of Khirbat al-Balu'a in Regional Context

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Khirbat al-Balu'a is a large, 16 ha site located south of the Wadi Mujib, in Jordan, with occupational remains from the Bronze and Iron Ages to the Hellenistic, Roman, and Islamic periods. Long-term project goals include building a ceramic typology of the Balu'a region and to establish the sequence and expanse of settlements at Khirbat al-Balu'a. The Balu'a Regional Archaeological Project (BRAP) conducted field seasons in 2012, 2017, and 2019, during which stratified occupational layers were excavated in three areas: the *qasr* (the monumental structure at Balu'a), an Iron Age II period domestic structure, and a section of the Iron Age defense system. We present a preliminary survey of the stratified pottery from these occupational horizons as they relate contextually intra-site and with 14C sampling, and we suggest their typological placement in the larger regional ceramic traditions of the southern Levant.

Geophysics and Geoarchaeology: Reconstructing the Past Coastline and Related Municipal Infrastructure of Northern Caesarea Maritima

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Caesarea's coastline north of the ancient harbor contains many significant municipal monumental architectural features such as aqueducts, major sewage channels (cloaca maxima), anchorages, towers, and walls. Many of these features are partially eroded due to a changed coastline. In this multidisciplinary effort, a coastal seismic survey was performed—in tandem with sediment coring—and compared to underwater and coastal archaeological data. The geophysical data successfully highlighted a shallow-water sediment trap, from which 4 meters of core—covering a period of more than 2,000 years—was retrieved from only a 4-meter water depth. Underwater finds were assessed regarding their original position, whether marine or terrestrial. For example, in 2010, a patch of fine silty mud (suspected to be related to the ancient sewage effluent) was identified ~600 meters offshore of the cloaca, a distance beyond what would be expected. Also, rubble layers—without any clear maritime purpose—blanket portions of the coast. Using these markers, in combination with the sedimentological coring sequence and geophysical survey, we present a revised estimate of past coastline positions at Caesarea. This study will help to gain a more comprehensive understanding of Caesarea and its surrounding coastal geomorphological history before it may be lost forever.

WORKSHOP: 7D. Best Practices for Digital Scholarship

Digital Practices, Workflows, and Scholar-Led Publishing

William Caraher
The University of North Dakota, Grand Forks, ND, USA

Over the past thirty years digital practices have significantly changed archaeological workflows. The distinctive character of digital data now characterizes the processes associated with archaeological knowledge-making from the trench or survey unit to the final publication. This shift has coincided with fundamental changes to scholarly publishing, which is negotiating the strains of reduced library budgets and challenges linked to the growing pressure and expectation of open access publishing models. At the same time, recent years have seen a shift in the academic job market away from tenured and tenure stream positions towards a more contingent and precarious workforce. It is hardly surprising, then, that the confluence of these unsettled conditions has provided a critical context for reconsidering the role digital practices play in scholarly publishing. This paper will sketch out the role of small-scale, scholar-led, open access publishing amid the increasingly digital character of archaeological publishing, the changing ecosystem of scholarly publishing, and the growing instability and precarity of careers in academic archaeology.

Public Access to Digital Content in Small University Museums

Lissette M. Jiménez
San Francisco State University, San Francisco, CA, USA

Archaeologists and museum professionals are constantly thinking of new and innovative ways to share digital content with broader audiences. Small university museums often deal with limited budgets, constrained university online platforms, and scarce resources that require creative and resourceful solutions. Nevertheless, collections data and information about digital projects is highly prioritized by these institutions given their ability to reach wider audiences and connect to educational curriculum. At San Francisco State University,

the Global Museum uses DIVA, an open digital collections archive built and managed by Academic Technology at San Francisco State University, to make information about its collections accessible to the campus community and broader public. Recent collaborations with outside partners from the University of California-Berkeley's Book of the Dead in 3D Project and local historical societies have also expanded the Museum's public outreach and provided a new platform to present additional collections information that can be challenging to publish in traditional publication platforms.

Publishing Digital Content as an Early Career Researcher
Kevin Garstki
University of Wisconsin -Oshkosh, Oshkosh, Wisconsin, USA

In addition to determining the most appropriate platform to disseminate work, late-stage graduate students and early career researchers must also navigate the politics of professional advancement. At a time when more platforms are available to publish content (data, articles, monographs), those readily accessible to early career researchers may not hold the same academic capital as more traditional modes of publication. What formats or platforms are viewed as "worthy" by hiring or tenure committees? What archaeological work is deemed important? I will discuss some of my own experiences with data and open access publishing which speak to many of the issues faced by early career archaeologists. It is a challenge to navigate the growing desire for easily available and open access data and publications, which often conflicts with disciplinary institutions.

Integrating Digital Archaeological Data with Conventional Publications
Sarah W. Kansa
AAI / Open Context, San Francisco, CA, USA

In this panel, I will share thoughts on hybrid publishing from my role as an editor for Open Context, a data publishing service for archaeology.

Making the Museum Accessible, from Artifacts to Archives
Kiersten Neumann
Oriental Institute, University of Chicago, Chicago, IL, USA

The digitization of a museum's collections—artifact and archival—is invaluable, not only with respect to preserving the collection for posterity, but also to allow for these incomparable primary-source materials—which speak to the history of archaeology and collection practices and provide object information and context (alongside data and photographic documentation of the archaeological objects themselves)—to be accessible. While many institutions housing such materials were already engaged in attempts to increase accessibility by way of open-access platforms, the COVID-19 pandemic reinforced the urgency and necessity as well as benefits of the digital availability of such resources—not only for academic research but also in order to engage with the wider public in conversations of cultural heritage, collection and acquisition practices, and museum studies. Since 2005, the Oriental Institute Museum has been using EMu (Electronic Museum), linked to a public website portal, for research and object-based collections management. Additionally, Oriental Institution Museum Publications are provided both in print and online for complimentary download. While time-consuming and costly, the positive benefits of these endeavors are without question. We

continue to explore opportunities for growth, improvement, and cross-institution digital collaborations and partnerships as more and more collections are brought online.

Database as Dig Report: Exploring the Possibilities
Jennie Ebeling
University of Evansville, Evansville, IN, USA

In this presentation, I will discuss my goal of publishing nearly 100% of the archaeological data from a survey and excavation project I co-directed in Israel in the simplest, least expensive, and most user-friendly way possible. While no complete solution has yet been identified, I am exploring the possibility of publishing the project's database (an open, image-heavy, web-based application) together with a traditional final report in a way that will allow them to be archived together while also allowing changes and additions to the living database. I will offer my perspective as a non-technical person with limited institutional support who is faced with the challenge of making complex archaeological datasets open and accessible.

Moderator
Charles E. Jones
Penn State University, University Park, PA, USA

Best Practices for Digital Scholarship (Workshop): Perspectives on publishing digital content. Panelists will discuss the opportunities and challenges in publishing digital content, including coordinating the dissemination of vast amounts of digital data, linking data within projects and across projects, citing digital content, and gaining professional recognition for digital publications. Panelists include data creators and publishers who will share their visions for the future of archaeological publishing.

WORKSHOP: 7E. Reintegrating Africa in the Ancient World (*Workshop*)

Decolonizing Nubian Cross Cultural Interactions
Carl R. Walsh
The Barnes Foundation, Philadelphia, PA, USA

The study of Nubian cross-cultural interactions has largely focused on the colonial and imperial frameworks of the Egyptian occupation of Nubia during the New Kingdom (1550-1069 B.C.). These interactions were traditionally viewed through asymmetrical and Egyptocentric approaches, in which Nubians were largely passive receivers of imposed Egyptian cultural practices. Recent approaches to cultural entanglement have helped to reclaim Nubian agency in their engagements with Egyptians, but continued work is needed in decolonizing cross cultural processes in Nubia across time. This paper considers how diplomatic relationships in the Middle Bronze Age (2000-1550 B.C.) between Egypt and Kerma facilitated symmetrical, cooperative interactions between Nubian and Egyptian elite groups. Material evidence of Kerman/Egyptian contacts – board games, cosmetics, and furniture - are argued to document Kerman adoption and adaption of very select forms of Egyptian court habitus. These cultural transmissions were facilitated by travelling diplomats and embassies, who would have formed social relationships with different elite groups and royal courts. It is argued that these relationships allowed Kerman and Egyptian courtiers/elites to establish shared forms of practice and identity that transcended cultural differences, while also facilitating regional forms of identity within Kerma society.

Museums and Colonialism: Decolonizing the Interpretation of Ancient Nubia at the Museum of Fine Arts, Boston

Denise M. Doxey
Museum of Fine Art, Boston, Boston, MA, USA

Thanks to its excavations in the first half the twentieth century, the Museum of Fine Arts, Boston, houses the most important collection of ancient Nubian art outside Sudan. Unfortunately, the colonialist perspectives of the excavators and curators led them to misinterpret the relationship between Nubia and Egypt in antiquity. In addition, the Nubian collection was woefully underrepresented in the museum's galleries, at first being presented as a subset of Egyptian art and later virtually removed from display. This paper will discuss the museum's history of exhibiting and interpreting Nubian art over the course of the last century, how that interpretation has changed in light of new scholarship, and plans for a long term reinstallation.

Challenging Colonial Endurances in Nubian Archaeology: The Case Against Craniometrics

Robert J. Vigar
University of Pennsylvania, Pennsylvania, PA, USA

This paper seeks to highlight and address colonial endurances which continue to be reproduced in Egyptological and Nubiological scholarship. In particular, this paper seeks to question the continued use of craniometric methods to establish population affinity in the Nile Valley, arguing that it is an example of enduring coloniality within archaeological theory. Craniometrics, the measurement and analysis of human crania, was heavily utilized by physical anthropologists and archaeologists in the 19th and early 20th Century as a method for the construction of racial hierarchies, especially in Egypt and Nubia. The works of George Reisner, David Randall-MacIver and Grafton Elliot Smith, utilizing craniometrics, laid the foundation for a form of essentialized anthropological analysis which blended cultural and biological traits. The more explicitly racist elements of these theories were critiqued and disregarded during the 1960s; however, it is argued that the foundation of cultural and biological congruity remains present in archaeological scholarship on ancient Nubia. This paper seeks to question the appropriateness of craniometrics on ancient Egyptian and Nubian subjects in contemporary scholarship. Further, this paper will address the theoretical slippages, epistemological constraints, and ontological essentialisms which reproduce ancient Nubia as a constructed site of difference in North East Africa. Finally, this paper will explore how the theoretical apparatus currently deployed in Nubian archaeology might be broadened, the potentiality for reimagining archaeology's relationship with extant Nubian populations, and how attending to Nubian archaeology's social and moral projects, forces us to contend with a new set of ethical questions.

Refocusing People through a Holistic Bioarchaeological Approach to Identity in Nile Valley Research

Michele R. Buzon
Purdue University, West Lafayette, IN, USA

Early morphological research on skeletal remains in the Nile Valley often used racist perspectives that equated biological characteristics with intellectual and cultural achievements. This presentation will highlight the modern skeletal research on the ancient inhabitants of the region using a holistic bioarchaeological approach that emphasizes biocultural variation situated within a contextual framework to reconstruct identity and residential mobility. The ways in which mortuary and ancient identity projects are conducted will also be discussed as a means to work towards decolonization, including diverse research teams and substantial involvement with local communities.

Notes from the Field: Confronting Biases

Aubree A. Gabbard, Brenda J. Baker
Arizona State University, USA

The 1960s and 1970s saw an influx in archaeological research in Sudanese Nubia. Although archaeology in the region had made great strides since its colonialist inception and overt racism of luminaries like George Reisner, field documentation from the latter half of the twentieth century is not without problems. Records from the ancient Nubian collections housed at Arizona State University include racist and sexist comments in the burial documentation. We highlight these biases and explore the ways in which they affected interpretations expressed in later publications.

Nubia and Kush: Ethnonyms, Migrationist Models, and Decolonizing Cultural Change and Continuity in the Middle Nile

Stuart T. Smith
University of California, Santa Barbara, Santa Barbara, CA, USA

Nubia and Kush have been somewhat interchangeable as topo- and ethnonyms in the literature referring to southern Egypt and northern Sudan. Nubia is typically used in a more general sense for the region of the Nile stretching from the first cataract of the Nile to the confluence at Khartoum. In contrast, Kush refers to two specific polities, the smaller Bronze Age Kingdom of Kush centered at Kerma and the Iron Age Kingdom of Kush with capitals at Napata and Meroe that covered a similar geographic span. Some scholars have questioned the applicability of the toponym Nubia prior to the rise of Christian Kingdoms in the Medieval Period. This argument rests on the interpretation of a textual record that emphasizes the movement of different peoples, including the Noba—an early ethnonym for Nubians, into the Nile Valley in the Late Antique Period. This paper presents a review of the appearance and use of each toponym/ethnonym and a post-colonial critique of the uncritical use of migration and essentializing ideas about identity to explain cultural change, a hallmark of colonialist narratives in the 19th and 20th centuries. A more careful consideration of these terms that contextualizes their histories through a theoretical perspective, and which emphasizes the situational and socially contingent nature of ethnicity and other axes of identity can provide a more nuanced and decolonized view of cultural change and continuity in the Middle Nile.

SESSION: 8A. Archaeology of Cyprus II

The Filling in of Parts Wanting: Cypriot Sculpture, Cesnola, and Misleading Restorations

Ann-Marie Knoblauch
Virginia Tech, Blacksburg, VA, USA

For twelve weeks from 1883 to 1884, New Yorkers were treated to a sensational civil trial in their city. The case was to determine whether Luigi Palma di Cesnola, director of the Metropolitan Museum of Art, had authorized intentionally misleading restorations of certain ancient Cypriot sculptures he had sold to the museum. While the long-awaited trial received daily updates in the local newspapers, New Yorkers soon seemed to grow bored with the endless archaeological details of the case. The trial was lasting much longer than anyone expected. Two witnesses, however, attracted a lot of attention: Theodore Gehlen, hired by Cesnola to be a restorer in 1873, and H.D. Hutchings, the assistant superintendent of the museum at the time. Their testimony described in detail the methods—said to be approved by Cesnola—for "making new limbs and members and filling in of parts wanting so that the whole may appear perfect."

As far back as August 1880, when the accusations against Cesnola were first levied, New Yorkers had latched on to this claim of false repairs, and Cesnola's Cypriot statues became (an often humorous) metaphor for anything sloppily or inappropriately crammed together. This paper explores and unpacks how New Yorkers adopted and adapted the well-publicized sloppy restoration charges against Cesnola and the ancient Cypriot sculpture as well as the impact that the court case had on contemporary popular culture in 1880s New York.

The Development of the Agora in Nea Paphos and the Institutions of Power in Hellenistic and Roman Cyprus

Łukasz Miszk[1], Ewdoksia Papuci-Władyka[1,2]
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The study of the architectural development of agorae in Hellenistic-Roman cities provides an opportunity to reconstruct the relations prevailing between the central authority and the self-governing poleis. This topic is relatively well developed in the case of ancient Greece.

However, in the context of the cities of ancient Cyprus, our knowledge of the relationship between the rulers of the island and local cities is very selective. This has been influenced, among other factors, by the limited research on the architectural remains of buildings associated with both the central authority and the municipal government.

Research of the Jagiellonian University Paphos Agora Project, carried out since 2011, has provided new information on the functioning of the main public square of the ancient capital of Cyprus, while also giving insight into relations between the authorities described above. A new reconstruction of the Nea Paphos Agora, both in architectural-urban and chronological terms, has been proposed. It has been proven that it functioned between the 2nd century B.C.E. and the 2nd century C.E., constituted a complex of about 2.5 ha, and was one of the largest agoras in the Hellenistic-Roman world.

In this paper, the results of our research on the Nea Paphos Agora—in the context of the relationship between the central authority of the Ptolemies, Roman Empire, and self-government of Nea Paphos—will be presented.

The Role of Nea Paphos and Kourion in the Hellenistic and Early Roman Periods through Analysis of Fine and Semi-Fine Ware Pottery

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The aim of this paper is to present the assumptions and preliminary results of a new project conducted in Cyprus, called "IMPORTant". The project is focused on a comparative study of the Hellenistic and Early Roman fine and semi-fine ware pottery distributed to Nea Paphos and Kourion, two significant city centers in those periods. Pervious studies suggest a large variety of imported pottery material used in the area of Nea Paphos. Still, we do not fully understand the patterns of supply—especially in the case of two technological groups under study, fine and semi-fine wares (mainly table wares and oil lamps). For Kourion, the picture is even more unclear because the Hellenistic and Early Roman pottery has not been well investigated. For proper interpretation of the pottery finds, special attention will be given to the interdisciplinary methodology—including the detailed macroscopic study of the presumed imports in combination with the chemical and petrography analysis of selected samples. As a result of this study, the distribution patterns will be reconstructed in order to understand the socio-economic situation and connections between Cyprus and the other parts of the Mediterranean, as well as between Nea Paphos and Kourion, which are located in two different pottery regions according to the regional approach in Cypriot pottery studies.

The Cliffs of Kourion: Light and Power in Ancient Cyprus

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The 2012 Season of the Kourion Urban Space Project began excavating Cyprus's Kourion acropolis and included an unforeseen excavation of two mosaic floors on the cliff edge. Two excavation staff members standing on the beach spotted a gap in the cliff. This gap was a cistern with a mosaic floor behind it. This observation led to the opening of Area D, where these mosaics were located. Previous papers have discussed these mosaics, but I would like to offer a different understanding of these floors and their placement on the coastline. Archaeologically, we do not understand the exact nature of the relationship between the Beach Basilica, Quay, and the buildings on the cliff. I propose that the placement and decorations of the white mosaics and a wooden divider on the cliff's edge building were designed to reflect light and provide a waypoint for ships entering the quay. The combination of the white cliffs and a clear night would enable ships to see the beach and dangers. The cost and maintenance of light to illuminate the night would have displayed the power and prestige of the residents of Kourion.

The Archaeology of Late Antique Basilicas and Economic Production in Cyprus

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In late antiquity, Cyprus was a prosperous, independent island that was able to build its importance through diverse trade relations. Its socio-economic and cultural development was shaped by invasions and earthquakes, but also by trans-Mediterranean contact and the lively cult of saints from the earliest years of Christianity. As Christianity developed in the eastern Mediterranean, the Church established a great influence over the island, as evidenced by numerous large basilicas and the formation of many bishoprics.

Within Cypriot localities, both rural and urban, a strong connection between religious and secular buildings can be traced, indicating a strong influence of the Church on the local economy. From an archaeological point of view, this phenomenon takes numerous forms and transformations. Both civic and religious monuments have been given archaeological attention in the past, however, the relationships between production sites and economic structures located close to churches have been neglected.

This paper studies ecclesiastical monuments in relation to agricultural and industrial facilities from the 4th to 9th centuries (the focus of the author's doctoral dissertation). Particular focus is given to the dynamics between economic spaces and sacred architecture, and is organized by the type of product or industrial activity. By bringing together the fields of architecture, ceramics, numismatics, and landscape archaeology, combined with a consideration of the island's late antique history and vitality, the role of the church and its influence before and after the 7th century Arab invasions is comprehensively presented.

SESSION: 8B. Cultural Heritage: Preservation, Presentation, and Management II

Artifact vs. Conflict: A Human Narrative in Umm al-Jimal

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At first, it was easy to mistake the sounds of bombs dropping a few kilometers away with the usual celebratory late night/early morning gunshots at a nearby wedding celebration during the July 2018 field season at Umm al-Jimal. They began at about 3:30 in the morning. After more than three or four explosions, it became clear that the source was Daraa across the border in Syria. This was confirmed by a short drive before sunrise to see the glowing orange flames against the dark sky. That was one year before the opening of the Umm al-Jimal Interpretive and Hospitality Center, the concept for which began in 2014 as refugees streamed across the border into Jordan from Syria. The Umm al-Jimal Archaeological Project initiated the project based on the premise that cultural heritage transcends boundaries and, therefore, can be engaged to promote peace. Preservation of ancient Umm al-Jimal, an outstanding example from the Hauran region (which extends beyond the border), began in direct juxtaposition to site destruction as an act of war in Syria. The goal is to combine site preservation, economic development, and education to mitigate challenges caused by proximity to conflict. Spanning more than 2,000 years, Umm al-Jimal offers a common human narrative—which exists in higher time, grounded in the archaeological record. It is a physical and cultural meeting place. Practically, Umm al-Jimal is a case study for investment in cultural heritage as a prophylactic to conflict (e.g. in UN SDG's or the like).

Post-Conflict Heritage Work in Ninawa Governorate, Iraq: Projects, Challenges, and Recommendations

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Since 2018, the Iraq Heritage Stabilization Program (IHSP) has worked with Iraqi partners to protect and preserve built cultural heritage in post-conflict northern Iraq. After initially focusing on the heritage of ethnic and religious minority communities targeted by ISIS, IHSP's work has expanded to 14 projects on archaeological, religious, and vernacular heritage sites across the Ninawa Governorate, which range from condition assessments to complete restorations of damaged properties. Most of these projects originate directly from requests by the local community or managing authority for help with a specific heritage problem, and all are implemented in collaboration with Iraqi heritage professionals, religious authorities, and civil society groups.

In this paper, we provide an overview of IHSP's work in the context of ongoing heritage response efforts, discuss the current challenges and procedures faced by those working in the region, and provide recommendations for future work as well as ways to improve support for Iraqi heritage professionals and the Iraqi heritage sector more generally. In particular, we focus on ways to empower Iraqi heritage professionals through expanding and reinforcing interconnections between existing domestic heritage groups as well as strengthening the infrastructure of the cultural heritage sector.

The Temple of the Winged Lions Cultural Resource Management (TWLCRM) Initiative: Lessons in sustainable preservation, accessibility, and community engagement from Petra, Jordan

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From 2009, the American Center of Research (ACOR), in cooperation with the Department of Antiquities (DOA) and the Petra Development and Tourism Region Authority (PDTRA), implemented an innovative cultural heritage preservation, site accessibility, and community engagement project within Petra. The Temple of the Winged Lions Cultural Resource Management (TWLCRM) Initiative has aimed to stabilize, conserve, and restore one of Petra's most prominent, yet threatened, monuments—the Temple of the Winged Lions. Excavated between 1974-2005 by the American Expedition to Petra, the Nabataean temple's fragile sandstone architecture has suffered from deterioration over the years from natural and human elements.

The TWLCRM Initiative assembled foreign and local professionals and technicians to document, conserve, and bring new life to the site. With support provided by the US Ambassadors Fund for Cultural Preservation, the United States Agency for International Development (USAID) Sustainable Cultural Heritage Through Engagement of Local Communities Project (SCHEP), corporate and private donors, and ACOR's Cultural Heritage Fund, the project aimed to document the site architecture; evaluate and implement

conservation interventions; recycle spoil heaps and rubble piles, as well as document artifacts; and increase visitor access through paths, signage, and education programs.

TWLCRM's innovative social engagement strategy involved members of Petra's local communities in preservation efforts through employment, training, and education. This created hundreds of opportunities in documentation, conservation, excavation, and landscape rehabilitation. With physical interventions completed in 2018, attention shifted to evaluation and publication. This presentation reviews key sustainable preservation, accessibility, and community engagement goals, and reflects on lessons learned which can help benefit other projects.

Community Curators and Capacity Building at El-Kurru, Sudan

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As the field of archaeology continues to confront its colonial origins, it becomes an imperative that the research undertaken is of mutual benefit for both stakeholders and archaeologists. This includes deep engagement with community-held narratives on heritage as part of the interpretation process. The International Kurru Archaeology Project (IKAP) has undertaken community-engaged cultural heritage work at El-Kurru, Sudan since 2016. Through a series of different stakeholder conversations, IKAP now coordinates several community-based endeavors centered around a forthcoming heritage center. In this paper, I discuss the ongoing development of two projects—an exhibition on local culture and a set of resources for teachers—and the challenges of continuing this collaboration remotely.

The presentation on local heritage, one of two exhibitions planned for the heritage center, will feature community-sourced photography and artifacts that speak to different aspects of contemporary life in El-Kurru. Subsequent interviews and focus group meetings give residents control over how their culture is interpreted and presented to future visitors. When considering the archaeology of El-Kurru, earlier discussions with teachers revealed very different comfort levels with archaeological knowledge but a general desire for resources on Sudan's ancient history that would be accessible for both teachers and their students. Initial feedback and evaluation of draft materials has helped to clarify points of interest and query. This paper will detail the later development stages for these two projects and how the field of museum studies continues to influence our team's approach towards interpretation and presentation for multiple audiences.

Post-Pandemic Opportunities for Libyan Cultural Heritage Protection

Will Raynolds
ASOR Cultural Heritage Initiatives, USA

The global pandemic compounded many existing challenges in Libya, resulting in a prolonged period of reduced connectivity combined with sustained or increased pressure on archaeological sites and other heritage resources. This lecture presents an overview of ASOR CHI's recent work with Libyan partners to counter and prevent illicit trafficking, foster education and stewardship of cultural heritage, and document and monitor changing conditions. With an eye towards expanding the horizons of collaboration as the threat of the pandemic recedes and the process of political reconciliation unfolds, CHI's work points towards new avenues of partnership between civil society organizations and governmental heritage authorities.

The Dream of Babylon: From Sin City to the City of Wisdow

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Babylon, from the Middle Ages on, has had a somber image in most Western cultures—particularly due to the diverse apocalyptical announcements and the myth of the Babel Tower. However, Babylon has not always been viewed so negatively.

There is a medieval notion, forged around the 9th century, called *translatio studii*, which explained that the main center of knowledge or wisdom was the Garden of Eden; but after its closure, Babylon and then Jerusalem, Athens, and finally Rome became the next fundamental centers of knowledge.

So, Babylon, in this conception, was not opposed to the Eden nor to Jerusalem and was not considered an evil or destructive center, but Babylon was perceived as a necessary step that helped to fix, to preserve, and to pass the necessary human knowledge to a next city.

This notion is reminiscent of the Nabucodonosor Dream, which prophet Daniel was able to decipher. However, instead of an image of power decaying from empire to empire until the revelation of the Celestial Jerusalem, the *translatio studii* notion showed that knowledge was, in fact, increasing from The Garden of Eden to the first European monastery and cathedral schools—especially in the German or Carolinian Empire where Rome (like Babylon in earlier times) was a most revered center.

The "Incidental Archaeology" of Mary Eliza Rogers: An Early 19th-Century Perspective on Ancient Remains

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The British traveler, Mary Eliza Rogers, lived and traveled in Palestine in the 1850's—approximately a decade before the birth of biblical archaeology in England. She traveled as a companion to her brother—who was serving as the British Vice-Consul—and is best-known for the volume she published, *Domestic Life in Palestine,* which modern scholars study as an example of an ethnography written by a 19th-century female traveler. However, *Domestic Life* should also be used as a source for the history of archaeology: Rogers's frequent mentions of antiquities and ancient remains permeate her text, even though writing about archaeology was only incidental to her ethnographic goal. Rogers traveled prior to the advent of organized excavation and survey by Europeans, and yet, she demonstrated particular interest in the smaller-scale ruins not recorded by most travelers, often describing them in detail and sometimes sketching what she saw. Most notably she described how the local residents of Palestine interacted with the antiquities on their land on a daily basis.

The Waters of Samaria: Correcting an Archaeological Myth

Norma Franklin
University of Haifa, Israel

The city of Samaria was founded in the 9th century B.C.E., and despite many vicissitudes, the city was continuously inhabited for nearly a thousand years. In 30 B.C.E., it was renamed Sebastia by Herod, and it continued to flourish as a Roman colony under Septimius Severus in ca. 210 C.E. Yet, despite its glorious history, John Crowfoot—the director of the Joint Expedition to Samaria-Sebaste

(1931–1935)—declared that "Samaria… though it had a long history, never grew into a very big city.… A serious drawback was the want of a good water supply; the nearest good springs are a mile away on the far side of a deep valley and they would have been cut off whenever the city was closely beleaguered; the cisterns inside the walls could not have been sufficient for many thousand inhabitants plus their horses and donkeys" (Crowfoot et al. 1942: 1). The entry in the *New Encyclopaedia for Archaeological Excavations in the Holy Land* reads "Samaria… was chosen as the capital of the Kingdom of Israel, even though it lacked an adequate supply of water," and that "the water supply of the Israelite city… was limited to rainwater which was collected in cisterns" (Avigad 1993:1300, 1308). A study of the unpublished excavation diaries from the Harvard excavations (1908-1910), pilgrims' accounts, and old photographs and maps have shown that Samaria-Sebaste has always had its own water source. The archaeological myth founded by Crowfoot must now be corrected.
Crowfoot et al. 1942: 1
Avigad 1993:1300, 1308

The "Strong-Built" (Prefabricated) Walls of Troy: The Living Quarters of the Cincinnati Troy Expedition
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Carl W. Blegen, field director of the University of Cincinnati Expedition to the Troad from 1932-1938, and his crew faced a common issue among excavations, both old and new—housing for the team. With no accommodations available near the site, a plan to build a permanent structure—the course that other contemporary large-scale excavations took—proved virtually impossible for a number of reasons. The team then struck upon a unique solution—a portable, prefabricated house. Designed by the architect W. Stuart Thompson, the house was built by the E. F. Hodgson Company in the United States and then shipped to the Turkish port at Çanakkale. Camels and ox-drawn wagons transported the house components to the site where it was assembled.

In this paper, I present the evolution of this crucial feature of the excavation—utilizing a wide array of archival material, which includes not only correspondence but architectural plans and the final blueprints, all of which survive. Moreover, numerous photographs of the house and the surrounding buildings—during their construction and demolition—exist, and we can witness the actual assembly of the house via a brief film clip recorded by William T. Semple.

Invisible Excavators: The Quftis of Megiddo, 1925-39
Eric H. Cline
The George Washington University, USA
From their very first day in mid-September 1925 to their last day in May 1939, the staff members from the Oriental Institute at the University of Chicago who oversaw the excavations at Megiddo relied upon skilled Egyptian workmen (*Quftis*) as well as local laborers. However, while the excavation depended heavily on these men, little direct information about them is available; only a few are mentioned in the preliminary and final publications produced by the project. We are at the mercy of what can be found in various archival sources now, particularly at the Oriental Institute and within the British Mandate papers of the Israel Antiquities Authority, as well as personal items now belonging to the descendants of the original Chicago team members. Data must be gleaned from, for example, requests for half-price railway vouchers for travel between Kantara and Haifa for specific Egyptian workmen once or twice each season; black and white photographs; and occasional mentions in budgets or in passing within letters sent back and forth between Megiddo and Chicago. Still, from this fragmentary information, we can piece together at least a partial picture of these unsung members of the expedition, some of whom were present at Megiddo for more seasons than the ever-rotating members of the Chicago staff themselves.

SESSION: 8D. The Great Experiment at Tell el-Hesi: Reflections from the Past and Visions for the Future

Dating the Joint Archaeological Expedition's Stratum IX: Bliss's City V at Tell el-Hesi
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When the Joint Archaeological Expedition to Tell el-Hesi decided to go back to Hesi in 1970, one of their goals was to investigate the same stratigraphic layers excavated by Frederick Jones Bliss in 1891 and 1892, and to compare their results with his. Totally unexpected was the lack of any identifiable stratigraphic remains they could tie to Bliss's City V, Bliss's phase that includes three tripartite pillared buildings, a.k.a. stables. This paper investigates this phase, reconstructing its stratigraphy and dating it, before placing it in a broad historical context of the late 11th and 10th centuries B.C.E.

The Joint Archaeological Expedition to Tell el-Hesi at 50+1: The Site, the Expedition, and the Survey
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This presentation actually includes three histories. 1) The history of the site itself that has been revealed by the expeditions to and excavations of the site. They have shown that occupation spanned from the Neolithic to the Islamic periods. 2) The expedition, which is celebrating its 50th anniversary (one year late), began in 1970 and lasted until 1983. However, one cannot ignore the fact that the site was previously excavated by Sir Flinders Petrie and Frederick J. Bliss in the 1890s. Both left their marks on the site that the Joint Archaeological Expedition began to excavate in 1970. This excavation focused on the Early Bronze, Iron, Persian, and Islamic periods. 3) Following the end of excavation of Tell el-Hesi itself (1970-83), portions of the staff undertook a systematic survey of the region for the Israeli Antiquities Authority, which better places Hesi in its broader geographical and historical context.

Reassessing the *Chaiˆne Opératoire* of the Early Bronze Age III Levantine Bone Tube Tradition: The View from Tell el-Hesi
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Incised bone tubes are an important class of artifacts chronologically associated with the Third millennium B.C.E. throughout the Near East and Eastern Mediterranean. Typically made of ovicaprine or cattle metapodials or long bones and decorated with a series of incised motifs, these artifacts derive from Early Bronze Age elite burial and settlement contexts in small numbers. New work at Tell

el-Hesi, Israel, has shown that a specialized bone tube workshop was present at the site, operating only during the Southern Levantine Early Bronze Age IIIA (28th century B.C.E). This presentation provides a reassessment of the Levantine tradition of bone tube manufacture and design based on the existence of the Tell el-Hesi workshop. By providing a detailed description of the workshop's stratigraphic context, further investigating its *chai ˆne opératoire* through experimental replication, and defining the range of morphometric variation in design attributes that characterize its workshop style/tradition, the authors establish a baseline to compare bone tubes produced elsewhere to a known production center. Results suggest a subset of bone tubes from sites around the Levant shared morphometric proportions, motif sequences, styles, and materials with Tell el-Hesi. The authors interpret these artifacts as products of the Hesi workshop, providing a chronological anchor for their contexts.

Neutron Activation Analysis of the Early Bronze III Potter's Marks from Tell el-Hesi

Rachel Banks
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The "Great Experiment" of processual archaeology at Tell el-Hesi generated new ways of thinking about how to situate Tell el-Hesi within the wider contexts of the Northern Negev political system as well as the far-reaching trade contexts with Egypt and the Levant. Because of the sheer amount of excavated material culture from Tell el-Hesi, not all of it has been studied and there is always more to learn and compare. In the case of the Early Bronze III potter's marks recovered from Tell el-Hesi, I conducted x-ray fluorescence testing last year to see if the relative abundance of elements in the clay suggested that the pottery had a common point of origin. The results of the x-ray fluorescence tests showed similar elemental ratios with high levels of calcium, indicating that potters used local clay from the Hesi region. This paper proposes to continue the testing with neutron activation analysis in order to address questions such as the degree of locality of the clay. Comparing the specific origins of the clay used in the vessels bearing potter's marks with the regional distribution of the potter's marks may offer further explanations of Tell el-Hesi's economic role in Levantine trade.

The Future Dead: Bridging Method and Theory of Past Bioarchaeological Research at Tell al-Hesi for Future Research of the Late Arabic Period Muslim Cemetery at Tell el-Hesi

Sara M.E Cody
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In the summer of 1970, the Joint Archaeological Expedition to Tell el-Hesi (1970-1983) set out to begin "The Great Experiment" at the momentous site of Tell el-Hesi. While the focus of the Joint Expedition was on the more ancient occupations of the site, excavators found they would have to contend with an unforeseen obstacle: an enormous Late Arabic Period Muslim Cemetery. Throughout eight field seasons at Tell el-Hesi, over 900 Late Arabic period burials were excavated and recorded. The Joint Expedition's commitment to the holistic approach of Processual Archaeology allowed for the collection of skeletal data at Tell el-Hesi. While the Joint Expedition's collection of skeletal data at Tell el-Hesi has the potential for future bioarchaeological research, it is limited in scope as the remains were reinterred each field season and bioarchaeological methods have since advanced by leaps and bounds. Bioarchaeological theory has also grown and developed tremendously and has greatly benefitted from larger theoretical frameworks such as post-processualism and feminist archaeology. This begs the question of precisely how useful the skeletal data collected by the Joint Expedition are to furthering our understanding of Tell el-Hesi and what these data have to offer future excavations of this extraordinary site. This paper examines the theoretical underpinnings of the Joint Expedition's excavations of the cemetery and explores contemporary bioarchaeological method and theory in an effort to bridge past and future excavations of the Late Arabic Period Muslim cemetery at Tell el-Hesi and propose a theoretical framework for future research.

"Absolute"ly Dating Early Bronze Age at Tell el-Hesi: New C14 Results in Context

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It is well documented that Tell el-Hesi had a substantial Early Bronze Age occupation. This is largely known through relative dating techniques of material culture. This past year, archived paleobotanical samples, collected during the 1979 Joint Archaeological Expedition to Tell el-Hesi field season from structures inside the city wall, were processed for C14 testing. The samples were recovered via flotation and excavation, and have been in storage for over 40 years. Those samples selected for testing represent stratigraphic floors within the structures in Field VI.

This paper will address the potential problems with testing archived materials as well as compare the new results to that of C14 dates from samples processed 20 years ago. Not only will the new results be presented, but the absolute chronology will be paired with a reevaluation of the material record in order to better contextualize what we know about the occupation of Early Bronze IIIa at Tell el-Hesi.

SESSION: 8E. Archaeology and History of Feasting and Foodways

Memory as Re-pasts, Re-presented and Re-enacted: Searching for Proust in the Ancient Near East

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The study of food in the ancient Near East has expanded considerably to include such issues as feasting, social structure, administration, and trade, among other issues. Perhaps still less explored is the powerful place of food in relation to memory and what implications this may have with respect to performance. I begin in a familiar place, with the well-known vignette of Marcel Proust and his narrator's encounter with the madeleine, and then move to the work of David Sutton and Yannis Hamilakis, which dovetails with a growing interest in the senses in the ancient Near East (e.g., Thomason 2016). From this basis, I argue for encounters with food as a site of experience and a conceptual parallel to place. This recontextualization—articulated from a philosophical and psychological perspective—positions us for a brief review of the central role of food in performance and as anchoring social and political bonds. A brief look at several case studies from the ancient Near East serves to round out this study.

Ancient Egyptian Influences and Poly-Interpretable Characters within Hellenistic and Roman Deities of Ancient Judea and Palestine

Vivian A. Laughlin
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The Hellenistic era created aesthetically Graecized objects that were fusions of Greek and Egyptian religion, coupling them with agency (power) (Arnaoutoglou 2018: 248). The Hellenistic religious and political applications were then emulated by the Romans, though in some instances, measures of erasure were implemented to promote Roman religion. The use of structuration, empirical, qualitative, and historical theory methods within this study showcase the Hellenized and Romanized aesthetics derived from Ancient Egyptian religion. The methodological framework aids in demonstrating if the objects were either isolated: identifying if the objects were "received and taken elsewhere"—introduced without indication of an existing similar religious form (Motte and Pierenne-Delforge 1994: 13); or, assimilated: identifying if outside elements were implemented within already existing traditions—cultures typically assimilate other elements into their own but do not cohesively mix everything, this instead, creates a "poly-interpretable" syncretic character that shares an interpretation (Drjivers 1980: 17). This study is a necessary under-researched area that will fill the lacunae because it illuminates the rulers and their representatives (who held power) applied usage of agency to cultic objects, and how this generated poly-interpretability within ancient deities.

Arnaoutoglou, I.
2018   Isiastai Sarapiastai: Isiac Cult Associations in the Eastern Mediterranean. Pp. 248—280 in *Individuals and Materials in the Greco-Roman Cults of Isis: Agents, Images, and Practices,* eds. Valentino Gasparini and Richard Veymiers. Leiden: Brill.
Drijvers, H.J.W.
1980   *Cults and Beliefs at Edessa.* Leiden: Brill.
Motte, A. and Pirenne-Delforge, V.
1994   Du "bon usage" de la notion de syncrétisme. *Kernos* 7: 11–27

SESSION: 8F. Archaeology of Syria

Patterns of Wood Exploitation in the Ubaid and Late Chalcolithic 1 Periods: Results from Tell Zeidan, Syria

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Wood harvested as timber or burned as fuel was an important resource in the lives of people in the past. In the semi-arid regions of Southwest Asia, the abundance of wood resources would have frequently been limited by low annual precipitation rates, even prior to widespread anthropogenic deforestation. Examining what wood resources were available and how they were utilized is important to understanding the risk management strategies employed by people living in marginal environments. In this paper, we present the final results from a dendro-anthracological analysis of wood charcoal recovered from the site of Tell Zeidan, located at the confluence of the Balikh and Euphrates in modern Syria. Through a comparison of wood charcoal from domestic and industrial areas of the site, we distinguish differences in fuel preferences for craft production and domestic activities. These data are then considered against previously reported evidence for non-woody fuel resources at Zeidan. The inhabitants of Tell Zeidan utilized locally available riparian vegetation for the majority of their wood fuel needs. However, fuel use does not only derive from what is available in the environment; it also reflects human agency and intentionality. Differences in fuel selection are consistent with functional contrasts in the temperature, intensity, and duration of the heating requirements for cooking versus ceramic production. We argue that the Ubaid/LC I inhabitants of Tell Zeidan employed a variety of fuel sources as a risk reduction strategy in the "zone of uncertainty," while maintaining specific fuel preferences for individual tasks within these constraints.

Newly Discovered Sculptures at Ain Dara

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During the recent Syrian conflict, the site of Ain Dara fell under the control of militias affiliated with the Kurdish YPG (People's Protection Units)forces and was designated as a military training camp. At this time, the site was hit by airstrike which greatly damaged the Iron Age temple on the high mound. In 2019 the site came under the effective control of a militia affiliated with the so-called Syrian National Army backed by the Turkish Military. Since then, the site has suffered extensive bulldozing and looting. That led to exposing newly orthostatic sculptures of magnificent value and level of preservation. In the fall of 2020, a team of local archaeologists who are part of the SIMAT (Syrians for Heritage) association conducted emergency preservation intervention to document and digitize these sculptures and subsequently re-bury them at the site. In this presentation we will try to shed light on these newly discovered sculptures which will help to understand the nature of settlement at the site and contribute significantly to the study of Syro-Hittite art.

Archaeological Perspectives on Urban Scaling: The View from Hamoukar, Syria

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Over the past decade, a robust discussion has arisen in the field of urban studies about the research implications of urban scaling theory. Urban scaling theory (sometimes called settlement scaling theory) posits that population size is related in mathematically predictable ways to outputs like per capita productivity and infrastructural development. Recently, urban scaling theory has begun to percolate into archaeological discussions, but it has not yet been subjected to significant critical evaluation by archaeologists. In this paper, I draw on a well-documented case of early urban development—northern Mesopotamia during the Early Bronze Age—to highlight some potential issues with urban scaling theory when applied to ancient settlements. My case study is the site of Hamoukar, which grew to be one of the largest urban centers in northern Mesopotamia during the Early Bronze Age. I outline the urbanization process at Hamoukar and other contemporary sites in order to demonstrate that historically contingent and locally specific developmental trajectories complicate the applicability of urban scaling theory.

Baghouz (1934 – 1936): New Data on the Parthian Necropolis from the Archives of R. du Mesnil du Buisson at the Louvre Museum

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Musée du Louvre, Paris, Paris, France

The Baghouz necropolis is located on a plateau on the left bank of the Euphrates at the border between Syria and Iraq.

It was excavated by R. du Mesnil du Buisson during three campaigns (1934-1936) as part of his work with the joint Franco-American mission of Doura Europos.

The unpublished results of the Parthian necropolis kept in the archives of R. du Mesnil du Buisson at the Louvre Museum (DAO) will be presented in a first analysis.

These archives include plans, drawings and photographs accompanied by a description and location maps.

The study of the funerary material will bring new documentation which complements that found at Doura Europos.

SESSION: 9A. The Secret Lives of Objects: Conservation Science, Technology, and Digital Humanities

Abydos Archives: Forgotten Cultural Heritage; Rescue Strategy

Ahmed Tarek[1], Lissette Jiménez[2], Jessica Kaiser[3]
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The Abydos Temple Paper Archives Project (ATPA) preserves, documents, records, and conserves historical archives containing documents from the Egyptian Antiquities' Service related to the heritage management of the site of Abydos and surrounding areas from approximately 1850 through the 1960's. Abydos Temple Paper Archives Project serves as an important repository of information that can elucidate the contributions of the many Egyptian archaeologists who took part in the early exploration of Egypt and the formation of Egyptology as a discipline.

Many of the documents (e.g., reports, letters, maps, and ledgers) are in poor condition resulting from unfavorable storage conditions and damage from time and natural elements. If not properly treated, the documents and their information could be lost. In addition to preservation factors, there are a number of obstacles, notably the lack of sufficient funds to obtain necessary conservation materials, since most materials are unavailable in Egypt and need to be imported from abroad. Therefore, a rescue strategy using SWOT analysis, "Strengths, Weaknesses, Opportunities and Threats" has been established to assist in conservation; a process that necessitates a continuous development strategy for the project that consists of obtaining information on the current state of the documents and identifying the basic obstacles and the negative elements affecting preservation. This mode of analysis is significant for exploring the Abydos Archives and setting realistic and achievable goals for conservation. This paper will discuss the implementation of SWOT analysis in the conservation of the Abydos Temple Paper Archives Project and outline future opportunities for developing a sustainable preservation, documentation, and conservation model.

Secrets Revealed: Using 3D Models to Discern Origins and Treatment of Sarcophagi and the Virtual Rejoining of a Sarcophagus and its Burial in 26th Dynasty Saqqara

Jessica Johnson, Kea M. Johnston
University of California, Berkeley, Berkeley, California, USA

The Book of the Dead in 3D project was conceived in order to study the way that texts and vignettes on Ancient Egyptian coffins function with each other and with the surfaces on which they are written. The project website features 3D models of Egyptian coffins, along with research on their backgrounds, and interactive translations of their texts. 3D models provide ease of access and the ability to quickly consult iconography and text. This ability provides valuable insight into the origins of the pieces and their treatment over time. Expansion of the corpus includes pieces in more regional museums in the U.S. and the inclusion of Arabic-speaking audiences.

One such model, a Late Period inner sarcophagus of "chief physician" and "overseer of the Temehu," Psamtek, found in 1900 south of the Unas pyramid at Saqqara, serves as the basis for building a digitally accessible elaboration on its archaeological context -- a deep rock-cut shaft tomb. A joint team from UC Berkeley and Santa Cruz is developing a VR-headset experience that combines a 3D reconstruction of Saqqara with a photogrammetric model of the sarcophagus. Virtually re-placing the sarcophagus in its original context highlights historical accuracy and virtual preservation.

Both projects mentioned aim to continue to shed light on the "secret lives" of Egyptian coffins, their texts, and contexts.

Connection Collections through Inscribed Metal Tablets, Part I: The Harvard Museum of the Ancient Near East and Yale Babylonian Collection

Elizabeth A. Knott[1], Agnete W. Lassen[1], Klaus Wagensonner[1], Adam Aja[2]
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As objects move from the ground to collections across the world, archaeological information is easily lost, making it all the more challenging to reconstruct an object's biography and, in particular, its original context of use. As part of a larger cross-institution project studying inscribed metal tablets, the Harvard Museum of the Ancient Near East, Oriental Institute of the University of Chicago, Yale Babylonian Collection, and Vorderasiatisches Museum, Berlin are working together to uncover the shared history of objects in their collections. Modern scholarship has connected inscribed gold and silver tablets in the collections of the Yale Babylonian Collection and Oriental Institute with foundation boxes in the collections of the Harvard Museum of the Ancient Near East and Vorderasiatisches Museum, respectively. In a pair of talks, members of the four institutions explore possible connections drawing on both scientific study of the tablets and archival research.

At the Yale Babylonian Collection, a gold and silver tablet have long been understood in relationship to a stone foundation box in the collection of the Harvard Museum of the Ancient Near East. The objects are thought to come from Tell Abu Marya (ancient Apqu), west of Mosul. They all carry inscriptions of Ashurnasirpal II. Inscribed texts on the objects differ, however, and the pieces were purchased from separate dealers. In addition to providing an overview of the scientific testing and conservation of these objects, this presentation explores the possibility that the two tablets in the Yale Babylonian Collection were buried in the foundation box now at Harvard Museum of the Ancient Near East.

Connecting Collections through Inscribed Metal Tablets, Part II: The Oriental Institute and the Vorderasiatisches Museum, Berlin

Kiersten Neumann[1], Laura D'Alessandro[1], Jean M. Evans[1], Helen Gries[2], Gert Jendritzk[2], Susanne Paulus[1], Alison Whyte[1]
[1]Oriental Institute, University of Chicago, Chicago, IL, USA. [2]Vorderasiatisches Museum, Berlin, Germany

As objects move from the ground to collections across the world, archaeological information is easily lost, making it all the more challenging to reconstruct an object's biography and, in particular, its original context of use. As part of a larger cross-institution project studying inscribed metal tablets, the Harvard Museum of the Ancient Near East, Oriental Institute of the University of Chicago, Yale Babylonian Collection, and Vorderasiatisches Museum, Berlin are working together to uncover the shared history of objects in their collections. Modern scholarship has connected inscribed gold and silver tablets in the collections of the Yale Babylonian Collection and

Oriental Institute with foundation boxes in the collections of the Harvard Museum of the Ancient Near East and Vorderasiatisches Museum, respectively. In a pair of talks, members of the four institutions explore possible connections drawing on both scientific study of the tablets and archival research.

The connection between a gold tablet at the Oriental Institute with a foundation box at the Vorderasiatisches Museum has been discussed since the Oriental Institute's acquisition of the tablet in the 1920s, including correspondence between James Henry Breasted and Walter Andrae. The box was uncovered during Andrae's excavations at Ashur and the OI's tablet was acquired from an antiquities dealer in Paris. Yet both are inscribed with text commemorating Shalmaneser III's restoration of a wall at Ashur, suggesting that the box may have once housed this very tablet. The paper will explore this possibility and present the latest findings from this project.

SESSION: 9B. Gender in the Ancient Near East

Gendering Names in Sealand I Onomastics
Michael A. Chapin
Johns Hopkins University, Baltimore, Maryland, USA
In Assyriological literature on naming, the grammatical gender of a name is often used to identify the gender of the individual; e.g., *Mūrānum* (Puppy)—a masculine noun—would be borne by a man and *Mūrāntum* (Puppy)—a feminine noun—would be borne by a woman. This practice of equating of a name's grammatical gender with an individual's gender is particularly used to identify female names which lack an explicit feminine determinative.

For this paper, I apply a socio-linguistic approach to the onomastics of a southern Mesopotamian Sealand I palatial archive (ca. 1550-1450 B.C.E.) and I argue that the gendered naming practices in this archive are more complex and cannot be reduced simply to grammatical gender. While the majority of names explicitly marked with a feminine determinative are indeed grammatically female, there are clear examples in the Sealand I period of grammatically male names marked with feminine determinatives and grammatically female names borne by individuals that can be identified as male. Additionally, compared with names of unmarked gender, women's names with feminine determinatives are substantially less likely to contain a theophoric element, are more likely to contain an element referring to a relative, and are more likely to consist of a single word rather than a short phrase.

Identifying gendered naming practices beyond that of grammatical gender may offer us an avenue into identifying other women, perhaps not marked by a female determinative, who have until now remained invisible in our corpus and beyond.

Assumptions About the *Assinnu*
Kelsie Ehalt
Brandeis University, Waltham, MA, USA
Members of the ancient Mesopotamian cult of Ištar have been subjected to various interpretations by scholars despite only a small number of textual references to them. This paper will discuss attestations of *assinnu* in ancient textual sources, which have been deployed for various interpretations and translations. It will then provide a systemic discussion of the issues of sex assignment at birth, castration, sexuality, prostitution, and transvestism—all while adding modern gender scholarship into the discussion. The incorporation of modern gender theories—from Judith Butler's framing of gender as performative and socially reified to Jack Halberstam's investigation of gender performance at the margins of normative binary categories—will aid with the deconstruction of long-held interpretive traditions within Ancient Near Eastern scholarship and provide a new analysis of the gender performance of the *assinnu*. I reject the interpretation of *assinnu* as being males who perform a feminine gender and instead will show that there is no specific evidence that the *assinnu* must have been assigned male at birth. I similarly reject assumptions of castration, homosexuality, prostitution, and transvestism and instead posit that *assinnu* performed a gender that eludes easy categorization into a masculine/feminine binary and that, perhaps, a more specific discussion is impossible given the limited textual attestations.

The Yauna Revisited: Re-Conceptualizing Gender and its Terminologies at Persepolis
Neville McFerrin
University of North Texas, Denton, Texas, USA
In reliefs across the site of Persepolis, men and displays of idealized masculinity are iteratively present. From royal heroes grappling with lions to the delegates depicted upon the Apadana, nearly all depicted figures within the site are men—with the lioness, who appears amidst the Elamite delegation, serving as the site's sole depicted female. Such a visual program may seem to generate and support both the gendered hierarchies and gender binaries. Yet, throughout these reliefs, similar apparent binaries, ranging from distinctions between king and subject to differentiations between architecture and bodies, are consistently deconstructed—often through the lens of dress.

To explore the ways in which depictions of dress at Persepolis help to highlight entanglements between gendered categories, conceptualizing gender as a mutually constituting system functioning in parallel to Achaemenid conceptualizations of empire, this paper focuses upon a single delegation upon the Apadana, that of the Ionian Greeks—the Yauna. Building upon the work of Margaret Cool Root, this paper explores the ways in which Greek notions of normative gendered dress are deliberately confronted in this depiction to highlight, not tensions between gendered categories, but slippages. Juxtaposing the depicted dress of the Yauna with the contemporary normative dress of Greek men, with dress depicted elsewhere upon the Apadana, and with extant Achaemenid adornments, the paper argues that, within this context, gendered distinctions are of less interest than sensorial substantiation—suggesting that the use of modern gendered terminologies in discussions of the site may obscure, rather than clarify, the site's visual program.

A Gender Perspective on Manners and Etiquette in Ancient Assyria
Ludovico Portuese
Università degli Studi di Messina, Messina, Italy. University of Pennsylvania, Philadelphia, USA
During the European Middle Ages and in Renaissance courts and cities, writers and intellectuals began to reflect on the manners and protocol practices, leaving an abundance of precepts on conduct and socially acceptable behavior both for men and women. The ancient Near East does not provide us with written treatises of this kind nor guides to living well, but an examination of textual sources (i.e., inscriptions, letters, rituals, and treatises), archaeological evidence (e.g., bathrooms and remains of bathtubs), and visual artefacts (i.e.,

reliefs, wall paintings, and seals) of the Neo-Assyrian period may support scholars in reconstructing a gender-related etiquette.

Archaeological contexts, visual representations, and inscriptional evidence tends to relate primarily to elite individuals and their families and provides a symbolic and idealizing gendering of male and female identity and practice. This paper builds on past sociological studies that do not adopt the rigid division between sex and gender but rather rely on what produces a gender system. Accordingly, gender is seen as produced by social situations and interactions among individuals. Thus, this paper will scrutinize each piece of evidence that helps to identify behaviors and manners through the interactions between men and women in first millennium Assyria. It is concluded that manners and etiquette were an essential strategy for highlighting social interactions between men and women, as well as eunuchs, in the formation of identity at the Assyrian court. In other words, manners and etiquette may contribute to gender persons in Assyrian society.

Turf Wars? Spatial Negotiations between Two Ideal Assyrian Masculinities, Priest and King
Ilona Zsolnay
University of Pennsylvania, Philadelphia, PA, USA

Using the concept of hegemonic masculinity as a framework, this paper will interrogate points at which two celebrated gender constructs, priest and king, come in contact during two state rituals—the coronation and a battle-ceremony. It will interrogate how, in performances orchestrated by the cult, the creators of these rituals negotiate the presence of a seemingly rival and equally illustrious construct of masculinity within their precinct.

WORKSHOP: 9C. Navigating the "in Between": Identifying a Career Trajectory in Academia for the Early Career Scholar

Be Ready for Anything
Kathryn Grossman
North Carolina State University, Raleigh, NC, USA

I studied Egyptian archaeology for my B.A. and M.A., switched to Mesopotamian archaeology for my PhD, and now also work in Cyprus. I have taught in several different kinds of department: Humanities, History, Materials Science and Engineering, and now Sociology and Anthropology. Being flexible and open to new possibilities has opened a lot of doors for me, but as you'll hear over and over again in this panel, luck has also played a big role. I will discuss how to make yourself marketable for a wide range of jobs and how to look for jobs across a broad array of disciplines.

Preparing for the Academic Job Market: Something Old, Something New
Julia Troche
Missouri State University, Sprngfield, MO, USA

My name is Julia Troche, and I received my PhD in Egyptology & Assyriology in 2015 from Brown University after receiving my B.A. in History from UCLA. I am now Assistant Professor of History at Missouri State University. As part of the panel for the Early Career Scholar's academic career workshop on which I have been invited to present, I hope to speak on some of my experiences that I believe have helped me reach my current position, to discuss what I see changing in the most recent job market (as I have chaired a search committee and sat on a second one in the past few years), and to answer questions for those in attendance.

Preparing for the Future in Ancient Middle East Studies
Jay Crisostomo
University of Michigan, USA

Tenure track jobs have become a rarity in ancient Middle East-related fields. More often than not, those who get these positions are the beneficiaries of exceedingly good luck. But if such an opportunity comes along, how can Early Career Researchers put themselves into good positions to be considered? And what can ECRs do while preparing for careers in these fields to promote equity, public engagement, and other important issues that future employers might consider?

Pivoting from an R1 Grad School to Teaching at a SLAC
Jessica Tomkins
Wofford College, Spartanburg, SC, USA

I completed my PhD in Egyptology at Brown University in December 2018. I was then the inaugural W. Benson Harer Egyptology Scholar in Residence at California State University, San Bernardino, before successfully pivoting to an academic career at small liberal arts colleges. My first position was *Visiting Assistant Professor of History* at Oglethorpe University (Atlanta) before landing a tenure track position as *Assistant Professor of History* at Wofford College.

I think there are many positions at liberal arts colleges that graduate students aren't aware of or don't think they are eligible for, and there need to be more conversations about these types of jobs. For this session, I will talk about what working at a small liberal arts college entails, how to successfully pitch yourself and your research to a Liberal Arts College audience, and how to read a job advert to understand when an institution knows what they're looking for and (more importantly) when they don't and are open to new things, like ANE studies.

The Appeal of the Ancient World in Small Liberal Arts Colleges
Shane M. Thompson
North Carolina Wesleyan College, Rocky Mount, NC, USA

I will speak about my experience on the job market and my preparation to make myself a strong candidate. I received a tenure-track job this year at a SLAC (small liberal arts college) as an ABD (All but Dissertation). However, I entered the job market with different preparations and credentials than most coming out of PhD programs—I taught at 4 different institutions during the last two years of my program, took multiple teaching opportunities during my program, and taught a wide variety of courses in addition to partaking in multiple opportunities for pedagogical training.

SESSION: 9D. Islamic Seas and Shores: Connecting the Medieval Maritime World

Towards Fustat: Rethinking the Red Sea Trade Networks in the 9th-15th Centuries A.D.
Yiliang Li
Department of Maritime Civilizations, University of Haifa, Haifa, Israel

As a constituent part of the Indian Ocean maritime commercial system in the Medieval period, the Red Sea trade networks have received much attention. On the one hand, literary sources sketch out

its prosperity, while on the other hand, large-scale archaeological surveys and intensive excavations yield a mass of data. Nevertheless, the evolution and functioning of the Red Sea networks in the 9th-15th centuries A.D. remain vague and challenging. As a kind of wide-spread imported merchandise, Chinese ceramics are perceived as the most significant indicator of the far-flung maritime trade between the western Indian Ocean and the Far East. This paper intends to articulate the changing of the Red Sea trade networks in the 9th-15th centuries by analyzing the distribution patterns of Chinese imports. Meanwhile, it is necessary to reexamine the identification and classification of Chinese ceramic findings. The major arguments include: that regular maritime commerce might not be active in connecting the Red Sea with the western Indian Ocean areas before the end of the 10th century; the rise of the Red Sea commerce might occur after the 13th century; and due to the navigational circumstance, it is assumable that no ports served as trading centers in the Red Sea maritime commercial networks in the 9th-15th centuries.

Mining in the Hinterland of the Early Islamic Port of Ayla: The Southern Wadi 'Araba as a Red Sea Frontier
Ian W. N. Jones
University of California, San Diego, La Jolla, CA, USA
   This paper reviews the archaeological evidence concerning the Early Islamic period settlement in southern Wadi 'Araba (in the south of modern Israel and Jordan), focusing on a series of copper smelting camps and associated villages. While quite minor compared to the large Early Islamic industrial sites of the Arabian Peninsula, these camps represent one of the most intensive episodes of copper production in the history of southern Wadi 'Araba. Due to the difficulties of dating these sites, archaeologists have often assumed that they formed part of a hinterland economic system whose chronology essentially matches Ayla's. More recent archaeological research, however, suggests a much narrower chronology, perhaps spanning only the late 8th and early 9th centuries A.D. Drawing on the comparative anthropological, archaeological, and historical literature on resource frontiers, this paper argues that, rather than being an integral component of the economic life of Early Islamic Ayla, the hinterland copper production sites in southern Wadi 'Araba should be understood as a specific, short-lived, and rather early phase in the city's development as an Early Islamic port.

Shaping the Early Islamic Red Sea: The Impact of Agricultural Shipping
Veronica Morriss
University of Chicago, USA
   Scholarship on the Red Sea in the Post-Classical periods has traditionally focused on Indian trade, which was revitalized under the Fatimids and Ayyubids beginning in the 11th and 12th centuries A.D. By the 13th century, the Red Sea was the hub of a widespread international network, leading scholars to propose the beginnings of a World System economy. This thriving economic system, however, represents the expansion of earlier trading networks in the region.
   This paper will push back the timeline for maritime intensification in the Red Sea, proposing that the roots of these later mercantile networks were developed under the Rashidun and Umayyad caliphates. The importance of the 7th and 8th centuries has largely been overlooked due to the paucity of literary and archaeological data. However, a close survey of the available material reveals evidence for

expanding connectivity and resource development, including the rise of state-sponsored grain export, the intensification of agriculture and mining around the Red Sea periphery, and the establishment of new ports. Drawing on parallels with the Roman *annona* (state-sponsored grain trade) in the Mediterranean, this paper argues that the movement of 'non-luxury' goods in the Red Sea during the first centuries of Islam stimulated economic exchange and the development of maritime infrastructure and created persistent maritime pathways for trade. These early phenomena ultimately laid the groundwork for an integrated commercial network in the Red Sea basin.

Aqaba: A Port and Its Hinterland
Tasha Vorderstrasse
University of Chicago, Chicago, IL, USA
   At the north of the Red Sea, the port of Aqaba occupied an important role, not only in the Red Sea and Indian Ocean trade but also in the overland trade in the southern Levant. There are certain diagnostic material culture types that point to the connectivity of Aqaba with other maritime, as well as inland, sites. This presentation will look at how the material culture of Aqaba—such as the Chinese ceramics—compares to other sites along the Red Sea and inland. This will help us better understand how Aqaba played a role in the transshipment of materials into the southern Levant. This paper will also examine the distribution exports from Aqaba—most importantly that of Ayla-Aksum amphora—along the Red Sea as well as in the Indian Ocean and the Mediterranean, which shows the interconnections that Aqaba had within its region and transregionally. The paper will, however, go beyond charting the archaeological finds of different types of material culture and also look at different categories of material culture and the way in which these were being used at Aqaba and beyond. Such a detailed analysis will provide us with more information about mobility and interconnectivity between different regions and populations and the role of Aqaba.

SESSION: 10A. Archaeology of the Black Sea and the Caucasus

Prey and/or Psychopomp? Deer in the Late Bronze Age South Caucasus

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Institute for the Study of the Ancient World, NYU, New York, New York, USA

Manuel Castelluccia recently published (*ANES* 54 2017) the results of excavations by Jakov Hummel at the site of Chanlar, Azerbaijan. Of the Late Bronze Age kurgan burials discussed by Castelluccia, the most provocative was Kurgan 150, which contained remains of a wooden sledge—which appeared to be pulled by two antlered deer ornamented with beads—and a horse, which was placed in a corner in front of the deer. Castelluccia quite reasonably suggests that the deer are psychopomps.

Other deer in the Late Bronze Age South Caucasus were also found in relation to vehicles—in these cases, chariots drawn by horses. They are represented on bronze standards that are placed at the front of the chariot (e.g., those from Qaracemirli and Berklideebi Kurgan 4). Another standard, from Lchashen Kurgan 9, shows a deer represented in front of horses drawing a chariot with human figures, generally interpreted as a hunt. In addition, deer bones are documented in Late Bronze Age archaeological contexts (e.g., Monahan *AJA* 108 [1] 2004).

It appears that the two presentations of deer may reflect two different cultural interconnections. In the contemporary ancient Near East, the hunting of wild animals from horse-drawn chariots was a marker of elite status. In the later Pazyryk Culture (4th–3rd centuries B.C.E.) in the Altai mountains, some horses with antlered headdresses were buried in elite burials, while plentiful, ambiguous wooden horse/deer figures frequented common burials.

This paper will examine whether and/or how these phenomena intersect in the Late Bronze Age South Caucasus.

In Life and in Death: Cultural and Taphonomic Significance of Animals in the Classical Period Ceremonial Complex of Aghitu-3 Cave, Armenia

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Aghitu-3 Cave, located in the Syunik Province of Armenia, is notable not just for its long sequence of Upper Paleolithic deposits inside the cave but also for the Early Iron Age, Urartian, and Classical period ceremonial complexes that overlay those Paleolithic deposits outside the mouth of the cave. Dating to the 4th–1st centuries B.C.E. and the Orontid and Artaxid Dynasties of the Kingdom of Armenia (Armenia Major), the ceremonial complex consisted of a series of burials and associated structures. Contained within and between these burials was a rich faunal assemblage. In this paper we present our preliminary study of animal bones from these contexts. We present some of our key findings based on a detailed taphonomic, taxonomic, and demographic analysis of the animal remains. As we show, a contextual taphonomic approach can shed light on the depositional history of the bones, and by extension, the formation processes of Aghitu-3 during the Classical period. We also examine taxonomic and demographic differences of the animals across several contexts—specifically a stone-box type tomb and a possible feasting feature—to explore the role of animals in the funerary practices of the site. We conclude by contextualizing our findings within the broader economic and political landscape of ancient Armenia at the time.

SESSION: 10B. Approaches to Dress and the Body

'Fictitious Charms:' The Value of Ornament in Gandharan Sacred Sculpture

Alexander Ekserdjian
Columbia University, New York, NY, USA

This paper explores the tensions surrounding dress and the body in the ancient Buddhist communities of Gandhara in Central Asia. Rather than analyzing individual portraits or burial assemblages, this research uses the dress of sacred statues to reveal wider social values. In the shadow of monastic texts that focus on the 'fictitious charms' of material possessions, richly dressed sacred figures have been interpreted by scholars as celebrations of the (upcoming) renunciation necessary to achieve enlightenment. This reliance on textual sources seems to clash with the material evidence from sacred sites but suits a Protestant-derived attitude to religion that is suspicious of ornamentation of any kind.

A reconsideration of adornment in the sculptural record for Gandhara and in the wider context reveals a different interpretation for the rich costume of holy figures. The exuberance of dress details and the mimetic rendering of fine jewelry suggest that the ornament was deemed to be a praiseworthy or auspicious aspect of these devotional sculptures. Understood to reflect the concerns of the lay community—very likely the patrons of such images, for whom prosperity and refined personal appearance were legitimate goals—the dress of these sacred sculptures is shown to be rich in social meaning. The sculpted bodies, adorned with the distinctive dress of the wealthy, acted as (idealized) avatars of the élite within sacred space—demonstrating the connections between temporal power and spiritual riches. This case study serves to underscore the value of *sacred* images for historians of dress concerned with questions of social identity.

Making Ties: Widening Circles of Affiliation at Neolithic Kfar HaHoresh as Expressed through the Molluscan Assemblage

Daniella E. Bar-Yosef Mayer[1], Heeli C. Schechter[2], Nigel Goring-Morris[2]
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The Pre-Pottery Neolithic B site of Kfar HaHoresh served local farming communities as a cultic and mortuary locale, featuring a wide range of often unusual mortuary installations and practices that evolved through time. Burial customs generally change from mostly single, primary, adult burials to multiple secondary burials with bone arrangements, cached or plastered skulls, and an increase in accompanying grave goods. Architectural elements transform from a central monumental walled and lime-plastered podium in the earlier levels to multiple plastered surfaces, cists, installations, post-holes, and combustion features in the later levels.

Over 2,000 marine shells were collected from all levels at the site—dominated by Mediterranean bivalves of the Cardiidae and Glycymerididae families and accompanied by various Mediterranean

gastropods and rare specimens from the Red Sea. 10% of the marine shells exhibit artificial manipulations or discernible use-wear marks. Microscopic examinations found indications for bead manufacture and use with different grinding striations that suggest individual domestic production rather than specialization. Use-wear patterns sometimes indicate stringing, compatible with similar finds from coeval sites, while stylistic choices of bead types reflect both conformity to broad local preferences as well as rare and unique forms.

Viewing adornment as a cultural and social marker provides an opportunity to use Kfar HaHoresh to trace different connections between the population and other communities in the region and beyond. Adornment choices express aspects of personal and collective identity, including hierarchically widening circles of belonging and different levels of the collective identity of Neolithic people in Galilee.

Dress and Adornment among a Cattle Pastoralist People of Nubia
Solange Ashby
University of California, Los Angeles, USA

This paper will discuss the traditions of body adornment and dress among a migratory cattle pastoralist people in Nubia referred to as the C-Group people (for lack of a better name). As the C-Group did not engage in writing, we do not know their name for themselves. This population inhabited Lower Nubia (now southern Egypt) from approximately 2650-1550 B.C.E. Funerary objects such as worked and dyed leather skirts, cowrie shell girdles, bead jewelry and amulets as well as scarification and tattooing preserved on mummified bodies served as markers of identity for this small scale, largely egalitarian population caught between strong neighbors—Egypt to the north and the Kushite kingdom of Kerma to the south.

I will assess the primarily funerary artifacts of this Nubian population through two lenses: that of the "primary pastoral community," as elucidated by David Wengrow in his 2014 *Antiquity* article, and newly emergent theories of gender in Africa, as described in Nwando Achebe's *Female Monarchs and Merchant Queens of Africa* (2020) and Oyèrónké Oyewùmi's *The Invention of Women* (1997). I hope to offer an interpretation of C-Group populations that pushes back against narratives of the centrality of writing, social hierarchy, patriarchy, and the development of military dominance as central tenets of "civilizations."

Silver Acorn Earrings from Tall al-ʾUmayri
Josephine A. Verduci
University of Melbourne, Melbourne, Victoria, Australia

Amongst the large jewelry assemblage discovered at Tall al-ʿUmayri, uncovered over the course of 14 seasons of excavation and survey, are a pair of unique silver earrings (B945120). The granulated acorn-shaped pendant earrings were discovered within occupational debris, which dates from Iron Age I to Late Iron Age II. This type of earring is rarely seen before 7th century B.C.E. examples, which circulated across the Mediterranean during the period of Phoenician expansion. The rarity of the find is due to the use of silver (which was uncommon at Tall al-ʿUmayri and across the southern Levant), the complexity of the design, the fact that these earrings were found as a pair, and the reality that no exact parallel can be found despite the frequent use of acorn symbology in jewelry and decorative motifs from the Late Iron Age as well as the significance of the oak tree in the Hebrew Bible.

Oak trees were a characteristic species of Mediterranean woodlands and a significant biofactor in the ancient landscape of the Southern Levant. The seasonal availability of acorns in the Near East as a component of alternate subsistence strategies suggests that acorns were a symbol not only of fertility but also of nourishment and as an economic resource. The role of gender may affect our interpretation of the motif—if we accept the hypothesis that activities such as acorn gathering and processing can be attributed to women. Thus, acorns were not only an important food source but should be regarded as an important factor in gendered community life.

SESSION: 10C. Thinking, Speaking and Representing Animals in the Ancient Near East: New Perspectives from Texts and Images

A Hidden Pet? The Cat in the Land of Two Rivers
Laura Battini
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Unlike Egypt, where the cat played an important role, Mesopotamia offers very limited documentation on cats, both in textual and archaeological data. This communication aims to bring together the different pieces of a puzzle that is difficult to restore and to question the reasons for this limited documentation.

"And They Spit into Its Mouth": Human-non-Human Animal Encounters in Hittite Anatolia
Romina Antonella Della Casa
Tel Aviv University, Tel Aviv, Israel. Catholic University of Argentina, Buenos Aires, Argentina

The vast majority of Hittite rituals involved non-human animals in one way or another, making their encounters with humans in Ancient Anatolia especially important to understand their agency as well as the complexities of their mutual involvement. This paper looks to contribute to the present understanding of those interactions by focusing on ritual practices where patients (in some cases the king and the queen) spat into other animals' mouths. These practices constituted a fundamental act performed to transform the status of individuals as well as that of other animals and will be explored considering the textual evidence found in the ancient capital of the Hittite Empire, Ḫattuša. Specifically, I will examine Tunnawiya's, Kuwatalla's, and Maštigga's rituals and their references to this type of practices and the concrete animals that function as human substitutes and as means for purification (sheep, oxen, puppies, and pigs). Departing from the examination of the textual material, the attested uses of terms for "spit," "spittle" and "saliva" (in Hittite *allap(p)aḫḫ-* and *iššali-*), the analysis of these rituals will be informed by anthropological approaches to the body and its fluids, and will be considered in its Ancient Near Eastern context.

"Mere" Things or Sentient Beings? The Legal Status of Animals in Ancient Egyptian Society
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Because of the development of Animal Law and the increased impact of animal right activists in our society, it has become increasingly appealing to specialists of the animal world in antiquity to establish how the ancients viewed the various kinds of animals in their surroundings—not so much at a symbolic and spiritual level, but at a more mundane and pragmatic level. In ancient Egypt, for instance, what categories of animals can we identify? How were they incorporated into people's lives? Can we tell if ancient Egyptians

shared some emotional bonds with them? Can we ascertain the legal status of these faunal categories? To address these issues, Egyptologists, fortunately, have abundant documentation at their disposal: not only textual and archaeological evidence but also exquisite representations. By relying on this wide range of data and by adopting an interdisciplinary approach, it becomes possible to draw a more realistic picture of the status of animals in ancient Egyptian society. This paper presents the complex relationship, full of nuances, often discordant to our modern eyes, that the ancient Egyptians maintained with the animal world. After introducing the different categories of animals identified in this society, I argue that, while being considered property, as is still the case in most societies today, animals lived alongside Egyptians of every social status and served many crucial roles that allowed human beings to flourish. Some rules of conduct towards these animals existed to spare them pain and distress, thus transforming them into sentient beings.

SESSION: 10D. Landscapes of Settlement in the Ancient Near East

Archaeological Prospection Using Short-Wave Infrared (SWIR) Satellite Imagery: Case Studies from the Fertile Crescent

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Although archaeologists have relied on aerial and satellite imagery for the discovery and mapping of sites and landscape features for more than a century, most research has focused exclusively on the visible light or near-infrared portions of the electromagnetic spectrum. Because images in the short-wave infrared (SWIR) part of the spectrum (1100-2500 nm) can reveal subtle differences in minerology and soil moisture that are otherwise invisible, SWIR satellite imagery from the Landsat and ASTER programs have long been powerful tools for the mapping and characterization of geologic features and landforms. While the same principles should make SWIR a valuable resource in mapping surface artifacts, architecture, or water-retaining features (such as canals and roadways), the low spatial resolution of publicly available SWIR satellite imagery (30-60 m) has limited its utility for archaeological investigations. As part of a NASA-funded research project, this paper presents results of an experiment to evaluate the potential of higher-resolution (3.5 m), 8-band SWIR imagery that has recently become available from the WorldView-3 satellite program to aid in the identification and mapping of archaeological sites and landscape features in the Near East. With case studies in the Amuq Valley of southern Turkey, the Khabur Basin of eastern Syria, and the Diyala Plains of southern Iraq, results reveal some of the seasonal, land use/cover, and other factors that can impact the visibility of archaeological sites and features, demonstrating the potential and pitfalls of this emerging remote sensing technology.

The Urban Landscape of Early Dynastic Lagash (Tell al-Hiba)

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In southern Mesopotamia, high resolution aerial imagery captured during wet seasons, in concert with other spatial methodologies, can reveal unprecedentedly detailed street and architectural plans. These methodologies, when applied to single period sites or components of sites, have the potential to elevate our knowledge of the intra-city and peri-urban landscapes of early Mesopotamian centers beyond, as provided by the huge early mid-20th century excavations and surveys in

the region. UAV (drone) photos captured at Lagash (Tell al-Hiba) after rainstorms in Spring 2019 show dense near-surface architecture across several hundred hectares, including houses, temples, streets, alleyways, and bounding walls. On the basis of a previous surface survey conducted by Elizabeth Carter, it seems likely that much of this near-surface architecture dates to the Early Dynastic period. Lagash, therefore, provides a rare opportunity to extensively trace the spatial organization of an early Mesopotamian city, its neighborhoods, and immediate hinterland within centuries of their original foundation. In this paper, I present the results of a preliminary mapping of near-surface architectural remains across Lagash and its immediate hinterland. This mapping allows for an assessment of variable residential density in different city quarters and peri-urban areas and for the generation of some hypotheses about early neighborhood characteristics, traffic patterns, population inequality, and hinterland environment.

Change and Continuity: Irrigated Landscape of the Egyptian Fayum in Late Antiquity and Later Periods

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The Egyptian Fayum of the Greco-Roman period (332 B.C.E.–395 C.E.) was sustained by an extensive system of irrigation. However, the Fayum's canals have never been the subject of systematic archaeological study on a regional level. The study of the irrigation system is crucial as it is central to the prevailing narrative that the decline of the Fayum region in Late Antiquity resulted from the failure of the Roman Empire to maintain the canals, leading to the abandonment of these canals and their adjacent settlements. But this widely accepted theory is supported by little archaeological evidence. The history of the irrigation system of the Fayum extends well beyond my period of interest; therefore, I will take a holistic approach that considers changes to the landscape over time. This presentation will map the landscape of canals in the Fayum through a remote survey utilizing satellite imagery, particularly CORONA satellite imagery, as well as textual sources and historical maps. Through the integration of historical maps and texts with satellite imagery, I will attempt to peel back the layers of this complex palimpsest landscape of irrigation canals and to provide insight into possible rupture or continuity connected to abandonment or continued use of canals in the Late Antique Fayum. Tracing the use-life of relict canals will not only illuminate canal use and abandonment in Late Antiquity but will also contribute to understanding shifts in the Fayum's irrigated landscape across periods.

Subsurface Remote Sensing of Assyrian Settlements on the Erbil Plain, Iraqi Kurdistan

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The Assyrian Empire has long been cited as one of the most politically and spatially impactful entities in the Ancient Near East. Deportation practices along with systematic reorganization of infrastructure and settlements fundamentally altered the landscape of the imperial core, encompassing the three main cities of Assur, Nineveh, and Arbela (modern Erbil). The Erbil Plain occupied a significant portion of this heartland. Over the eight seasons so far

conducted in the region by the Erbil Plain Archaeological Survey (EPAS), a more nuanced understanding of settlement patterns in the Late Bronze and Early Iron Ages has emerged. In tandem with this large-scale settlement data, new subsurface remote sensing data of several Assyrian sites allows for a preliminary analysis of individual settlement organization. This paper presents both EPAS's regional data and this new site-level data, bringing in historical records of the empire to further understand Assyrian settlement strategies in the imperial core.

"Ass"essing the Role of Domestic Animals in Ancient Mesopotamia: A Bioarchaeological Perspective from Abu Salabikh

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In the 3rd millennium B.C.E. of southern Mesopotamia, equids were a key resource with diverse functions—which included giving transport to economic goods, providing traction necessary for agricultural production, and acting as valuable prestige animals. Trade, agriculture, and social status are vital topics to explore within complex societies in the region during the Early Dynastic period (ca. 2600 B.C.E.). While textual and archaeological data informs us on the differences in status and access to resources across mature cities, inadequate attention has been paid to these differences in archaeological studies of urban communities using bioarchaeological data. In this paper, we present preliminary isotopic (carbon, oxygen and strontium), cementum, and proteomics/ZooMs analyses of several domestic species (equid, pig, and ovicaprines) to examine questions of mobility, herd management, and production strategies at the Early Dynastic site of Abu Salabikh. Particular attention is given to the equid remains to address questions of both economic and social use. Insights from this data will provide further understanding of urban provisioning strategies and social inequality (elite vs. non-elite) at the site during the time of mature cities in southern Mesopotamia.

SESSION: 10E. Prehistoric Archaeology

The Neolithic and Chalcolithic of Tel 'Ein Jezreel: New finds, New insights

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Tel 'Ein Jezreel is located at the midpoint of the Jezreel Valley, directly above the spring of 'Ein Jezreel. During recent excavations at the site (2013-2018), evidence for long-term occupation were noted. While the majority of the finds noted belong to the Early Bronze Age, substantial evidence for prehistoric presence was noted as well. The current paper describes the prehistoric finds from the new excavation at Tel 'Ein Jezreel, focusing on the early pottery, flint and ground stone tools artifacts from the Yarmukian culture of the Pottery Neolithic period, and the Wadi Rabah culture of the Late Pottery Neolithic/Early Chalcolithic and the Late Chalcolithic period. In the paper, we discuss the significance of the new finds and will contextualize these within broader discussions on the Neolithic and Chalcolithic periods in the Jezreel Valley and its vicinity.

Regionalization and Basalt Vessel Decoration in the Late Chalcolithic Northern Negev

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The Late Chalcolithic period (ca. 4,500–3,800 cal. B.C.) in the southern Levant reflects a mosaic of regional entities. Sub-cultures are defined by differences in material culture including both utilitarian and prestige items. Two Late Chalcolithic regional entities in the northern Negev are the Beersheva and Besor clusters. These are defined by key differences within the ceramic and flint industries. This study investigates the definition of these micro-regions through the lens of basalt vessels and their decoration. Basalt vessels are one of the hallmarks of the Chalcolithic period, abundant at most sites. These are commonly decorated with incised and in-relief motifs that follow a certain set of conventions. Within the northern Negev, the applied techniques mirror the proposed division, with each cluster displaying preferences in decoration style. This pattern is not absolute, suggesting that the clusters had access to both decoration styles but more often than not chose to favor one over the other. Considering this, we suggest that basalt vessel decoration could be used as a powerful tool to assign Late Chalcolithic regional variability within the northern Negev when used in conjunction with other aspects of material culture. While the vessels themselves are commonly considered a universal part of the Chalcolithic material culture repertoire that was shared throughout the southern Levant, their decorations can be used to reinforce differences between sites and micro-regions.

Community and Family Ornamental Traditions in the Early Bronze Age I Cemeteries of the Dead Sea Plain

Julian M. Hirsch
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The Early Bronze Age IA of the Southern Levant (c. 3700-3400 B.C.E.) saw the establishment of several large cemeteries on the Dead Sea's eastern plain. In addition to the remains of several disarticulated deceased individuals, each tomb contained a panoply of grave goods. While each tomb contained varying numbers of pottery vessels, many tombs also contained additional objects such as: basalt bowls, limestone maceheads, shell bangles, clay figurines, and beads made from both exotic and locally available materials. Examining the beads found at the Dead Sea Plain's cemeteries, I argue that differences in the materials and contexts of the beads placed in the region's different cemeteries suggest that the communities who used each cemetery possessed unique ornamental traditions. These traditions governed what types of beads were acceptable to place within a tomb. Further, examining the tombs of the Bab adh-Dhra' cemetery that contained beads, I argue that the multiple ways beads were placed in these tombs suggest that families who used the cemetery possessed burial traditions of their own that persisted over the course of several generations.

Chalcolithic Expansion in the Galilee: The GPP Project in Context

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In the southern Levant, demographic growth and expansion in settlement sizes during the fifth to early fourth millennium B.C.E.

(Chalcolithic Period) occurs simultaneously with dramatic changes: the rise of specialized craft production, long-distance trade of prestige goods, expansion and diversification of agriculture, construction of public ritual architecture, and investment in mortuary ritual. These changes suggest radical shifts in social and economic systems. However, most of our knowledge of these changes comes from sites in the Negev and Jordan Valley. The goal of the Galilee Prehistory Project is to explore evidence for these shifts in the understudied Galilee, with its contrasting environmental conditions and natural resources, and to identify drivers of these shifts in social and economic patterns. The GPP has been excavating in the Galilee for 12 years across several sites. Data from excavations and surveys from across the region now make it possible to better understand the regional context of these phenomena. For this paper, we build upon the existing regional data to synthesize a snapshot of the dramatic changes in population and site density that took place across the Galilee during this vital period.

WORKSHOP: 10F. Grand Challenges for Digital Research in Archaeology and Philology

A Comprehensive Resource for Mesopotamian Civilization: Data Integration and Collaboration in the 4banks Cluster of Websites

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Decades of archeological fieldwork, along with the development of a grammar and database structure for the publication of the data (see urkesh.org), combined with reflection upon method and theory (see critique-of-AR.net), will soon culminate in the publication of the "Four Banks" cluster of websites (see 4banks.net).

4banks is a centralized system that integrates data sets pertaining to the primary and secondary sources regarding Mesopotamian language, politics, literature, art, and religion. Each of these websites contains extensive bibliographical coverage and develops themes relating to content and method. Each site is linked to printed volumes, which serve as the guiding narrative and, at the same time, as an independent bibliographical and topical repository as well as a forum for scholarly conversation.

The five websites devoted to cultural aspects of Mesopotamia are tightly interlaced. Topics that overarch the scope of the individual subject matter of each website are developed concurrently and are cross-referenced. As such, the websites serve as a comprehensive resource for the study of Mesopotamian civilization. An exposition of the methods applied can be found at https://4banks.net/4b/sub-4banks.htm.

In our presentation of the current state of dataset integration in 4banks, we will emphasize methods for scholarly collaboration through standardized metadata schemes—DABI (a proprietary program that dynamically generates the websites from constantly updated data) and current and near-future extensions regarding visualization and automated analysis.

There and Back Again: Tayinat's Tale

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The Tell Tayinat Archaeological Project of the University of Toronto has been working at the site of Tell Tayinat, ancient Kunalua, since 1999. These excavations are built upon the earlier, only partially published, excavations by the Oriental Institute of the University of Chicago in the late 1930's. The research into and publication of the original excavations has been an ongoing project, whose work has been aided by integrating the old pre-digital data alongside the "born digital" data of the new excavations, using the Online Cultural and Historical Research Environment (OCHRE). This work represents a key example of the challenges of integrating legacy data from historical excavations with recently collected data from modern excavations. In addition, data from a wide range of other historic excavations—like those of Antioch, Gezer, and Megiddo—have been collected and safeguarded within the OCHRE computational platform as part of the Computational Research on the Ancient Near East (CRANE) project's database. The CRANE initiative proves the value of a comprehensive, yet customizable approach to data representation, allowing the integration of data from a wide range of excavation projects across both time and space. Examples will be given that illustrate the integration of GIS data, artifactual data, and other primary excavation records from similar legacy/modern projects in the Orontes Delta—specifically data from the capitals of neighboring kingdoms, Tell Tayinat and Zincirli (Sam'al; excavated by an early German expedition 1888-1902, and the Chicago-Tübingen Expedition to Zincirli since 2006).

Integrating Legacy Datasets from the American Expedition to Idalion, Cyprus

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Successive teams of American archaeologists have excavated at Idalion, Cyprus, between 1971–2017. The most recent expedition, directed by Dr. Pamela Gaber (Lycoming College) since 1987, has undertaken the momentous task of digitizing 25 years of archaeological data from three principal areas of the Lower City and the terrace on the East Acropolis. One of our main goals has been to collect, organize, and digitize datasets stored on various media, such as CDs, hard drives, the cloud, and paper records. A grand challenge that we have encountered is how to manage and integrate these many datasets in an innovative database that is both accessible to the archaeologist and comprehensive for the specialist.

For the past several years, we have been using the Online Cultural and Historical Research Environment (OCHRE). The OCHRE database system is equipped with powerful tools for storing, linking, and analyzing data, as well as managing digital resources in a secure repository. Developed with a particular focus on active field projects, OCHRE has proven to be an efficient solution for preserving and integrating legacy data as well. The solutions offered by OCHRE also present us the opportunity to expand our archive with data from the previous expeditions, most of which has been published in print format. The result will be the ability to analyze datasets in greater depth, leading to a more complete and holistic understanding of the ancient city of Idalion.

Data Integration for the Hippos Excavations Project

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This presentation will focus on data integration practice for the Hippos Excavations Project, a long-term exploration effort of one of the Graeco-Roman cities of the Roman East. Particular attention will be given to solutions and problems of integrating data from various experts who study various types of finds.

In 2018, the Hippos Excavations Project upgraded to the Online Cultural and Historical Research Environment (OCHRE) database, which brought about the possibility of collecting a variety of data—previously existing independently—in one place. Written field documentation is now integrated with geographical data and illustrative materials, and, more importantly, the data on various finds from multiple experts are now found in one place and accessible to all involved in the research. While a working solution has been found for some types of common finds (e.g., coins and architectural items), we are still looking for improvements for some other prevalent find types (e.g., pottery). This presentation will emphasize the still-problematic categories of find types to open a discussion on possible solutions and practicality of their implementation.

Poster Session

Beyond the Oasis: The Ancient Cultural Landscape of Bat and the Sharsah Valley

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Landscapes are a medium of activity that come to reflect and inform the cultural practices and beliefs of the human groups that create and occupy them. Yet studies of arid landscapes—especially those focused on the Near East—often privilege questions that target access to water above those that seek to explore the behaviors, meanings, and relationships that create cultural spaces in physical places. The emphasis on the constraints of arid landscapes has also limited understanding of the generative roles such landscapes play in the societies that live in and engage with them.

This poster introduces the Bat Archaeological Project's new, National Endowment for the Humanities- supported investigation into the Umm an-Nar period (ca. 2800-2000 B.C.E.) cultural landscape of the UNESCO World Heritage Site of Bat and its surroundings in the Sharsah Valley of northwestern Oman. During this period, Bat was home to a series of resilient communities located in a hyper-arid environment. By conducting archaeological excavations and surveys, the project will study the cultural processes and socio-ecological strategies practiced by the Umm an-Nar. The resulting reconstruction of an ancient cultural landscape will resituate the critically understudied Omani interior in ongoing debates on connectivity and human-environment interaction in prehistoric societies and build a case study for a persistent, thriving cultural landscape in an arid environment.

Citation Network Analysis of the *Bulletin of ASOR (BASOR)*, 1970-2020

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The Bulletin of ASOR (BASOR) is a well-known, peer-reviewed academic journal for research on the ancient Near East. Founded in 1919, BASOR is the oldest journal currently under the auspices of the American Society for Overseas Research (ASOR), one of the largest scholarly societies in the field of Near Eastern Studies. The journal self-describes as publishing research by both emerging and established scholars of the ancient world, covering topics related to the Levant, Mesopotamia, Cyprus, Anatolia, Iran, Caucasus, and Egypt with a chronological range from the Paleolithic era through today. Because of its longevity and status in the field, BASOR is a prime candidate for historiographical analysis of the fields covered by the journal, and by ASOR, more fully. This poster will use citation network analysis covering all research articles published in BASOR from 1970 through 2020 as an analog for reconstructing the community of scholars formed by citation in each other's work. Using the directed graph of citations, linking one research document to another and therefore one researcher to another, the resulting visualization will reveal properties of this modern scholarly network. The directed network graph and this poster will answer the following questions: Who is the most regularly cited? Who is the least? Where do paradigm shifts occur in the field, if at all? How easy or difficult is it for a new scholar to enter the canon of the field? This research will be a first step in better understanding the history of ancient Near Eastern studies.

A New Archaeological Map of Central Asia in Antiquity

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This poster presents the project "An Archaeological Map of Central Asia in Antiquity" (AMCAA), a new archaeological gazetteer for Hellenistic Central Asia that draws together known sites dating to the Hellenistic, post-Hellenistic, and Kushan period. Presently, there is no single resource, in print or digital format, that provides a comprehensive, multi-regional overview of known Hellenistic sites in Central Asia. This new archaeological map will provide students and scholars of Hellenistic Central Asia with an easy geospatial referencing system for the advancement of future work in the field. This database provides a single, open-source resource for known sites, considering all published Soviet, post-Soviet, and European archaeological surveys of Afghanistan, Tajikistan, Turkmenistan, and Uzbekistan. Approximately one thousand Hellenistic through Kushan period sites have been meticulously mapped in this database thus far, with several hundred more to be added by project completion in Summer, 2022. AMCAA will be published as an open-source digital format online for immediate user download as a GIS shapefile, hopefully by the end of 2022. Users will be able to engage with data that includes site names, geographic coordinates, a new site referencing system, fieldwork history, fieldwork strategy, site specific bibliographic information, general chronologies from the 4th century B.C.E. – 4th century C.E., and limited typological information. This project is developed and undertaken by Zachary Silvia alongside his doctoral research and facilitated by a 2020-21 Digital Scholarship Graduate Fellows award from Bryn Mawr College.

Aspects of Creativity in the Assyrian Dream Book

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Working with the framework of Conceptual Metaphor Theory and cognitive creativity research, I argue that the Assyrian Dream Book contains a number of interesting semantic properties reflecting what is known as 'exploratory creativity.' This kind of creativity reflects the idea of a creator fashioning an object by metaphorically traversing a creative path in the space of conceptual possibilities. I argue that the features in the Dream Book which illustrate this creativity are spelled out in omen prodoses, and include conceptual elaboration and abstraction, contextual frame shifting, and a quasi-random enumeration of elements in a given knowledge domain. I also argue that the Dream Book can be seen as a series of blocks of omens which instantiate cognitively rich semantic domains and which are linked by principles of creative association. Each block in turn is generated by a kind of 'exploratory walk' that capitalizes on the hermeneutic techniques familiar to advanced cuneiform scribes. The arguments I present should be of interest to Assyriologists because they indicate Akkadian omen collections reflect elements of creativity usually reserved for fictional narrative. Rather than thinking of an Akkadian lexical list or omen compendium as an exhaustive survey of a given domain of knowledge, we should recognize within it a heuristic exploratory principle akin to what is found in creative story-telling.

Excavating Site 12 in Timna Valley: More Lght on (Edomite?) Copper Smelting in the Turn of the 1st Millennium B.C.E.

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The copper rich Timna Valley, located north of Eilat, Israel, covers roughly 80 square kilometers and was the source of copper that was traded widely in the Mediterranean Basin throughout the early Iron Age (~1200-800). Archaeological excavations and surveys in the Timna Valley have been carried out by the Central Timna Valley Project of Tel Aviv University since 2012 (https://www.tau.ac.il/~ebenyose/CTV/). These investigations have focused on multiple copper smelting camps as well as mines where the copper ore originated.

During the 2020 excavation season (February 7-18 and December 20-31), Site 12 was excavated for the first time. Five areas were opened, three to explore crudely built architectural remains visible on the surface and two to examine depositions of smelting waste and their relation to nearby architecture. Among the finds are multiple short lived organic samples (seeds) that yielded carbon 14 results and four sets of human remains. The seeds provided 14C dates that place the occupation of the site in the 11th-10th centuries B.C.E., well after the period of Egyptian hegemony in the region. These results strongly support the paradigm that the most intense exploitation of the valley's copper ore occurred during the turn of the 1st millennium B.C.E., when the local tribes of the Arabah and neighboring regions coalesced into a political unit (Edom) that orchestrated copper production and trade. The finds shed more light on the organization of production, technological achievements, burial practices and more.

Investigating Changes in Human Diet at Tell Kamid el-Loz, Lebanon between the 2nd and 1st Millennium B.C.E. through the Analysis of Plant Microremains from Dental Calculus

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Tell Kamid el-Loz, identified as the site of Kumidi in the Amarna Letters, is located in the Lebanese Beqa Plain on the central trade axis between the southern Levant and the early urban centers of Syria. Human settlement on the tell flourished during the Middle (ca. 2000-1600 B.C.) and Late Bronze Age (ca. 1600-1200 B.C.), as attested by the temples and palaces uncovered during excavation and lost its importance in the Iron Age (1200-600 B.C.), the most important find in the subsequent Persian period (600-330 B.C.) being a large cemetery.

Approximately 108 burials of individuals dated between the Middle Bronze Age and the Persian period were uncovered at the site. Some of these burials had previously been investigated within the framework of the Max Planck Harvard Research Center for the Archaeoscience of the Ancient Mediterranean (MHAAM) at the Max Planck Institute for the Science of Human History in Jena (MPI-SHH) to identify population genetic developments, biological relationships between individuals, their mobility, and diseases. In addition, many of the individuals were radiocarbon dated. Of these burials, fifteen usable samples of dental calculus from individuals dating to the Middle Bronze Age through to the Persian period were studied using phytolith and starch analysis to understand the diversity and dynamics of individual human nutrition. Here, I will present the initial results of the micro-remain analysis carried out on dental calculus from individuals at Kamid el-Loz and outline the next steps for the project.

Stepped Pools in the Roman Palestine

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More than 850 Hasmonean and Early Roman period stepped pools from Southern Levant have been interpreted as ancient miqva'ot, Jewish ritual baths, largely based on the Mishnah and later rabbinic texts and traditions. Scholars have focused on these pools primarily as ritual immersion baths, either for private or public use. In this project, I study these water structures from a multifunctional perspective as part of the household and daily life. I approach the stepped pools as ancient water collectors and contextualize them within contemporary research on other ancient water installations (e.g. cisterns, fountains) found in the Eastern Mediterranean. One of the objectives of this research is to examine the archaeological data first within its proper archaeological context as an ancient water installation—from rainfall and generated runoff, through collection and storage, to use and eventual discard—using rainwater-harvesting models it is possible to evaluate seasonal and annual water fluctuations in the pools. Questions about changes of water levels in the stepped pools, and the potential need to fill these pools during the dry seasons shed light on the role of stepped pools in household contexts and daily life in the Southern Levant during the Hasmonean and Roman periods.

"Something from the Time of Jesus:" Tourists, Souvenirs, and Buying the Holy Land

Morag M. Kersel
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Who doesn't want "a pot from the city of sin?" (tourist 43) or "Something from the time of Jesus" (tourist 12) – everyone who visits wants to own a piece of the Holy Land (modern Jordan, Israel, and Palestine). Under the Antiquities Law 5738-1978 of Israel, it is legal to buy artifacts in shops licensed by the Israel Antiquities Authority and many tourists take advantage of the licensed trade. As a part of my research into the movement of archaeological artifacts and the laws that facilitate and impede this movement, I conduct ethnographic interviews (DePaul University IRB protocol #MK051412ANT) with tourists who buy artifacts as mementos of their visit. After many interviews, patterns began to emerge such that I grouped sets of consumers together, creating a series of categories based on shared characteristics. In this poster, I will present the types of consumers, the shops they visit, and the materials they procure. Critical to understanding the mechanics of the antiquities trade and the motivations of the associated actors is the recognition of the commonality of demand. Whatever the reason, tourist demand for archaeological artifacts from the Holy Land results in archaeological site destruction, theft from museums, and a compromised understanding of the past.

Remote Sensing and Remote Work: New Insights into the Social and Scientific Structure of Conflict Archaeology

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Remote sensing technologies have long provided archaeologists with opportunities to conduct off-site and virtual research and collaboration. Developments since 2016, including political instability in the Middle East, intensifying climate change, and the global pandemic have sparked new questions about the scientific effectiveness of

remote collaborative structures. They have also highlighted the intersecting needs of archaeologists as they balance work and personal life. What do we know about the scientific robustness of new work scenarios in archaeology? Based on in-depth interviews with archaeologists who collaborated remotely during an intense period of the Syrian civil war ("conflict archaeologists"), we address this question and illuminate the processes and structures they used to ensure scientific reliability and robustness in their work. The findings have implications beyond conflict archaeology, and for the wider landscape of archaeological collaborative structures adapting to remote work and remote technology.

Application of Proteomic Sex Determination Method Via Enamel Sampling to Subadult Remains Recovered from the St. Stephens Byzantine-Era Monastery

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Our work applies a relatively new, proteomics-based method of sex determination to a collection of subadult remains from the St. Stephen's Monastery in order to get a better demographic profile of the site. St. Stephens is a Byzantine-era monastery underneath which the remains of many adults as well as subadults were discovered in an Iron Age tomb. These subadults aren't mentioned in historical texts, and their role in relation to the monks they were buried with in the Iron Age tombs is unknown, uncovering their sex can help elucidate possibilities. This proteomic method allows for a sex estimation from a single tooth, making it especially useful for sex estimations in situations where remains are commingled or subadult (such as at St. Stephens) as both can preclude many osteological sex estimations, or when sufficient DNA for a genetic sex estimation cannot be recovered. Our method identifies variants of the sexually-dimorphic protein, amelogenin. Amelogenins are involved in the generation of tooth enamel, and the protein is coded for on both X and Y chromosomes. The various isoforms of the protein vary slightly making it possible for the proteins, trapped in tooth enamel, to be sampled using LC-MS. Enamel sampled from females will contain only X-chromosome isoforms of amelogenin while enamel sampled from males will contain both X and Y isoforms. Results indicate most of sampled subadults were male (though the youngest and oldest sampled subadult teeth were female) and demonstrated the applicability of amelogenin-based sex-estimations which allow us to better understand commingled and subadult skeletal collections.

A Geospatial and Typological Investigation of Late Antique Coins From Umm el-Jimal, Jordan

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This poster reports on a project that categorizes and classifies late antique coins from the site of Umm el-Jimal, Jordan. These coins are classified on the basis of figures, inscriptions, and people depicted on the obverse and reverse of the coin, the age of each coin, as well as the denomination of the coin. Geospatial analysis via ArcGIS is accomplished by mapping each coin with reference to mintmark and the on-site location where the coin was found. It is argued that this location-based analysis can help to determine patterns of trade and commerce within the eastern provinces of the Roman Empire, the Eastern Byzantine Empire, and the Umayyad Caliphate. Evidenced from coins found on-site, commerce at Umm el-Jimal spanned from the first century B.C.E. to the seventh century C.E.

This project builds on a background of applying geospatial methods and technologies to the field of numismatics in an ancient/archaeological context. Additional material that lays the groundwork for this project includes published research investigating commerce, trade, infrastructure, and development in the ancient/early medieval near east, as well as recent research that has used Umm el-Jimal's ceramic corpus to investigate the site's connection to economic and trade networks. This project also seeks to delineate areas of economic significance within the Umm al-Jimal complex by means of mapping clusters of coins found on site and correlating the locations of these clusters with ages and themes present in the coinage. This kind of categorization and investigation also contributes valuable information about the social class and wealth of the occupants of this former Roman trading post.

Anaharath, Amarna Letters (EA237-239), and Tel Rekhesh

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The town of Anaharath, mentioned in Egyptian historical records in the 15th century B.C.E., is thought to have been located north of the Jezreel valley in the southern Levant. It is included in the town list of Thotmose III and is known as one of the targets of the second campaign of Amenhotep II.

It was Aharoni who identified Anaharath with Tel Rekhesh about half century ago. Then in the 2000s, interdisciplinary research on the Amarna Letters conducted by Tel Aviv University showed that the three tablets (EA237-239) probably originated from Tel Rekhesh based on their petrographic observations. Although these views have been generally accepted, information on the site itself is based on the old survey results and needs to be updated in light of the recent excavations.

In this poster, we will present the Late Bronze Age remains excavated in 2008 and 2016 by the current project and reconsider the site identification. The excavations have only partially reached the Late Bronze Age strata, due to the later period accumulation. Nevertheless, it was confirmed that the settlement would have been surrounded by a perimeter wall in the beginning of the Late Bronze Age, and that a settlement of the Amarna period existed on the site. The preliminary results of our pilot petrographic study of typical pottery of the period are then examined for comparison with the tablets.

Viewing the Distribution of Stone Tools at Tel Burna through Network Analysis

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Several methods have been applied to understand the typologies, functions, and provenances of stone tools in the ancient Near East, but digital network analysis between stone tools, related artifacts, and spaces is still rarely used. Network analysis, which has been widely implemented in other archaeological inquiries, is a potential method that has been mainly used for understanding the distribution of ancient sites and route networks in different geographical settings. The assemblage of stone tools was found in an enclosure in Area B1 at Tel Burna, Israel. This enclosure is dated to the 13th century B.C.E. and

the finds suggest that the enclosure was used for Canaanite ritual activity. The purpose of this poster is to explore how network analysis can also be applied within this context and to determine the relationship between stone tools. The method sets the distribution of stone tools as a basic pattern, calculates the optimizing X- and Y-coordinate and generates networks based on the typologies, functions and relative positions of stone tools. The algorithm of the calculation uses Python as the coding tool with multiple built-in packages. Results will show the relationship between stone tools and other artifacts, as well as demonstrate the similarity and difference between patterns of distribution and networks. This will provide advanced insights into how the space and human cultic activities related to each other within the Canaanite cultic enclosure at Tel Burna during 13th century B.C.E.

Esbus and the Decapolis

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The purpose of this research was to ascertain whether or not Esbus was part of the cultural program of the Decapolis. Answering this question gives us a better understanding of the relationship between Esbus and the Decapolis, as well as a better view of the overall cultural landscape of the Decapolis. The Decapolis itself was a group of ten cities in the southern Levant around the turn of the 1st Millennium A.D. The cities formed this group owing to their common Greek language and culture, in contrast to the surrounding nations and tribes. The research entailed reviewing existing literature, gathered from various academic databases, on the excavations at Esbus and the ten cities of the Decapolis. Around 30 studies were reviewed, and then from here we could identify what elements of the classical Greek set was possessed by each. The classical Greek set, simply referred to in the research as "the set", was a number of aspects that comprised the traditional Greek city. These were elements such as the city acropolis, agora, temple, theatre, and so on. We found that Esbus possessed as many, or more of these elements than the average Decapolis city. The poster would include the abstract, summary of the research significance, a map of the Decapolis, a summarization of our findings, as well as references.

Multimedia Tools for Teaching in a Post-Pandemic World

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During the COVID-19 pandemic, many post-secondary instructors adjusted their syllabi to include accessible digital materials as part of virtual learning. Many valuable resources existed prior to 2020, including online collections and databases like the Cuneiform Digital Library, virtual museum tours and institutional digital humanities projects like Digital Karnak, and media such as recorded lectures, videos, and podcasts. However, within the last two years, available resources have expanded exponentially as faculty, museum experts, institutions, and enthusiasts invested significant time and labour in developing online content. From digital excavations to virtual site tours, students can now interact with the ancient world in ways that had previously been impossible.

New projects range from expensive, institution-based initiatives (e.g., digitized museum collections and VR builds) to more grassroots projects (e.g., Everyday Orientalism and Peopling the Past). These interactive and innovative resources allow us to design curricula for ancient Mediterranean studies that break-free from objectivist learning and traditional textbooks, creating opportunities to enhance learner engagement and facilitate the construction of more tangible connections with the peoples and cultures of the past. This poster explores two distinct forms of educational digital media—podcasts and videos—and discusses best practices for incorporating these media into undergraduate ancient Mediterranean studies courses. These case studies will highlight examples that incorporate digital ancient world media in student-centered curricular design and authentic active learning assignments. We will discuss the pedagogical methods and rationale behind the strategies of using digital media, and showcase the benefits these resources afford teachers and learners alike.

Macrobotanical Evidence for Southern Levantine Iron Age Subsistence Based on Published Data

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Overviews of subsistence during the Iron Age of the southern Levant lack discussion based on (macrobotanical) archaeobotanical remains, instead focusing on material cultural remains (e.g. farmstead sites, olive presses, pithoi, granaries, and silos) and palaeodemographic interpretations based on site size and organization. Although there are ~114 sites listed in recent synthetic chapters (Steiner and Killibrew 2014), only 26 have published data, and much of this published data lacks tabulated, numerical data and only has presence/absence data. Published data was interpreted using proportional data of cereals, legumes, and fruits; spatial autocorrelation against location, elevation, and precipitation using ArcGIS; and correspondence analysis because of the large number of presence/absence data. Results using these methods show no statistically significant subsistence patterns in the Iron Age. To correct this situation, increasing financial support of archaeobotanical research, publication of raw tabulated archaeobotanical data outside of grey literature, and increased integration of archaeobotanical and zooarchaeological datasets is necessary.

SESSION: 11A. Archaeology of Anatolia I

Continued Work at Çadır Höyük: The 2021 Season

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After our 2019-2020 study seasons, excavations were re-opened for the 2021 season. We continued work in the three primary occupational periods that have been investigated for the last two decades: the Late Chalcolithic (4th millennium B.C.E.), the 2nd and 1st millennia B.C.E., and the Byzantine occupation (ca. 7th-13th centuries C.E.). The primary focus in the Late Chalcolithic excavations was continued exploration of our earliest "agglutinated" phase (the early 4th millennium B.C.E.), which includes at least two housing compounds. We also investigated the Upper Town occupation (mid-4th millennium B.C.E.), which constitutes a third northern housing compound. Results of this work will be presented.

We continued our work exposing 2nd millennium occupation, including the Hittite occupational areas on the northern and southern slopes of the mound. These excavations offered additional insights into the transition from the Hittite to Early Iron Age periods at Çadır.

The Byzantine operation on the mound summit was designed to better understand the 7th century gate revealed in the 2017 season and the chapel revealed in the 2018 season. Findings from these investigations will be presented.

During the 2021 season we also undertook efforts to begin a greater exploration of the Middle Bronze Age occupation, primarily on the eastern and northern slopes of the mound. Our initial investigations in these new areas will be discussed.

Occupying and Exploiting the Offsite Zone of the Late Neolithic Settlement at Çatalhöyük

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The ongoing work at the Neolithic settlement at Çatalhöyük has significantly contributed to an in-depth understanding of the social dynamics of its inhabitants throughout its occupation. It made it possible to go beyond single excavation areas, with their own stratigraphic sequences, at the expense of a broader picture depicting shifts and re-locations of different inhabited areas in subsequent decades and centuries of the settlement use. As a result, this work revealed a much more dynamic character of the social fabric of the Çatalhöyük community, which was particularly distinct in its final phase. Irrespective of these significant advancements, relatively little attention has been paid to the exploitation and occupation of the offsite zone of the settlement.

Using the results of the most recent investigations, including the ongoing work in the East Area, this paper will examine the character of both inhabited and otherwise used areas within the perimeter of the settlement in the final four centuries of its occupation. It will also scrutinize these results in relation to the character of life of the Çatalhöyük community, as revealed by the work in different parts of the settlement itself. Placing this hitherto unexplored zone of existence of the early farming groups at the center of our investigation adds an innovative dimension to the study of the Near Eastern Neolithic.

Understanding Use of Space in Ancient Cities: Continued Modeling and Simulation of Kerkenes, Central Anatolia

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The large Late Iron Age (from the late 7th to the first half of the 6th century B.C.) urban center at the site of Kerkenes in Central Anatolia provides a unique opportunity to research the social organization of an ancient city. The Kerkenes Project has been generating significant data sets through remote sensing and traditional excavation methods since the early 1990s, which have allowed for the identification of the entirety of the city's foundation. These data are optimal input for modeling and simulation methods that currently provide insights into social interaction within modern urban spaces. While techniques from the modeling and simulation field are often used to understand modern cities, the current research is finding successful application of these methods for understanding ancient cities as well. The current project expands the work of traditional archaeological methods by incorporating emerging technologies—including cellular automata, space syntax, and agent-based models. This paper will outline ongoing research into the application of these approaches at Kerkenes—sharing pilot study results that demonstrate the usefulness of these methods in increasing the understanding of social organization within the city.

An Architectural Biography of a Late EBA House at Titriş Höyük

Timothy Matney
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Excavations between 1991-1999 at the Early Bronze Age urban center of Titriş Höyük in the Şanlıurfa province of southeastern Turkey uncovered over 5,000m² of architecture, mostly domestic structures dating to the Late Early Bronze Age (ca. 2300-2100 B.C.). It is well documented that the city was largely rebuilt at the beginning of the Late Early Bronze Age during a massive project that saw the abandonment of the peripheral areas of the Mid-Early Bronze Age, the construction of a large fortification wall, and the rebuilding of housing stock across most of the city. While urban planning at Titriş in this initial Late Early Bronze Age rebuilding phase is well documented, the details of the actual house construction and subsequent use-life, evolution, and abandonment of the domestic architecture have not been fully explored. This paper examines the evidence from a single house, House 1, a large (260m², 20.8m x 12.5m), multiroomed structure (15 rooms) located at the intersection of two streets near the city's fortification wall. We have previously hypothesized that House 1 was a residence for an extended family. This paper presents new research using several analytical techniques to evaluate the occupational nature of the house, the functions of its various rooms, and architectural modifications made over the house's estimated use-life of one and a half centuries. Analyses include architectural energetics, access analysis, detailed phasing of the stratigraphic layers, and the distribution of finds from House 1. Comparanda place the Titriş built environment within the broader architectural trends of Late Early Bronze Age of southeastern Anatolia.

Sacred Trash: Ritual Deposits of the 1st Millennium B.C.E. at Kınık Höyük-Niğde, Turkey

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Kınık Höyük-Niğde is a multi-period mounded site with occupation phases ranging from the Early Bronze Age to Late Antiquity. Excavations on the north side of the acropolis have produced substantial remains dating from the Late Achaemenid to Late Hellenistic periods (ca. 4th-1st centuries B.C.E.), including a building complex in the northwest—interpreted as a sanctuary due to the discovery of significant deposits of votive objects within the structure and stone and ceramic statuary buried in the adjacent stone-paved plaza. While an earlier sacred space has not yet been discovered, several objects with archaic characteristics found within the sanctuary suggest an Iron Age predecessor at the site. The excavated Iron Age remains further support this hypothesis. A structure in the northeast of the acropolis has produced a Late Iron Age (ca. 7th-6th centuries B.C.E.) midden heap with a rich painted ceramic assemblage and a peculiar faunal assemblage, which is characterized by a disproportionate number of caprine scapulae, nearly all from the right side. While appearing at first glance as a typical domestic refuse pile, albeit rich in materials, the specific characteristics of this context suggest, instead, a deposition of cult offering remains—a claim also supported by ongoing excavations in an adjacent room. This paper will draw on regional comparanda to argue for the ritual/cultic nature of this Late Iron Age deposit and demonstrate a continuity of cult space and sacred activity at Kınık Höyük-Niğde during the 1st millennium B.C.E.

SESSION: 11B. Persia and Arabia in Late Antiquity: Bridging the Ancient and Islamic I

Where is the Sasanian Small Change? Bimetallism and Base-metal Coinage in Ērānšahr

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A common assumption is that the Sasanian monetary system included only high-value silver coinage. However, recent studies demonstrate that all of the kings of this period also issued low-value bronze coins. The need for fractional money was already evident in the Achaemenid period. Persepolis Fortification Tablets show that payments were increasingly made in silver, and low-wage laborers received 1 shekel or less. Weighted silver proved inconvenient and inefficient, especially for small payments. In Seleucid and Arsacid Babylonia, individuals and temples were heavily reliant on marketplaces for buying goods, a phenomenon that required a large supply of small change. The Seleucids introduced bronze coins in Mesopotamia, Iran, and Central Asia, but the ratio between silver and bronze was not sufficient; a problem that encouraged the population to hoard silver. The Arsacids reformed this bimetallic system by issuing high-value and low-value silver coins, but also by distributing an astounding number of bronze coins across the empire. After the Arsacids, early Sasanians instated a single-currency system of silver following the monetary tradition of local kings of Fars. Even though this system included fractional silver, the Sasanians soon recognized that only a bimetallic system, with both silver and bronze coins, would fully monetize the economy of a vast empire. This paper relies on the Sasanian evidence to demonstrate the necessity of fractional money

for standardizing prices in a monetary economy. Why was a single-currency system not feasible in the Sasanian empire, even though it was fully functional on a local scale in Fars?

Dating Formulas in Post-Sasanian Middle Persian Documents

Jamie OConnell
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This paper will trace the origins, development, and geographical spread of two dating systems, known as the Yazdegerd Era and the Post-Yazdegerd Era, used contemporaneously in Late Antique Persia after the fall of the Sasanian dynasty. Until recently, the Yazdegerd Era was assumed to have been the more common of the two, as the Post-Yazdegerd Era was only known from legends on coins minted by the Dabuyid dynasty and later Abbasid governors in Tabarestan, and from colophons of Zoroastrian manuscripts copied in Iran and India beginning in the eleventh century. Evidence provided by recently published collections of seventh and eighth-century Middle Persian administrative and legal documents from Tabarestan and Qom suggests that the use of the Post-Yazdegerd Era may have been established as many as fifty years before it was employed on the coins of Tabarestan. The usage of this dating system therefore cannot be considered a Dabuyid innovation instituted as part of an anti-Arab policy, as has been argued in previous scholarship. The continued employment of these two eras on coins long after 651 C.E., as well as the contents of the documents from Qom and Tabarestan, supports the position that the Arab conquest was a gradual process in post-Sasanian Iran and its effects were often region-specific.

Cash is King: Numismatics & Legitimacy in the Time of 'Abd al-Malik (ca 680-705 C.E.)

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Perhaps no other Umayyad Caliph has received as much scholarly attention as 'Abd al-Malik b. Marwān (d.705 C.E.). 'Abd al-Malik emerged as the victor in the second Islamic Civil War (680-692 C.E.), commissioned the construction of one of the most recognizable examples of Islamic architecture, the Dome of the Rock, and initiated a series of numismatic and administrative reforms that helped fashion an Islamic imperial ideological vocabulary. Scholarship has been particularly interested in this process of numismatic reforms: from Byzantine and Sassanian imitations to aniconic epigraphic coins in Arabic. For many scholars these evolving slogans and reforms echo a debate about legitimacy and religious identity; thus, the content of coins is prioritized, rather than the output at particular mints.

This paper, however, adopts a more conservative approach to pre-reform Umayyad-era coins and argues that imperial legitimacy was not projected simply by the content and imagery stamped on coins, but by the distribution and acceptance of a currency within an economy. The paper examines the numismatic output of two mints that noticed a sizable uptick of numismatic production during periods of internal strife—namely, between rival governors in Marv during the Second Islamic Civil War (681-692 C.E.) and during a Kharijite opposition in Bishapur (692-695 C.E.). The paper demonstrates that attempts to correlate theological belief with numismatic slogans can lead to misguided interpretations about both the development of Islamic doctrine and the priorities of an empire.

"If I weren't a servant of the Iranian king…", The Nasṛids of Arabia: Alliances and Doctrines

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Around 224, the Parthians were substituted by the Sasanians who immediately embarked on a war against Rome. The latter was experiencing a period of internal crisis worsened by ecological phenomena and a plague. The renewed animosity between the two superpowers of Late Antiquity had immediate repercussions in Arabia, causing the fall of valuable buffer states such as Palmyra and Hatra, and the employment of Arabian allies in areas where the Romans and the Iranians could no longer easily exercise direct control. After having shed light on the socio-political situation of North Arabia and the *Konfliktbeziehung* (conflictual relation) between empires and local dynasties, I will focus on the impact of Constantine's conversion, arguing for an instrumental role of Christianity among the North Arabian urban elites. In the fourth century C.E., Iran allied with the north-eastern Arabian dynasty of the Nasṛids who converted to Christianity only at the dawn of Islam. I argue that the Nasṛids retained pagan beliefs to remain neutral towards the developments of the surrounding empires. In the sixth century, cults became increasingly exploited to eliminate political entities and gain control over lucrative trade routes. The Nasṛids thus converted to Christianity, plausibly aiming to maintain control of their seat, but were eliminated by their allied superpower. The dismantlement of the regional federations of North Arabia, as well as Iran's conquest of South Arabia, eventually led to a void of power and the resulting formation of the Caliphate.

SESSION: 11C. Archaeology of the Near East and Video Games

Building Cities, Building Games: Developers' Inspirations and Intentions

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In 2012, MoMA curator Paola Antonelli unveiled a bold exhibition of fourteen classic video games in the Applied Design gallery of the museum. This was the first time that video games had been displayed as art, and the first time that they were broadly received in academia. Since then, video games have seen a rise in academic attention, and only recently, academic interest in them exploded with the trend termed "archaeogaming."

Archaeologists "academicizing" video games set in antiquity—certain of which have been around for 30 years—have mostly concentrated on the accuracy of the representation of antiquity (up to and including how any inauthenticity in its representation in pop culture damages the field). Such interpretations ignore probably the most important component of games: the developers themselves. These interpretations presuppose both that the mainstream audience is absorbing games (or movies & tv shows) as documentary, and that the game developers intend to present their creative projects as fact rather than as inspired by antiquity.

My talk is based on interviews with the developers of the city building games *Pharaoh, Nebuchadnezzar, Builders of Egypt,* and *Sumerians,* chosen particularly because they focus on the development of civilizations over time and therefore required more in-depth examinations of the anthropological aspects of Egypt or Mesopotamia. I discuss the developers' inspirations, intentions for the games' receptions, and views on the academic topic of and approaches to archaeogaming, as well as consider how the topic may be better served in academia by acknowledging developers' roles.

Parthian Pajama Pants and Sasanian State Sanitation: Depictions of Ancient Iran in the Total War Series

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This paper examines the depiction of ancient Iranian peoples and cultures in the *Total War* series of turn-based strategy computer games. It begins with the series' first inclusion of Iranian peoples in 2004's *Rome: Total War* and traces their representation through the most recent entry with an ancient setting, 2015's *Total War: Attila.* By analyzing the developmental history of the depiction of the ancient Iranian world in the *Total War* series, we observe both the perseverance of Orientalist tropes—most notably in the realms of dress and cultural misunderstanding of Zoroastrian religious practices—and the efforts to create more archaeologically and historically grounded representations of the Achaemenian, Parthian, and Sasanian states, which exercised hegemony over the ancient Near East for nearly 1,000 years.

Recent scholarship has increasingly acknowledged the role of video gaming as a point of introduction for many to the ancient world. However, these games privilege the Greco-Roman world of the ancient Mediterranean and its cultures, while depictions of peoples and places beyond the Mediterranean littoral are often distorted, if not omitted entirely. Given the chronological setting of Classical Greece and Imperial Rome, the distortion or omission of these cultures and polities robs the player of much of the vibrancy and diversity that characterized west Eurasian antiquity. By interrogating the tropes and narratives present in the *Total War* series, we can identify points of ambiguity or disjuncture that can aid in improving the ways in which the ancient world is presented to audiences in a broader, global context.

Upside-down Cuneiform and the Re-Use of Ancient Near-Eastern Artifacts in Paradise Killer

Erica L. Meszaros
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Paradise Killer, a psychedelic, open-world adventure game from Kaizen Game Works, takes place in an alien world yet litters its vibrant settings with ancient Near Eastern writing and art. No attempt is made to contextualize these artifacts, providing any information of their history or the cultures where they originated, and no effort is made to blend them seamlessly into the new world. Instead, pixelated images of cuneiform tablets are hung upside-down on walls and color-saturated photos of ceramic panels are framed as art. Paradise Killer's use of characteristic items of the ancient Near East showcases a profound disengagement from the communities it seeks to reference. However, the game replicates ways that these archaeological items have been recycled and put to other, non-intended purposes over time, even on our non-fictional planet.

This paper discusses *Paradise Killer's* use of ancient Near Eastern artifacts through the lens of the recycling, re-appropriation, and reuse of ancient structures and ideas. It will argue that for a setting as removed from our world as *Paradise Killer* is, the separation of these artifacts from their history works to highlight the alien-ness of the world and to create a new relationship between this fantastical land

and our very real one that does not fully erase the histories of these objects but rather adds to them. Even though Kaizen admitted to displaying cuneiform upside-down accidentally, this mistake reflects a series of conscious choices to disengage from and reinterpret the ancient Near East.

Gotta Dig 'Em All: Archaeology in Pokémon
Eduardo García-Molina
University of Chicago, Chicago, IL, USA

This year the Pokémon series celebrated its 25th anniversary after making over 120 games, a testament to the lasting impact the series has had across multiple generations of players. One of the most prominent themes that is featured throughout various games is the relationship that the world of Pokémon has with archaeology. This presentation explores the depiction of archaeology in the Pokémon series and the interplay present between gameplay mechanics, the underlying lore of the games, and popular notions of what constitutes archaeology. Particular emphasis is placed on the portrayal of academic institutions and professional archeology. In the games, archeologists conduct fieldwork alongside research in labs and museum curation to find, catalogue, display, and preserve artifacts which reveal more about the lore of the world. The player interacts with these professionals but also participates in the private selling or displacement of relics and fossils to earn money or attain new monsters. Pokémon thus surprisingly presents a nuanced picture of archaeology that differentiates, to some degree, between professional and amateur archaeologists with the player actively interacting with both. This presentation ends by examining the ways that future games could be crafted to help shed light on the real ethical problems in the movement, selling, and curating of ancient objects and how such discussions could be incorporated into classroom discussions.

SESSION: 11D. Slaves, Prisoners, and Unfree Bodies in the Ancient Mediterranean World

Enslavement to God: Moving Beyond Metaphor in the Mediterranean
Chance Bonar
Harvard University, Cambridge, MA, USA

In the study of enslavement in the ancient Mediterranean, scholars have tended to treat enslavement to deities as merely metaphorical, titular, or not "real." In this paper, I build upon recent work in religious studies on the historiography of religion and the language of enslavement in order to argue that enslavement to deities was not an uncommon or fictive phenomenon, but was a relationship between a human and deity believed to have tangible social, economic, and political consequences. With evidence ranging from (although not limited to) the biblical book of Leviticus, paramone inscriptions at Delphi, Egyptian self-sale documents, the apostle Paul, the early Christian Shepherd of Hermas, and the depiction of the Isaic cult in Apuleius's Metamorphoses, I suggest that language of enslavement to deities might be better understood when ancient sources are read with the assumptions of their writers in mind––namely, that deities were conceived of as historical actors to whom people could be enslaved and to whom one might have commensurate obligations as to a human enslaver. While by no means exactly the same as human-human enslavement, the language of human-divine enslavement impacted whether or not some people could be (re)enslaved, defined

their relationship to a deity and a community, and delimited how a life could be lived.

Between Coercion and Consent: How Words Enslaved the Pyramid Builders
Victoria Almansa-Villatoro
Brown University, Providence, RI, USA

It is commonly acknowledged in Egyptology that the Egyptian pyramids were not built by slaves but coerced laborers. However, these workers' freedom was impaired by a centrally imposed ideology that fostered community service. This paper explores how the Old Kingdom pharaoh willingly employs language to obfuscate the boundary between state coercion and subjects' consent by means of ambiguous expressions of commands and euphemisms of control. The 5th and 6th Dynasties royal letters sent to officials and inscribed on the latter's tomb walls will be studied using the methodology of Critical Discourse Analysis (CDA) that investigates how ideology is transmitted by institutional language masked as commonsense. The Egyptian commonsense was capable of associating a meaning of authority to words that in actuality code the king's volition. Other rhetorical ways of imposing royal power through the ambiguity of speech include the use of the verb wD "command" as the kingly equivalent of the private Dd "speak," or euphemisms that promote an expansionistic ideology. Private loyalty is highlighted through ambiguous expressions like the word stp-zA which appears in texts with the meaning of "bodyguard," a group of trusted elite individuals, or a place in the palace where courtiers report to the pharaoh. Hence, it is argued that language was used by the Old Kingdom state to transmit an ideology of royal coercion disguised as private consent and service. The concept of slavery and individual freedom in Ancient Egypt needs to be deconstructed and the enduring power of words to silently "enslave" people similarly acknowledged.

Pledges and Precariats: Partial Personhood and Old Babylonian Slavery
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This talk focuses on the role of slaves used as pledges (nipûtu) in commercial transactions. The greater attention by owners to the socio-economic value of slaves' mobility, agency, and trusted status (taklu)—rather than their production of value through labor—invites a consideration of the primary role of slaves as credit instruments and the institution of slavery as fundamentally commercial in nature. This can be substantiated in a number of ways, but most usefully illustrated through episodes where slaves were "sold," re-"sold," and "sold" yet again across multiple contracts: not sales as we imagine them (i.e., chained slaves sold at market on a block), but the sequential satisfaction of outstanding contracts between members of the slave-owning class. Paradoxically, the contexts of distraint (i.e., the deposit of a slave in service to a creditor's household) demanded the active construction and control of the partial personhood of slaves, relative to other social beings, simultaneous to (but reshaping) their legal status as chattel. These principles of imperfect personhood pervaded Old Babylonian legal and social orders, in their symbolic extension to animals, children, women, and other unfree persons, all of whose status were conditional, commercially mutable, and enforced by violence. As such, slavery only makes clear hierarchies of exploitation and oppression characterizing OB society generally. A scholarly focus

on the foreignness of slaves has obscured a more important analytic result that slavery was fundamentally based on precariats formed by very local inequalities of class and gender rather than by unequal center-periphery relations.

Incarceration, Enslavement, and the Slippery Archaeology of Unfreedom
Mark Letteney
University of Southern California, Los Angeles, California, USA

Unfree bodies were a staple of the ancient social and material landscape, and yet we know little about the spaces that they inhabited. This is especially the case regarding prisons. Mommsen's impact cannot be overstated: the notion that Romans did not engage in penal incarceration has been repeated *ad nauseum* in the century since the publication of *Römisches Strafrecht*, and has led archaeologists and historians alike to neglect the search for ancient prisons. Yet, Vitruvius tells us that every Roman forum had three things: a *curia*, a treasury, and a public prison. This fact alone should focus archaeologists' minds to look for carceral spaces. And yet to date, only one Roman prison has been securely identified: the most famous prison in the ancient world, the *Carcer-Tullianum* in Rome.

Put simply: we are not finding ancient prisons because we aren't looking for them. My talk will begin by offering an overview of what literary, legal, papyrological, and inscriptional sources suggest we should expect to see when looking at a Roman prison. Then, I will use a database of 35 suspected Roman prisons that I compiled along with Matthew D. C. Larsen to offer a general typology of ancient carceral spaces. I will conclude by discussing three examples (Pompeii, Simitthus, and Mainz), and the way that each troubles our notions of unfreedom, and the archaeological distinction between enslavement and incarceration.

Defixiones: Hidden Transcripts of Master-Slave Relations
Scott G. Chase
Boston University, Boston, MA, USA

E. R. Dodds referred to the third and fourth centuries C.E. in the Roman empire as an 'age of anxiety.' The Roman slave system, in particular, produced anxieties for all of its participants. Slaves feared being beaten, sexually exploited, or sold. Masters feared escape, revolt, and retributive violence. Acting upon these anxieties, magic became a strategy that both master and slave deployed against one another. In this paper I hope to shed further light on ancient slavery through an examination of three previously published defixiones (curse tablets) that lay bare common anxieties associated with enslavement: alienation, escape, and disobedience. My investigation is important to the study of ancient slavery for several reasons. First, enslaved persons left few material remains and literary sources favor elite voices. Frequently, scholars retroject evidence from slave systems in other times and places to shed light on strategies for navigating imbalanced social relations. Defixiones, as both artifacts in themselves and textual documentation representing local attitudes and beliefs, present some of the best material evidence from the lives of individual slaves and masters. Second, magical texts operate outside normal modes of discourse, and as such can be productive in adding nuance to understandings of ancient slavery gleaned primarily from elite literary sources. Here, I employ James Scott's theory of hidden transcripts as a potential model for incorporating the evidence of defixiones. In contrast to the public social scripts of domination and submission,

both masters and slaves expressed their otherwise unspoken anxieties through a shared ritual vocabulary.

SESSION: 11E. Archaeology of the Near East: The Classical Periods

Hellenistic Antiochia Hippos in the Decapolis Context
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This presentation introduces the latest finds that pertain to the Hellenistic period made by the Hippos Excavations Project at the polis of Antiochia Hippos, located on Mt. Sussita next to the eastern shore of the Sea of Galilee. The finds attest to the urban character of the site in the Hellenistic period, which until now was only known through literary sources. Moreover, they allow for the first partial reconstruction of the Hellenistic Hippos layout. The excavation results are briefly considered in the context of other Decapolis cities.

Excavations conducted at Hippos, in the last few years, in various areas, produced a significant amount of new information on the Hellenistic period narrative of the site—including probable traces of the Hellenistic agora, evidence of a pre-Roman unpaved thoroughfare, remains of a previously unknown Late Hellenistic–Early Roman neighborhood, and remnants of the Hellenistic-period pressure pipe water supply system. Moreover, additional dating material was recovered in the Hellenistic temenos, and traces of Hellenistic-period activity were found under the Roman basilica—among them silos, water cisterns, and architectural fragments.

The comparative material from the Decapolis has grown in the recent years, now including not only Hellenistic living quarters of Pella and fortifications of Gadara, but also a preliminary summary from Nysa and review of Gerasa's Hellenistic architecture and pottery. This recent work narrows the disparity between the evidence of the literary sources and the physical remains of the regional Hellenistic poleis.

On the Use of Carrier Pigeons in Ancient Near East
Laura B. Mazow
East Carolina University, Greenville, NC, USA

The large-scale construction of dovecotes (*columbaria*) reflects significant emphasis on pigeon breeding. Pigeon breeding has been demonstrated as an economic resource for food and fertilizer. In this paper, I suggest that pigeons were also intentionally bred to transport messages—an ability that historically has been adopted for military use in long-distance communication.

Characteristics that make pigeons exceptional for communication include that they can fly at altitudes up to 6000 feet, at average speeds of up to 77.6 mph, between 600–700 miles a day, over many consecutive days, and have few natural enemies. Carrier pigeons operate by being transported to far distance and then flying home.

Early allusions indicate that the releasing or arrival of a pigeon itself symbolized the message (e.g., Mesopotamian and biblical flood stories, Egyptian oracles, Akkadian royal messengers, and stranded Phoenician sailors). Additionally, more concrete references to pigeons relaying written messages can also be found—possibly in refence to the Persian Kings Cyrus and Darius, and more definitively in Frontinus's and Pliny's descriptions of the siege of Mutina (43 B.C.E.), when pigeons carried messages out from the besieged city.

While not excluding food and fertilizer production as an important motivation for pigeon breeding, the large-scale construction of dovecotes—which appears to have occurred during the southern

Levant's entanglement in the Persian and Hellenistic Wars—suggests pigeon breeding was primarily practiced to promote faster, more wide-spread communication. This practice continued with Roman investment in military infrastructure). However, a southern shift in dovecote location in the Byzantine period may reflect a change towards more agricultural uses.

Survey of the Petra Garden and Pool Complex: A Virtual 3D Update

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The Petra Garden and Pool Complex (PGPC) is a landscaped terrace set among the imposing stone monuments of Petra's City Center. It is the only excavated example of a Nabataean garden, and its design and features are most often compared to those of the contemporary gardens of the neighboring Hasmoneans and Herodian palaces and Roman villas. However, as with so many of the architectural compositions in Petra that exhibit an eclectic mix of regional influences, the PGPC exhibits a familiar yet unique example of Nabataean ingenuity.

3D models of the PGPC produced in the early years proved to be a valuable tool for visualizing a *paradeisos,* where a marketplace had long been assumed, and to inspire excavation strategies. However, an update is needed to include the discoveries of recent field seasons and explore new avenues. Since 2020, a new virtual reconstruction of the site was initiated using Vectorworks. This software enables the development of a 3D-model, or BIM, that is also a database—integrating excavation data and links into the metadata for each graphical element. These elements can, in turn, be rendered in high-resolution, incorporating the details and textures illustrated from the excavated fragments including missing organic components, such as specific fabrics and vegetation. An additional objective is that hydraulic infrastructure for the site will be emplaced, and its flow rates analyzed.

This paper will provide a review of the archaeological evidence for the architectural and hydraulic design of the PGPC and its interpretation through 3D modeling with Vectorworks.

A Paleopathological Investigation of Amputation in Ancient Nubia

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Evidence of surgical techniques implemented as therapeutic medical treatments has been suggested in ancient Egyptian medical texts and iconography but remains a rare find in the archaeological record. The subject of the present study, estimated to be a middle-aged adult male, excavated from a Meroitic period (270 BCE-370 CE) burial mound at the Nuri necropolis in what is today North Sudan, displays osteological evidence of a perimortem amputation of the left tibia and fibula. The lack of complete bone healing suggests that the amputation was likely performed not long before this individual's death, pointing towards a therapeutic attempt to save the proximal leg, already severely compromised by an infectious process (as evident from the extensive osteomyelitic bone formation near the amputation site). At present, a definitive source of infection, whether disease or injury, remains unknown. All the same, this study aims to present an in-depth analysis of ancient surgical intervention through radiographic techniques, offering a unique opportunity to consider ancient medical practice in the context of this individual's unique and special burial treatment. The royal cemetery at Nuri, originally the final resting place for the kings and queens of Kush, demonstrates evidence for continued use by a variety of cultural traditions for the thousands of years that followed. As the subject of the present investigation is situated among these subsequent burials, this study aims to contribute to our developing understanding of the culturally rich and dynamic history of ancient Nubia by investigating individual experience in the ancient past.

Subjectivity and Style: Dehellenizing the Mourning Women Sarcophagus from Sidon

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The Mourning Women Sarcophagus (ca. 360–350 B.C.E.) is one of four architectonic sarcophagi with Greek-style reliefs from the Phoenician city of Sidon. This sarcophagus is considered the "most Greek" of the Sidonian relief sarcophagi because it is carved of Pentelic marble, mimics the form of an Ionic temple, and features figures carved according to the conventions of Athenian sculpture. Due to the virtuosic execution of these elements, the sarcophagus was incorporated into the canon of Greek art and has subsequently been cited as evidence of the "hellenization" of the Levant. This argument positions the sarcophagus's style as the inevitable outcome of Greek-Phoenician exchange and privileges discussion of the presumed Greek identity of the sculptors while obfuscating the certain Phoenician identity of the patron, believed to be the Sidonian king Abd'aštart I (r. 375/4–361/58 B.C.E.).

In this paper, I reframe the use of Greek style on the Mourning Women Sarcophagus as a self-conscious choice made by its patron and argue that the use of Greek style allowed Abd'aštart I to lay claim to multiple social and cultural identities in addition to or in lieu of regional or ethnic ones. The style of the Mourning Women Sarcophagus was mediated by several factors, none of which can be ascribed to adherence to Greek cultural norms: these include a lack of local or Achaemenid iconographic models, the continuation of dynastic burial tradition, participation in the world of satrapal elites, and a response to increasing political unrest.

SESSION: 12A. Archaeology of Anatolia II

Finding Mannu-ki-liballi: Class Structure at Late Assyrian Tušhan
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Last year at ASOR, we presented differences in foodways between
various excavated structures at the Late Assyrian provincial center of
Tušhan (modern Ziyaret Tepe), especially between the palace and
other residences within the city. We found some significant
differences between the wealthier multi-room house in Operation G/R
compared to the smaller dwellings in U and K, leading us to consider
how to describe social classes at the site. A dichotomy of elite vs.
commoner or "non-elite" seems insufficient, but how many classes
were there? What kinds of social divisions should be expected at a
Neo-Assyrian provincial capital? We now address these issues with
several lines of evidence. Various texts found at the site list residents'
occupations and personal names, hinting at individuals and their
positions relative to the city's administration. Occupations may include
both *ummânu* and *kitkittû* craftsmen, suggesting the presence of at
least these two classes of craftspeople residing at Tušhan.
Architecture varies between the various operations in the lower town,
suggesting some differences in wealth. Artifacts and diet also hint at
differential access to expensive goods and exotic animals. Lastly, we
consider the graves found at most of the houses and evaluate their
contents. We expect to find at least four different economic classes
once these data sets are all compared. We may even be able to
determine the status of the treasurer Mannu-ki-liballi, who wrote his
fateful tablet despairing of the lack of craftsmen able to produce
chariots as the empire collapsed around him in 611 B.C.

**What's in a Face? An Anthropomorphic Pictorial Sherd from Tell
Tayinat, Turkey**
Brian Janeway
University of Toronto, Toronto, ON, Canada

This analysis examines a pictorial krater sherd from Early Iron Age
Tell Tayinat. The fragmentary scene features an individual performing
an unknown action. The most salient aspect of the figure is the
peculiar headdress or crested helmet he wears, consisting of
projecting spikes or spines. The visage is compared to similar
anthropomorphic depictions found on a variety of artifacts across the
region, most of which are associated with the "Sea Peoples" engaged
in combat—usually of a maritime nature. It is suggested that the scene
comprises a "self-portrait" and represents the identity of the Iron Age I
inhabitants of the capital of the Kingdom of Palestin.

**The Vines and Grains of *Tarhuntas*: The Development of the
Agricultural Landscape of Southern Cappadocia (Turkey) during
the 1st Millennium B.C.E.**
Lorenzo Castellano
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York City, NY, USA

The main aim of this communication is to provide a reconstruction
of the development of the agricultural landscape of southern
Cappadocia during the 1st millennium B.C.E., based on
archaeobotanical data and supplemented by archaeological and
textual sources. Particular focus will be given to the extensive
archaeobotanical research (wood charcoal and seed/fruit remains)
conducted at the multi-period site of Niğde-Kınık Höyük.

The evidence from Niğde-Kınık Höyük points to a progressive
intensification of agricultural activities, starting in the Early Iron Age
and peaking in the second half of the 1st millennium B.C.E.
Arboriculture and viticulture emerge as hallmark of this rich
agricultural system, indicating a long-lasting specialization of southern
Cappadocia in such activities. The local cultural and economic
centrality of viticulture is further corroborated by textual and
iconographic evidence, from the Iron Age cult of the Storm God of the
Vineyards to later documentary sources.

This evidence will be considered within the broader Anatolian
context, discussing both local dynamics and supra-regional
trajectories. Emphasis will be placed on the high level of regional
diversification and specialization of the Anatolian agro-pastoral
economies.

The 2021 Season of the Kerkenes Project
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Yazicioglu-Santamaria[4], Dominique Langis-Barsetti[5], Tuna Kalaycı[6],
Sarah R. Graff[7], Lucas Proctor[8], Nilüfer Baturayoğlu Yöney[9], Amanda
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The Kerkenes project (kerkenesproject.org) is a robust international
collaboration seeking to understanding the very large Late Iron Age
city located near Sorgun in the province of Yozgat in central Turkey.
For the past 29 years, we have undertaken excavations alongside
extensive geophysical and geospatial surveys. This report will detail the
results of the 2021 campaign, with planned excavation and
conservation, and the ongoing project work during 2020-2021.
Ongoing project work includes material science applications to
previously excavated materials, computational approaches for
modeling and simulation, and augmented reality.

The Late Chalcolithic and Early Bronze Age Ceramics of the Ilgın Region of Anatolia

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2021 was the last field season of the Yalburt Yaylası Archaeological Landscape Research Project, which has aimed to provide a diachronic examination of the richness of habitation and history in the Ilgın region of Central Anatolia. This goal has been somewhat elusive when it comes to prehistory, as little is known about even the whole of Konya between the Middle Chalcolithic and the Middle Bronze Age. Initial results from the Neolithic and Early to Middle Chalcolithic ceramic studies were presented earlier this year, given the relative ease of comparison with the already well-known site of Çatalhöyük. These results showed that the settlement history of the Ilgın region was tied to the mineral components of the earliest ceramics, particularly in the large volcanic inclusions of so-called gritty wares. After this year's field season, similar results can be observed in the material from the Late Chalcolithic to Early Bronze Age—though the use of clays with large volcanic inclusions notably decreases. This paper will present preliminary results and offer comparison with excavated material from elsewhere in central Anatolia, particularly the nearby sites of Canhasan and Sızma Höyük, illustrating the long and continuous occupation of the Ilgın region as well as its tendency to follow the general ceramic trends of Central Anatolia.

SESSION: 12B. Persia and Arabia in Late Antiquity: Bridging the Ancient and Islamic II

Sasanian or Early Islamic? New Approaches to the Study of Silver Objects from Pre- and Post-Conquest Iran

Arvin Maghsoudlou
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The Sasanian Empire (3rd- 7th centuries C.E.) has traditionally been considered as a centralized political system that unified the greater Iranian world under a single Persian rule. Over the past century, this notion has been applied to our understandings of Sasanian art, and the remains of this period have been primarily discussed within the framework of royal patronage and a uniform cultural and religious identity. In addition, this view has often led to the assumption that the collapse of the empire in the seventh century resulted in a major shift in all aspects of life, which ultimately divided the remains of the period into two separate corpora of ancient and Islamic.

However, this approach fails to account for the exceptional diversity of the late antique Near East as well as the explicit continuity in artistic productions of early Islamic period. This is best demonstrated in the surviving portable objects of the period, including a large but inadequately understood corpus of luxury silver vessels, variably known in the scholarship as non-royal, local or, sometimes, post-Sasanian. In this paper, I specifically emphasize the significance of these objects in discrediting the division imposed by historical traditions on the studies of material and visual remains of the Iranian world during late antiquity. I ultimately suggest that the prevailing conceptions of Sasanian and early Islamic art need significant revisions and that the art of this period should be treated as a continuous and coherent tradition.

The Umayyad and Abbasid Adib: Cultures of Adab at the Early Islamic Courtly Table, 8th-9th centuries

Michelle Al-Ferzly
University of Michigan, Ann Arbor, Michigan, USA

This paper investigates the rise of Islamic courtly values of *adab* (civility, refinement) and *zarf* (elegance) as they emerged in the Umayyad (661-750 C.E.) and early Abbasid (750- 850 C.E.) courts. As scholars have noted, values such as *adab* were based upon the pre-Islamic principles of *muruwwah*, or manly virtue. As a result, *adab* was understood in this early period as a code of morality, and often used as a stand-in term for concepts such as education, training, or polite society.

While the meaning of *adab* begins to change in the ninth century to acquire one of its most well-known definitions, namely literature and literary creativity, this presentation investigates the ways in which pre-Islamic rules of conduct influenced the early definitions of *adab*. Through the examination of primary texts as well as Umayyad bronze vessels, and Abbasid lustre ceramics, I argue that the material culture of early Islamic courtly dining exemplified the principles of social inclusion and exclusion as shaped by a behavioral and material adherence to the codes of *adab*-inflected etiquette. As this paper will show, this historical context, based on the pre-Islamic concepts of behavior standards, form the basis for the central role of dining and dining-ware in the formulations of elite identity in the medieval Islamic world.

The Abnā' al-Furs: Reinvestigating the Origins of a Mixed Social Class

Imar Y. Koutchoukali
University of Tartu, Tartu, Estonia. Tallinn University, Tallinn, Estonia

Medieval Muslim accounts tell us that after Ethiopian hegemony in South Arabia collapsed, the Sassanian ruler Khosrau I sent soldiers to assist the semi-legendary ruler Sayf b. Ḏī Yazan in regaining control of the area. According to these narratives, these local Persians intermarried with South Arabian women. Their descendants were collectively known as the *abnā' al-furs/al-fārs* ("sons of Persia; sons of the Persians"). According to the Islamic tradition, some of them went on to become characters of some importance during early Islam.

Recent research has cast serious doubt on the notion of a shared pre-Islamic Arab identity – rather, Arab ethnogenesis appears to be the result of early Abbasid scholarship. This also forces us to reconsider the origins of the Yemeni *abnā'* as a social group. Who were considered part of the Yemeni *abnā'* and who were not? Is there any evidence of disagreement amongst the genealogists on this? And what does this tell us about the way early Muslims envisioned the relationship of pre-Islamic South Arabia and Persia?

I will discuss the earliest Muslim accounts which mention the Yemeni *abnā'* and investigate the role they played for later genealogists. Particular attention will be devoted to the similarities and differences between the *abnā'* of Yemen and those of Khorasan and Iraq, known for their role during the ʿAbbasid revolution and later civil war between al-ʾAmīn and al-Maʾmūn.

Material Evidence for the Transformation of the Zoroastrian Priesthood in Late Antiquity

Kayla Dang
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In the centuries after the Arab conquest of Iran and the gradual conversion of the population to Islam, Zoroastrianism went from being the "state religion" of the Sasanians to the fragmentary tradition recorded by a few Zoroastrian priests under the patronage of Islamic rulers. These priests of the ninth and tenth centuries claimed descent from their Sasanian predecessors, but it is difficult to trace this continuity in surviving literary texts alone. The traditional view of the Zoroastrian past, based upon these writings, obscures the transformation of the priesthood after the fall of the Sasanian state. In order to fill this gap, this paper examines extant material culture for the role and function of Zoroastrian priests in the Sasanian and post-Sasanian periods. Thousands of seals and sealings from the late Sasanian period demonstrate the existence of a robust clerical administration in which Zoroastrian *magi* across the empire sealed and verified goods and documents. A few documents from the region of Tabaristan, under independent rule in the post-Sasanian period, actually preserve attached priestly seals—here the continuation of the priestly administration is an exception which proves the rule. These and other sources demonstrate a dramatic shift in the role, function, and geographic spread of the Zoroastrian priesthood after the Sasanian period which raises questions about the continuity of the Zoroastrian tradition in the Islamic period.

SESSION: 12C. New Directions in Ancient Literacy

When Hatti met Šalimma: Anatolian Cuneiform Literacy and the Hittite State

Gojko Barjamovic
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In his book on *Hittite Literacy,* Theo van den Hout states that the population of Anatolia in the early Middle Bronze Age "did not seem overly interested" in adopting cuneiform writing from the literate community of Assyrian traders residing in their midst. Literacy before Labarna is said to be incipient and fundamentally different from what came later. Assyrian traders are said to have left Anatolia at some point, allowing local society to revert to a period of illiteracy (van den Hout 2021: 72). Important nuances are lost in this narrative. Native enthusiasm for writing is hard to measure, but records from Kanesh and elsewhere provide insights into an early process of adoption and adaption of writing. Scholars have previously approached the question through studies of orthography and morphology. This paper adds observations on the physical idiosyncrasies of tablet writing and choices of translation of key legal and administrative terms. A combined diachronic examination of the Assyrian commercial network and the incidence of native writing is then used to complicate the notion of a decisive chronological break between two discrete Bronze Age cuneiform traditions and horizons of literacy in Anatolia. If the traders from Assur did not actually abandon the region, then we are left with important questions about the causes of change in native literacy, the adoption of a new writing system, and the decision to move from writing in translation to writing in Hittite.

A History of Hittite Literacy and other Late Bronze Age Literacies

Yoram Cohen
Tel Aviv University, Israel

The book *A History of Hittite Literacy,* by Theo van den Hout, provides us with the ground for discussing the spread and dissemination of literacy in cultures that neighbored or were under the direct control of the Hittite kingdom. My presentation will discuss literacy in Ugarit, Emar and select sites in Canaan. I will argue that the model which van den Hout's book uses to explain Hittite literacy (adoption of cuneiform; genres; scribal schools; administration, etc.) can be also be used in order to achieve a better comprehension of literacy among the Late Bronze Age urban centers in Syria and Canaan.

The Life and "Death" of Two Script Traditions: Cuneiform and Alphabetic Writing in Canaan

Alice Mandell
Johns Hopkins University, Baltimore, MD, USA

In his 2021 book, *A History of Hittite Literacy. Writing and Reading in Late Bronze-Age Anatolia (1650–1200 BC),* Theo van den Hout considers the different roles that the cuneiform and hieroglyphic scripts played in Hittite society. This work considers the genesis of these script traditions, their different social functions, and the eventual "demise" of cuneiform writing at the end of the Late Bronze Age. Many of the questions that van den Hout raises regarding the different roles of these two scripts and their differing sociolinguistic contexts are also at the heart of ongoing debates about literacy practices in the 2nd millennium B.C.E. southern Levant. During this period, there is evidence for two main script traditions: a cuneiform script—based on the principles of logo-syllabic writing—and an alphabetic one—with a linear and cuneiform variant. This paper reexamines the adoption and "death" of the cuneiform script and the "birth" and transformation of the alphabetic script in the Levant, with an eye for their complex and changing sociolinguistic contexts. The cuneiform script was tied to scribal communities of practice and was used primarily for administration and letter writing; the alphabetic script, in the southern Levant, appears to have been used more fluidly by diverse communities as an unregulated script, used for ritual and, most likely, economic functions. These different social contexts are what led to the "death" of the cuneiform script but the transformation and "rebirth" of alphabetic writing in the 1st millennium B.C.E.

A History of Hittite Literacy and Egyptian Scribal Practice

Katherine Davis
University of Michigan, Ann Arbor, MI, USA

Drawing from a focus on ancient Egyptian written culture, I am broadly interested in the role that diglossia, a multi-script environment, and language contact play in literacy across the ancient Near East. My own work centers on scholarship in 1st millennium B.C.E. Egyptian scribal communities and on how scribes produced and preserved knowledge about older language stages and scripts alongside current forms. Paradigms, sign lists, and word lists all provide evidence for such pursuits and reveal how writing itself functioned as a field of knowledge for Egyptian scribes. Particular questions that I hope to bring to van den Hout's work are why script adaption happens, what writing contexts favor hieroglyphic systems, and how scribal communities shape a written culture.

A History of Hittite Literacy: The View from Babylon and Assyria

Jay Crisostomo
University of Michigan, USA

Theo van den Hout's *A History of Hittite Literacy* provides an excellent discussion of cuneiform literacy and scribal practices in Bronze Age Anatolia. I discuss van den Hout's contribution with respect to the preceding and contemporary cuneiform cultures of Babylon and Assyria with particular attention to how the scribes and scholars in Hittite Anatolia evaluated, reimagined, and appropriated the Mesopotamian traditions in constructing their ideas of literacy.

SESSION: 12D. Environmental Archaeology of the Ancient Near East

Byzantine Plants: An Archaeobotanical Study of the Agricultural Economy of Caesarea Maritima, Israel

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Caesarea Maritima, founded in the 1st century B.C.E. by Herod the Great, was the capital of Greco-Roman Palestine largely due to its major port, which insured Caesarea's economic importance to the region. In the Byzantine period, the city continued to prosper, with a population numbering at least 30,000. This paper presents an analysis of 95 sediment samples, totaling 971.5 liters that were recovered from a variety of contexts during the Combined Caesarea Excavation Project to try to gain a better understanding of the importance of the agricultural economy of Caesarea during the Byzantine period. Once processed, these samples contained 14,976 botanical specimens representing 95 taxa. The most common species—with the highest density per kiloliter—are not surprisingly major economic crops of the region (such as wheat, barley, olive, grape, fig, stone pine, lentil, chickpea, Celtic bean, and bitter vetch), clearly supporting their importance. However, understanding whether taxa were being grown locally or imported is difficult to determine. For example, evidence of the type of agricultural economy can be seen in the ratio of almost 2:1 grain to chaff, as well as high densities of agricultural weeds. These indicators support both local production and importation of cereal crops at Caesarea, likely to support the city's population and for export to the wider region. Other sources of evidence we examine are tree and vine crops, weeds, and ancient literary sources—all of which add to our understanding of what agricultural commodities were being exported from Caesarea and the surrounding region.

Fertile Ground: Methods for Estimating Ancient Agricultural Productivity

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The arid and semi-arid conditions which characterize much of the Near East make this region particularly sensitive to environmental change. Though our understanding of ancient perceptions of climate change remains uncertain, the long history of agriculture as a mode of subsistence in this region suggests that fluctuation in agricultural yields was likely one significant way in which ancient people might have perceived climate variability. Likewise, modifications to land-use strategies and agricultural decision-making practices were major avenues through which ancient societies could respond to changes in their environment. Examining regional and temporal variability in agricultural productivity and its relationship to both environmental factors and differences in agricultural practice is, therefore, critical to understanding the impact of climate variation on past societies. Alongside other forms of evidence (e.g., settlement data), agricultural yields can also serve as proxies for a society's ability to generate surplus beyond immediate subsistence needs, with significant implications for understanding aspects of political economy. Several methods are often used to reconstruct past crop yields, including comparison with recent ethnographic or experimental agronomic data and estimates derived from ancient agricultural texts. Yields can also be modeled based on data derived from direct proxies—such as crop isotope measurements (especially $\Delta^{13}C$), a method which can now be more effectively leveraged due to the growing dataset of such measurements. This paper examines the methodological and interpretive issues associated with these different approaches, and compares the yield estimates obtained from each of them, focusing on temporal and regional patterns in agricultural productivity.

The Complexities of Collapse: Zooarchaeological Perspectives on the Dissolution of the Hittite Empire

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This paper places zooarchaeological evidence from the Late Bronze Age collapse of the Hittite Empire in Central Turkey (ca. 1200 B.C.E.) in dialogue with broader discussions of societal collapse and its aftermath. In particular, the author uses animal remains from the Hittite capital, Hattuşa, and from a nearby rural center, Çadır Höyük, to reconstruct day-to-day economic life in the Hittite heartland and to analyze local responses to the disintegration of the Hittite political superstructure. This work allows for the assessment of two common collapse narratives. The first assumes that the state is an integrated whole, characterized by massive scale systemic interdependence— such that when one aspect of the state's organizational structure (e.g., its political system) fails, its other organizational structures (e.g., its economic system) must follow. The second assumes that rural settlements tend to be considerably less affected by societal collapse than major centers. Drawing on several lines of zooarchaeological evidence, the results of this analysis show that, while changes in central Anatolian lifeways did occur following the collapse of the Hittite empire, the nature of these changes does not always follow the trajectories assumed in conventional narratives of societal collapse.

Tracing Olive Oil in Ancient Cyprus and Beyond Using Organic Residue Analysis: A Reevaluation

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Olive oil has been one of the most important products in the eastern Mediterranean economy and socio-politics since at least the Late Bronze Age. The presence of olive oil is primarily inferred from indirect evidence, such as olive pits, stone presses, ceramic storage and transport vessels, or texts. Organic residues preserved in pottery offer a direct means of reconstructing the contents and uses of pottery in the past. A preliminary organic residue analysis study of *pithos* storage vessels hypothesizing olive oil storage at a large facility at the Late Bronze Age urban site of Kalavasos-*Ayios Dhimitrios*, Cyprus, has been heavily cited (South 1992: 141-46). However,

developments in organic residue analysis have shown that olive oil is difficult to securely differentiate from other fats and oils because its primary lipid molecules occur widely in the natural world and also degrade over time. This paper reevaluates whether olive oil can be identified using organic residues in the Mediterranean. Taking Kalavasos-*Ayios Dhimitrios* as a case study and drawing from laboratory-based degradation experiments, a review of current literature, and assemblage theory, we argue that organic residue analysis in the Mediterranean needs to account for the myriad processes that shape the assemblage of molecules preserved in a pot and can complicate interpretation, including environmental effects. We propose that the way forward for studying olive oil requires integrating archaeological, textual, and biomolecular evidence with careful attention to assemblages.

South, A.1992   Kalavasos-Ayios Dhimitrios1991. *Reports of the Department of Antiquities of Cyprus, 1992*: 133-46.

Animals at the Periphery: The Zooarchaeology of Politics and Subsistence at Iron Age Zincirli Höyük

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   Zooarchaeology, in its investigation of the practices of animal-based subsistence, has a powerful ability to explore the ways that political practice was intermingled with the natural environment in the ancient Near East. During the Iron Age, the Neo-Assyrian Empire had to contend with preexisting landscapes, ecological communities, and their attendant animal-based practices as it expanded its influence across Southern Anatolia. The site of Zincirli Höyük, ancient Sam'al, provides a unique case study in these imperial dynamics as the site transformed from a royal Aramean capital to a provincial center of the growing Neo-Assyrian Empire during the course of the Iron II and Iron III periods (c. 850-600 BCE). By looking at a comparison of Iron Age zooarchaeological material from the site's Southern Citadel (Area 3) and Northern Lower Town (Areas 5 & 6), we can investigate how practices of animal hunting, husbandry, and product distribution shifted alongside increasing Assyrian influence and in conversation with the Empire's extensive environmental projects. This paper will present analyses of the rich Iron Age II/III faunal assemblages from these three areas, attesting to both stability and change in the strategies of animal-based subsistence under the complex influence of Assyrian imperialism. The discussion of these findings will then emphasize how animal husbandry and utilization were politically potent forces in the complex and evolving relationship between peripheral Sam'al and the Neo-Assyrian Empire.

SESSION: 12E. Archaeology of the Byzantine Near East

Excavations at Tell es-Samak on the Shores of Haifa and its Identification as the Byzantine Porphyreon (Southern)

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   Tell es-Samak is situated on the Mediterranean shore in modern Haifa, Israel. In the Roman period the settlement expanded beyond the tell, reaching its peak during the Byzantine period. J. Elgavish, who conducted large-scale excavations in 1963–1979, sealed the identification of the site as Shikmona. This was widely accepted, but some scholars, most notably L. Di Segni (based on written sources),

suggested it was in fact the site of Porphyreon. Elgavish's excavations of the Hellenistic–Byzantine periods were only partially published, largely in popular science print. He identified the site as the Jewish Shikmona, despite the lack of any Jewish remains and abundance of Christian antiquities.

   Renewed excavations, directed by the author on behalf of the Institute of Archaeology, University of Haifa, in 2010–2013, unearthed additional information of the Byzantine period— mainly concerning the Southern Church and its inscriptions. The church was built in the end of the 4th–early 5th centuries C.E. During the first half of the 5th century, it was renovated, and later, around the mid-5th century, it was destroyed. This presentation, for the first time, focuses on the excavation results of the church and other Byzantine period finds— together with historiographical analyses, proof of the historical maps, the data derived from all the excavations, and the remains of the rich purple industry. All this allows us to identify the settlement as Porphyreon (the southern Porphyreon), and to suggest a new ethnic and chronological narrative for the site of Tell es-Samak.

Umm al-Jimal Chancel Screens in Early Byzantine Context

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   Umm al-Jimal, an ancient rural town in the north of Jordan, is remarkable for its high concentration of Byzantine period churches. Much like other towns in the same region, Umm al-Jimal was affected by architectural, cultural, and religious influences spread throughout the Late Antique Byzantine Empire. This paper will examine the relationship between Umm al-Jimal and the wider empire throughout the Late Antique period, particularly focusing on the social and liturgical development of the chancel barrier in churches. Comparisons will be made between the churches of Umm al-Jimal, across the Southern Levant, and at the imperial capital of Constantinople in order to evaluate Umm al-Jimal's churches within a bi-directional knowledge creation framework.

Cross, Menorah, or Caliph? Local Demands for Mold-Blown Glass Vessels in Late Antique Palestine

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   Hexagonal mold-blown glass vessels dating from the 5th-7th centuries A.D. feature menorahs, crosses, vegetal decorations, and (possibly) standing caliphs (Barag 1970; Raby 1999). Some examples with divergent religious symbols likely come from a single workshop. The objects are often assumed to have been produced in Jerusalem and to have been collected as souvenirs by pilgrims visiting the city. This paper challenges both of these assumptions. The existence of a mold for making such objects in Samaria and the concentration of glass production centers in the northern and coastal regions of present-day Israel make Jerusalem an unlikely center for the production of such objects in late antiquity. The excavation contexts of such vessels, as well as their patterns of distribution, suggest that they were produced in present-day northern Israel and were not acquired by pilgrims visiting Jerusalem as part of the expansion of pilgrimage to the city during late antiquity. While *loca sancta* objects produced in Asia Minor, Syria, and Egypt have regional and trans-regional patterns of distribution, hexagonal glass vessels have a much more limited area of distribution—primarily in modern-day northern Israel, Jordan, and Syria. In addition, most provenanced examples were

discovered in funerary contexts, similar to Roman unguentaria found in graves and often assumed to have held perfumes used for the dead. These circumstances indicate that the objects were produced for local populations of Jews, Christians, Muslims, and others to satisfy the demand for utilitarian and funerary glass vessels with ritually potent symbols.

SESSION: 12F. Network Approaches to Near Eastern Archaeology and History

The Multimodal Trade Networks of New Kingdom Egypt: The Circulation of Aegean and Cypriot Ceramic Imports

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   In this paper, I examine exchange in New Kingdom Egypt—to assess the role of extra-palatial agents in the distribution of imported goods along the Nile Valley, as well as the integration of Egypt into broader Late Bronze Age Mediterranean trade networks. The role of centralized institutions in the economy of the Egyptian state has traditionally been over-emphasized, in part due to the exaggerated role played by state actors in the textual record. This textual evidence presents the economy of Egypt as almost exclusively redistributive, with the state assuming a veritable royal monopoly on production, product circulation, and long-distance trade. Yet personal transaction records and depictions of marketplace exchange in tomb paintings reveal an alternative system in which import goods were mobilized through non-centralized systems incorporating extra-palatial agents. This multimodal structure of the New Kingdom economy will be demonstrated through a network analysis of Cypriot (LC I–IIC) and Aegean (LH I–IIIB) pottery throughout Egypt. The results of this analysis confirm that two quasi-independent circulation systems were in operation, with palatial centers supplied by institutional state-sponsored networks of exchange—including tribute, reciprocal gifting, and commercial trade—while remaining sites throughout Egypt were likely supplied through a more independent exchange network, dealing predominantly in the more common—and perhaps more affordable—imported wares. Diachronic variation in object circulation is also tied to fluctuations in Egyptian imperial expansion in both the Levant and Nubia, supporting the hypothesized role of the military in importing foreign goods during the Late Bronze Age.

Power and Cooperation in Decentralized Regional Economies: A Diachronic Perspective on the Development of Obsidian Supply Networks in Northern Ethiopia (ca. 800 B.C.E. – 825 C.E.)

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   This paper adopts an archaeological network analysis perspective to the study of cooperation and power in politically decentralized regional economies of obsidian production in the Central Tigrayan Highlands of northern Ethiopia. This research combines geographic information system (GIS), Remote Sensing, and Social Network Analysis (SNA) to map and model the development of economic networks. The subjects of this longitudinal network study are nominalist groups constructed using affiliation data generated through

elemental characterization of obsidian debitage using a portable X-Ray Fluorescence instrument. This research uses formal network analysis methods to test a diversity of hypotheses concerning the dynamics between physical and relational space and fluctuations between social relationships across different temporal scales. Multiple centrality and centralization measures were employed in an exploratory manner to reveal that Pre-Aksumite and Aksumite (800 B.C.E. – 825 C.E.) economic networks of obsidian production were decentralized and stable in nature, limiting opportunities for social actors to amass power and influence over time. Combining this quantitative approach with a qualitative adoption of the network paradigm, this paper also considers the mechanisms that engendered the trust necessary for the reproduction of this economic system in the absence of evidence of elite control. Thus, this paper challenges the recurring assumption that state-level political complexity necessarily engenders economic centralization.

Let Him Play the Lyre, the Drum, and the …? Using SNA to Identify Musical Ensembles in Mesopotamian Texts

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   Cuneiform texts from the 3rd through 1st millennia B.C.E. attest to a wide variety of musical instruments used in various areas of everyday and ceremonial life. The names of more than forty instruments, including string, percussion, and wind instruments, are preserved. The combinations in which these instrument names are mentioned can provide valuable insights into Mesopotamian musical culture, as recently demonstrated by Theo Krispijn. Certain instrument combinations, for example, are typical of cultic practice in a particular period. More significantly, regularly recurring instrumental ensembles identified in texts can be compared to the ensembles depicted in the iconographical and archaeological records, potentially aiding in the notoriously difficult task of matching instrument names to instruments.

   In this paper, we use social network analysis (SNA) to map relationships among musical instruments attested in Sumerian and Akkadian texts of the early- to mid-1st millennium B.C.E., focusing on lexical, literary/liturgical, and archival texts. The resulting networks reveal significant patterns in the composition of instrumental ensembles for particular musical occasions or among certain groups of musical practitioners. Furthermore, building on Krispijn's work, the use of SNA allows us to quantitatively compare ensembles referenced in the textual record to groups of instruments represented in the visual record. Comparison of the two networks—one text-based, one iconography-based—can help identify the meaning of instrument names: if an instrument name and an iconographically depicted instrument recurrently appear in sub-groups characterized by similar node configurations, they may represent the same instrument.

Sociopolitical Change and Interregional Exchange: A Case Study of Flint in the Iron Age I Southern Levant

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   The Iron Age I (12th–11th centuries B.C.E.) in the southern Levant marks a major transition from the preceding geopolitical and economic structuring of the Late Bronze Age (16th–12th centuries

B.C.E.). In particular, Egyptian hegemony over the region disappears and there is a reconfiguration of power relationships amongst native Canaanites and between Canaanites and the newly formulated Philistines and Israelites. This paper will articulate these shifts in power relationships by assessing the change in exchange networks, specifically the exchange of flint in the southern Levant. We interpret a cache of flint sickle blades/blanks—from the 11th century B.C.E. site of Khirbet er-Raʻi, Israel—in light of various theories of exchange, particularly Central Place Theory and Gateway Community models. The Khirbet er-Raʻi cache is contextualized along with other contemporary—though smaller—caches from the nearby site of Gezer, and a model for flint exchange is developed.

A Diachronic Approach to Connectivity and Route Networks in Central Anatolia
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This paper presents a novel approach to the study of human connectivity in Near Eastern archaeology, employing central Anatolia (Turkey) as a case study. Using Circuitscape, software that employs Electrical Circuit Theory to model movement and connectivity, we analyze a dataset of approximately 1,500 sites occupied between the Neolithic and the end of the Iron Age (ca. 8000–300 B.C.E.) in the Konya Plain and the broader region of Central Anatolia. Looking at settlement systems across different temporal slices (determined by archaeological periods), we identify probable corridors of high movement in idealized cross-landscape passages, as well as in between individual nodes of settlement. These pathways point to the centrality of certain sites in multiple periods and allow us to compare the thoroughfares suggested by the model with later road infrastructure.

This analysis emphasizes the fundamental role of landscape in constraining human movement, particularly outside relatively featureless plains. It further affords a diachronic understanding of continuity and change in the use and importance of different routes, highlighting the high level of resilience of pre-modern roads in the region.

Economic Aspects of Ancient Egyptian Religious Imperialism in the Levant
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In this paper, I examine the intersection of economics and religion in the Egyptian-occupied Levant during the New Kingdom, analyzing ways in which Egypt used religion to integrate its northern territories into the Egyptian economy and to maintain the imperial system. I further investigate the possible locations of Egyptian cultic centers in the Levant and compare their functions with cultic centers in Egypt itself.

I thus demonstrate that New Kingdom Egypt increasingly used religious institutions in the Levant to conduct the economic administration of its imperial territories. Furthermore, as indicated by Ramesside records, such as Papyrus Harris and ostraca found at Tel Seraʻ, the imperial administration of the Levant likely became increasingly self-sufficient over time.