

IN SITU

AY 2025/26

NEWS AND EVENTS OF THE HARVARD STANDING COMMITTEE ON ARCHAEOLOGY



Excavations at the site of
Falerii Novi, Italy

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A Message from the Chair

With this issue we showcase the breadth and depth of archaeological research at Harvard across its academic departments and museums. We present archaeological reports and updates on the Old Harvard Camp at Giza, ancient Anatolian tombs at Sardis, community-building initiatives for Andean khipu research, the rise of urbanism at the Western Zhou capital, and the archaeology of a Spanish Civil War ruin. New this year, we also highlight senior thesis research, classroom engagement with museum collections, public and professional archaeology events, student science journalism, and research highlights from around the world. In addition, we showcase Harvard's century-long efforts to support the study of Old World prehistory, both on campus and beyond, through the American School of Prehistoric Research (ASPR). As we head deeper into challenging times for universities, we hope these articles will chronicle the high quality of intellectual inquiry and academic research taking place at Harvard and around the world.

Christina Warinner

Landon T. Clay Professor of Scientific Archaeology
Chair, Standing Committee on Archaeology

Professor Margaret Andrews leads the Falerii Novi Project, a multi-institutional archaeological collaboration investigating a flourishing Roman city on the Via Amerina—an important route linking Rome to Umbria and north-central Italy. (Summer 2025 field team)



NEWS DISPATCHES AND FIELD NOTES

EDITED BY CHRISTINA WARINNER

Department of Anthropology & Department of Human Evolutionary Biology

Archaeologists from across Harvard have sent in their annual field notes and news highlights, and we selected a few to showcase the diverse archaeological activities of students and faculty both on campus and around the world.



Hellenistic pottery at Sardis

PhD students Caroline Everts and Hannah Hoffman analyzed Hellenistic pottery from Sardis with a special eye towards documenting changes between the 4th century BCE local wares, such as these two *skyphoi*, and later Pergamene-style table settings after the 188 BCE Peace of Apamea, when Sardis turned from a regional capital of the Seleukid Empire into a peripheral city under the Attalids of Pergamon.

BioLabs goes bowling

Members of the Ancient Biomolecules research group take a break from the lab to go candlepin bowling! Pictured left to right: Jingbo Li, Emily Ding, I-Ting Huang, Garrett Harvey, Lizzy Nist, Christina Warinner, Jack Bishop, Joyce Ho, Percy Ho, Priya Patel.



Trekking in Teotihuacan

Anthropology professor Bill Fash takes PhD students Yiduo He and Mackinley FitzPatrick and Harvard College student Elisabeth Ngo ('26) on a tour of Teotihuacan in Mexico during a research trip in July.



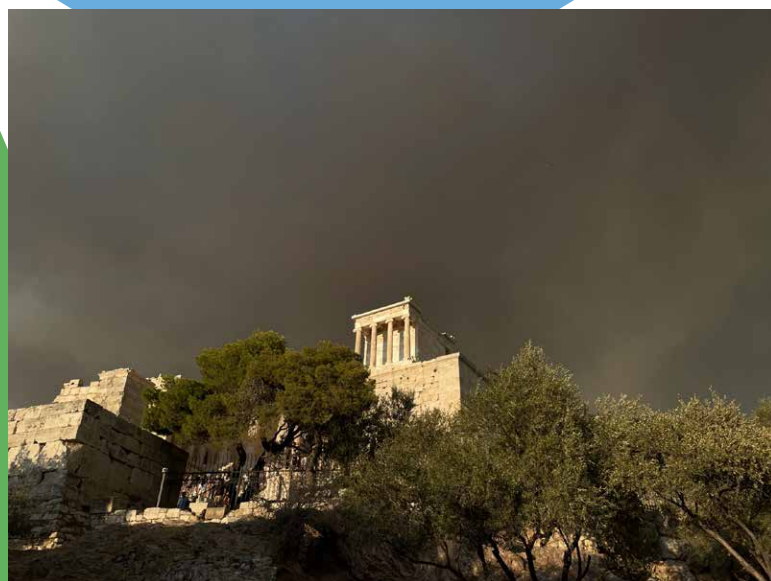
Ika Moana Ika Whenua Project

As part of the Ika Moana Ika Whenua Project, Professor Christina Warinner (Anthropology, HEB) welcomes team members from the University of Otago and Te Papa Museum to Harvard for a collaborative study with the Harvard Center for Mass Spectrometry to identify whale and seal species used to make ancient Māori bone tools and ornaments known as *taonga*. Pictured left to right: Sophie White, Kristine Korzow Richter, Monica Tromp, Amber Aranui, Christina Warinner, and Peter Meihana.



Wildfires near Athens

PhD student Ian Wilson shot this photo of the Temple of Athena Nike in Athens during the summer of 2024. The temple's white marble is illuminated by the setting sun, while a looming cloud of wildfire smoke gathers behind it. Archaeological sites around the world are threatened by human activity, making the work of archaeologists even more urgent.





Christina Warinner is elected to the National Academy of Sciences

Christina Warinner, Landon T. Clay Professor of Scientific Archaeology, was elected to the United States National Academy of Sciences (NAS) in April 2026. The NAS is a body of the nation's most distinguished scientists and was founded in 1863 by President Abraham Lincoln with the mission of providing independent, objective advice to the nation on matters related to science and technology.

MHAAM welcomes the Max Planck Society President

The Max Planck - Harvard Research Center for the Archaeoscience of the Ancient Mediterranean (MHAAM) welcomed Max Planck Society President Patrick Cramer for a visit this spring to discuss future collaborations between researchers at Harvard and the Max Planck Institute for Evolutionary Anthropology.



Anthro Day Trivia and Lego Challenge!

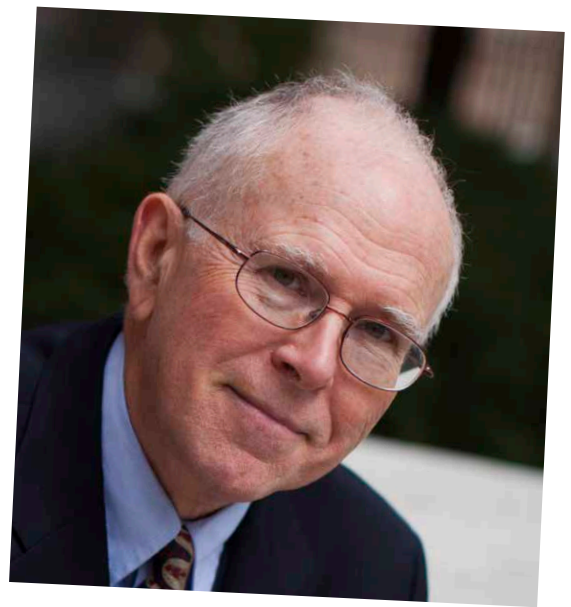
Archaeology PhD students Andrew Bair and Dylan Flicker compete in the annual Anthro Day Trivia and Lego Challenge. How would you use Legos to represent an ancient technology that changed the world? Do you know the year Harvard first admitted archaeology students for graduate degrees?

The first archaeology graduate students were admitted in 1890 under the instruction and supervision of Frederick Ward Putnam.



Michael McCormick is inducted into the French Académie des Inscriptions et Belles-Lettres

Michael McCormick, Francis Goelet Professor of Medieval History, was elected to the French Académie des Inscriptions et Belles-Lettres in 2026. The academy was founded in 1663 as a society of scholars versed in the knowledge of history and antiquity. The academy provides expert advice to government authorities on questions within its domain and is primarily concerned with the study of the monuments, documents, languages, and cultures of the civilizations of antiquity, the Middle Ages, and the classical period, as well as those of non-European civilizations.



Kaja Tally-Schumacher wins Tsao Family Fellowship at the American Academy in Rome

The Tsao Family and Harvard University Graduate School of Design Affiliated Fellowship at the American Academy in Rome builds a bridge to the best and brightest architects and designers at the GSD, promoting a critical engagement between the two institutions for years to come. Congratulations, Kaja!



Congratulations to our graduating seniors and PhD students

Anthropology

Andrew Bair, PhD
Blake Bernhardt, AB
Isabella McMillen, AB
Elisabeth Ngo, AB
Eli Visio-Johnson, AB
Skye Lam, Secondary Field

Near Eastern Languages & Civilizations

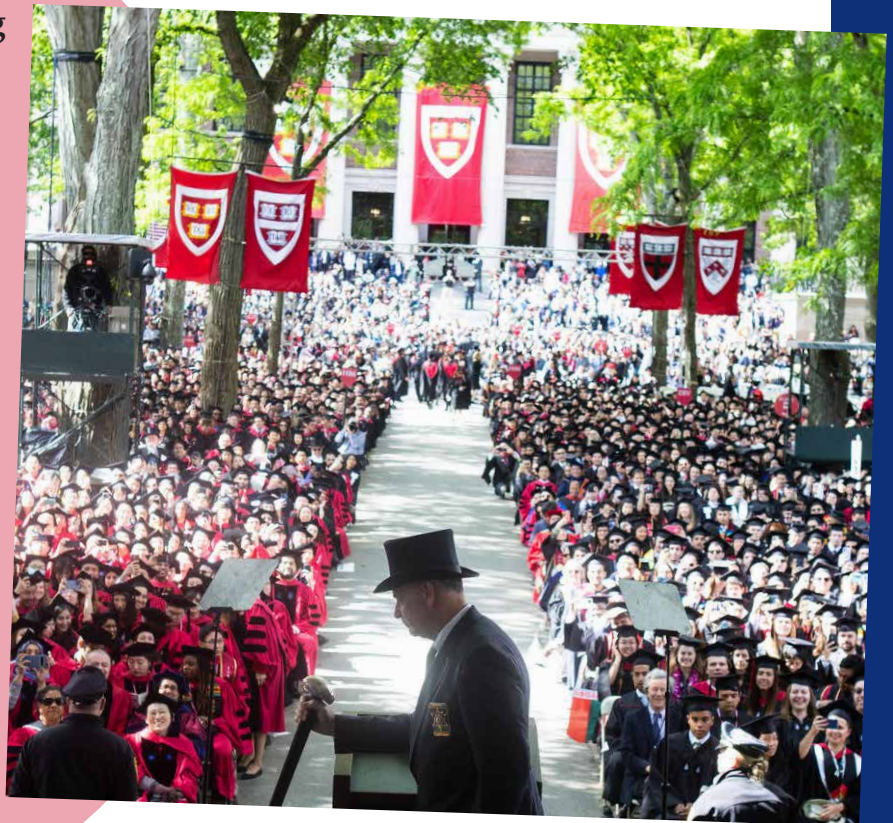
Andrew Deloucas, PhD
Julia Puglisi, PhD
Adelaide Parker, AB

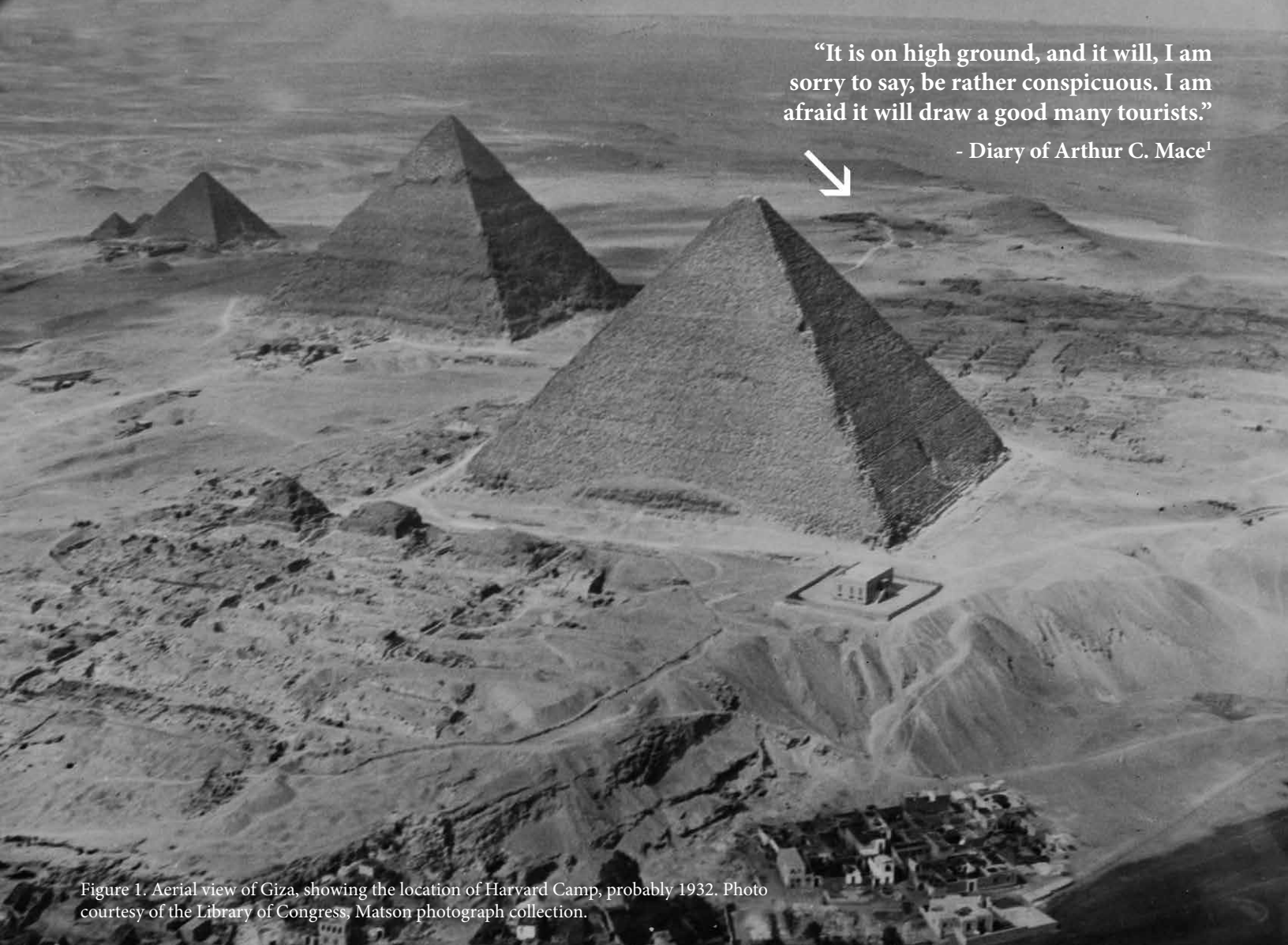
History

Elena Shadrina, PhD

Human Evolutionary Biology

Anika Christensen, AB
Emily Ding, AB





“It is on high ground, and it will, I am sorry to say, be rather conspicuous. I am afraid it will draw a good many tourists.”

- Diary of Arthur C. Mace¹

Figure 1. Aerial view of Giza, showing the location of Harvard Camp, probably 1932. Photo courtesy of the Library of Congress, Matson photograph collection.

LIFE AT “HARVARD CAMP” ON THE GIZA PLATEAU

PETER DER MANUELIAN

Department of Near Eastern Languages and Civilizations & Department of Anthropology

If you were ready to start excavating at the famous Giza Pyramids, where would you build your expedition’s headquarters? British archaeologist Arthur C. Mace, who would later help Howard Carter with the Tutankhamun tomb in 1922, wrote the words quoted above in early 1903. At the direction of his boss, Harvard-trained American Egyptologist George Reisner, Mace had just found the spot at Giza for the new dig house, a few hundred meters west of the Khafre Pyramid, on the plateau’s highest point for many kilometers in all directions. The Egyptian Service des Antiquités officials wrote: “The spot selected...is well chosen, and I see no

inconvenience likely to accrue to the Service from the presence of [Reisner’s] workmen there.”²

Since 1899, George Reisner was directing the Hearst Expedition, sponsored by American philanthropist Phoebe Apperson Hearst, on behalf of the University of California, Berkeley. After perfecting his new archaeological skills (he had started his career as an Assyriologist and philologist) at such sites as Quft, Deir el-Ballas, el-Ahaiwah, and Naga ed-Deir, suddenly in 1903 the most famous site in the country—Giza—became available for professional excavation.

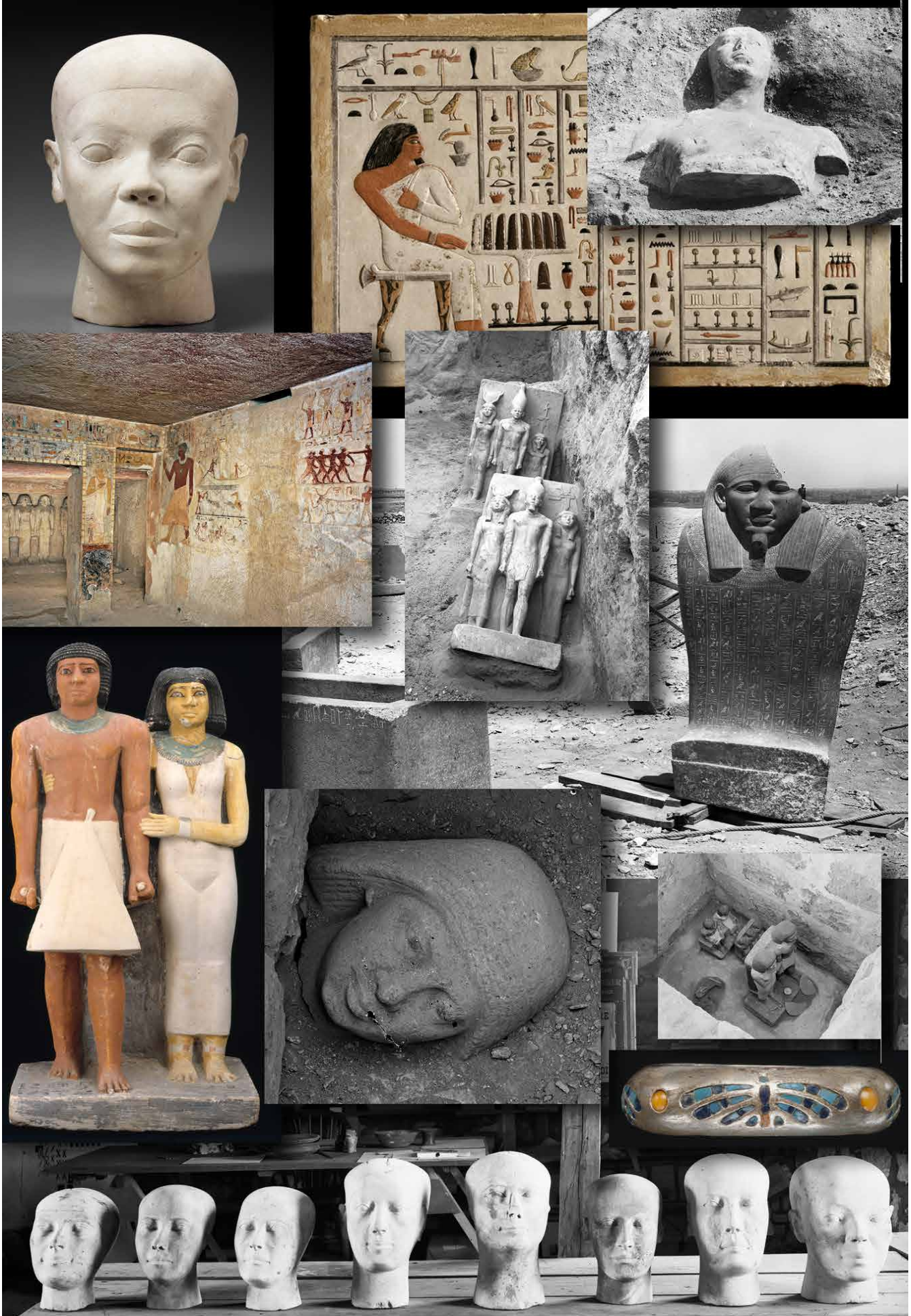


Figure 2. Selection of objects discovered by the HU-MFA expedition at Giza. Image courtesy of the MFA.

Gaston Maspero, the French director of the Service des Antiquités, instructed the three foreign missions interested in Giza to divide the site amicably amongst themselves. The archaeologists included Reisner for the Americans, Georg Steindorff for the Germans, and Ernesto Schiaparelli for the Italians. Meeting on January 27, 1903, on the veranda of the Mena House hotel beside the Great Pyramid, representatives of each party drew lots out of a hat, dividing up for excavation the three pyramids and surrounding cemeteries of elite tombs.

A few seasons later, the Italians left for other sites in Upper Egypt, and Reisner found himself licensed to excavate two-thirds of the great cemetery west of the Great Pyramid of Khufu (with the Germans digging the middle third), all of the cemetery east of Khufu, and the temples associated with the third and smallest pyramid, belonging to Menkaure. When Phoebe Hearst could no longer support the Hearst Expedition, Reisner spent the summer of 1905 in Boston, negotiating to create the Harvard University–Boston Museum of Fine Arts Expedition in its stead. This marked the start of arguably the longest and most successful archaeological project of the first half of the twentieth century, covering not just Giza but another twenty-two other sites in Egypt, Sudan, and even Palestine, between 1905 and 1947. Reisner was to become a fixture on the Giza Plateau.

But before the many seasons filled with great discoveries could begin, a permanent headquarters had to be built. Reisner noted with pride that “Hearst (later Harvard) Camp” sprung up, consisting of “a seven room stone house with wood and tarfelt roof in the same time that it took the Germans to build three rooms using nearly 100 men.”³ Arthur Mace wrote: “We have got a fine concession of ground here: any number of fine tombs that have not been touched since ancient times. I shall be glad when we have got the house finished and can get to work” (fig. 1).⁴

Tourists today walk past the Harvard Camp area, unaware of how much history, how many spectacular discoveries, important visitors, and carefully researched publications are connected with this special spot (fig. 2). Personalities, both reserved and eccentric, masterpieces of ancient Egyptian painting and sculpture, the impact

of two world wars and an economic depression, political intrigues, archaeological triumphs, and even some tragic suicides—Harvard Camp saw it all. Despite lacking electricity or running water, the Camp was home to a large and loyal Expedition staff of Egyptians and Westerners. In 1935, Reisner assistant and future MFA curator, William Stevenson Smith, spent some time at the fancier Saqqara dig house built by the University of Chicago, and wrote: “They have a most luxurious establishment and a very jolly crowd working this year... Incidentally it’s nice to be able to switch on a light and turn on a shower after our primitive surrounding which include sand closets, lamps and little tin bath pans. Still I’d rather be up here [at Giza] any day.”⁵

The rooms housed offices, a photography studio, object storage magazines, kitchen, stable, garage, workmen’s barracks, tearoom and veranda, and later, even a tennis court (fig. 3). One of George Reisner’s contemporaries described how the place:

“...never became anything but an excavation camp—rooms built of rough uncut stones round a square court where recent finds were usually lying in the open, the walls unplastered outside and inside. A passage between two rooms on the south side led into the court: left of the passage against the outer wall was a large enclosed verandah where Mrs and Miss Reisner entertained visitors. Reisner’s office was in the northwest corner of the court, a long room with a bay looking north across the desert; two rows of tall boxes knocked up of common deal were arranged on shelves along one wall to hold his working library; along another wall more boxes held an ever-lengthening series of expedition records, year by year and site by site; his own table and the tables of assistants and draftsmen filled most of the floor space. Photographic rooms and store rooms ran along the west side of the court; the dining room, bedrooms, kitchen and so forth were on the south and east sides. On a lower ledge of the plateau nearer the pyramids was another building...; on a ledge to the north of this were the quarters of the Egyptian workmen and camp servants and, in later days, a garage and stabling.”⁶ (fig. 4)

When the HU–MFA Expedition staff discovered statues, fragments of wall reliefs, inscriptions, objects of daily life, or funerary implements, they documented them



Figure 3. Aerial photograph of Harvard Camp from 274 meters (900 feet), with the various buildings identified, February 29, 1936. Egyptian Royal Army Air Force.

first in their archaeological context, and then removed them to Harvard Camp. Thanks to Reisner's meticulous record-keeping, we can follow the "afterlives" of these objects, from the day of discovery to removal to the dig house, where they were logged into a register book and ID number, photographed, conserved, studied, and ultimately sent either to the Cairo Museum or to the Museum of Fine Arts, Boston. The final destination resulted from the 50–50 division system of the day, known as *partage*, where the director Service des Antiquités determined, at the end of the dig season, which objects to keep and which to delegate to the foreign mission. (Nowadays all finds remain in Egypt.)

For George Reisner personally, Harvard Camp was his only home. He owned no property back in America, either in Indianapolis, his birthplace, or in Cambridge or Boston, where he served as Harvard professor and Egyptian Department curator at the Museum of Fine Arts, Boston (MFA). In fact, he only returned to the U.S. a few times during his career, because archaeological fieldwork in Egypt was his true passion.⁷ His wife and daughter, both named Mary, spent each and every day with him, until he sent them home in 1941, owing to the dangers of the war. Writing to his patron, Phoebe Hearst in 1904, he revealed his romantic attachment to Harvard

Camp: "Our veranda opening to the southeast with a view of the pyramids, the Nile Valley, the Mokattam hills and the Citadel is— well wait till you are here and see what it is."⁸ Complaining in 1911 of the high rents during a stay in Boston, Reisner wrote to one of his students: "You forget that we have no house and have to buy the greater part of our food at a boarding house. I don't know what the average 'perfesser' pays but I do know what I have to pay."⁹ And to a young archaeology enthusiast, son of one of Reisner's college classmates, he revealed his preference for Harvard Camp: "I dare say your father will tell you there is no magic but then he has always lived in a house. Nowadays people who live in houses never find out about magic. That is why I do not like living in a house myself. It is too lonely."¹⁰

Phoebe Hearst herself came to visit Giza in 1905: "What views we have from there. The Pyramids in all lights. During the full moon it was enchanting. We went down one night and sat where we had a fine view of the Sphinx. It was far better than by daylight."¹¹ Reisner fortunately discovered a tomb chamber with two preserved statuettes while Phoebe looked on: "If you had seen me hanging over the edge of the place looking down to see the figures as they were uncovered, you might have thought it right to class me with excavators. I was more excited than any one."¹² Ironically, the day she left Giza, the Expedition made one of its greatest discoveries, the "slab stela" (tombstone) of the high official Wepemnefret, now in the Hearst Museum, Berkeley. Would Phoebe Hearst have changed her mind and continued to fund the dig if she had stayed at Giza for just a few hours more to witness the discovery herself?

In 1912, Reisner toured American industrialist Henry Clay Frick and his family up the Nile. Frick's daughter Helen came away with a similarly inspired impression of Harvard Camp. After refreshments were served, the family enjoyed a nighttime visit to the mastaba fields and the Menkaure pyramid. Helen recorded in her diary: "It was wonderful moonlight and nothing could have been more mysterious than the scene before us. He [Reisner] took us into one of the many mastaba tombs and showed us the stele and side halls of a little offering chamber how can I describe it all?"¹³ Just a few weeks later, visitors were treated to two performances of the opera "Aida" in front of the Great Pyramid of Khufu.¹⁴



Figure 4. George Reisner, Mahmud Said Ahmed Diraz, and Frank Allen examining records at Harvard Camp, December 12, 1938 (HU-MFA B9022). Image courtesy Museum of Fine Arts, Boston.

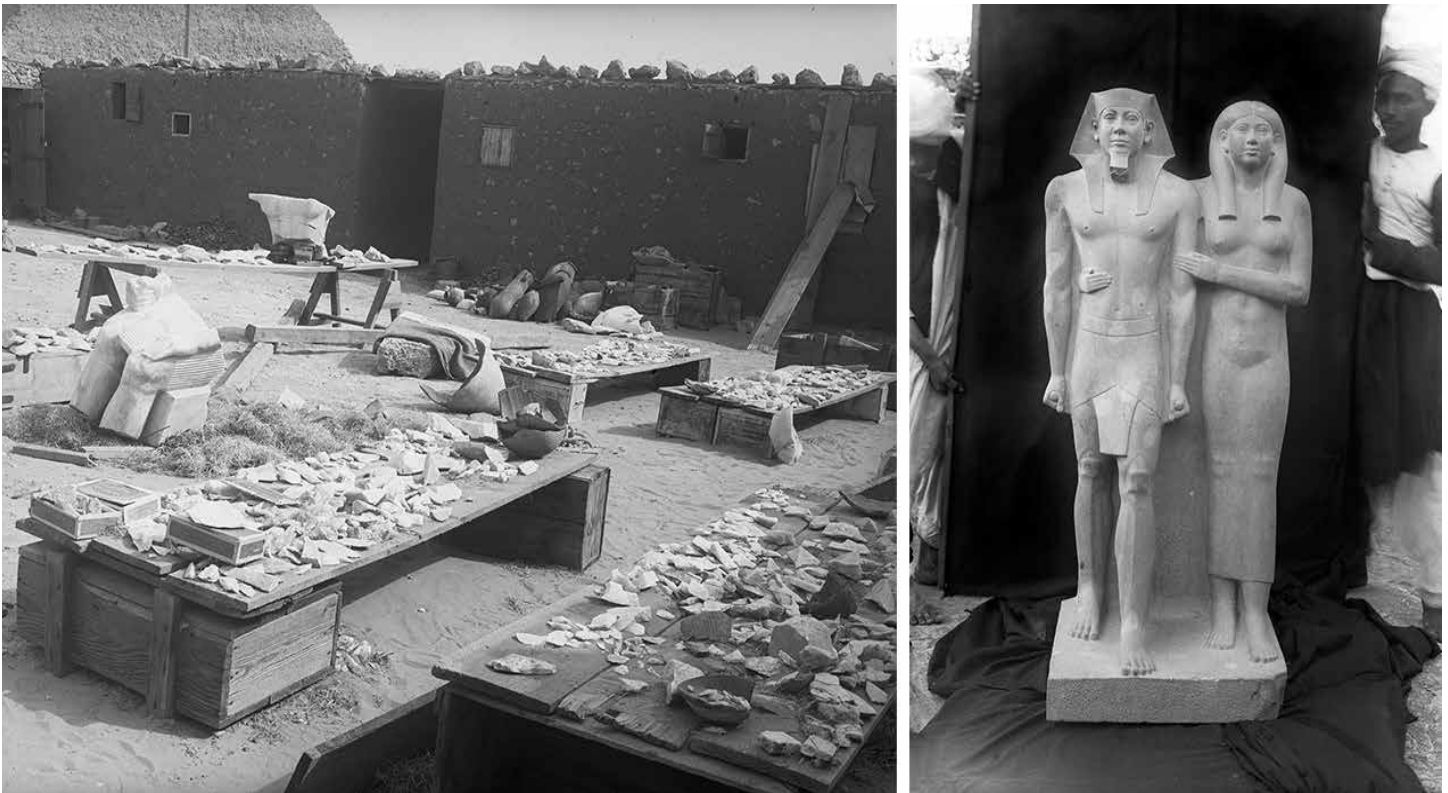


Figure 5. Left: objects in the Harvard Camp courtyard, 1907 (HU-MFA C462). Right: Menkaure pair statue being photographed, May 1910 (HU-MFA A429). Images courtesy Museum of Fine Arts, Boston.

Upon stopping by Harvard Camp, such visitors as Phoebe Hearst, Henry Clay Frick, European and American Egyptologist colleagues, celebrities, royalty, the Aga Khan, or Egyptian officials were lucky to catch glimpses of the most recent finds sitting in the courtyard. Royal statues of Menkaure came from the king's pyramid and valley temples in 1908 and 1910. For the king's famous pair statue, the Expedition diary records how forty men lined up four-meter beams underneath a platform, lifted statue and platform out of the king's valley temple on their shoulders, and slowly marched, chanting as they went, up the Plateau to deposit it in the courtyard of Harvard Camp (fig. 5). A large limestone statue niche with a family group contrasts sharply with the laundry on a line in the background (fig. 6) While the Expedition's Egyptian photographers¹⁵ documented the finds in the photographic studio, and other staff drew maps and plans, and filled the diary pages,¹⁶ object register books, guests stayed to tea on the veranda, discussing archaeology and politics with Reisner (who was fluent in Arabic) and his family.

Although watching the colors of the Pyramid change with the rising and setting sun might seem peaceful and soothing, life at Harvard Camp had its challenging

moments too. During World War I, the Australian army set up a vast camp just off the Plateau, to the north of the great Western Cemetery. Worse than soldiers occasionally taking a shortcut to the Pyramids and trampling over the excavation zones were the bullets from target practice that whizzed by the Harvard Camp buildings. Returning from their daily horseback ride, Mary Reisner and her daughter were warned to approach the Camp from an alternate route. George Reisner was forced to petition the Australians for a "cease fire."¹⁷ Another occasion that certainly terrified Reisner and the staff was the telegram received on October 27, 1913, from the MFA's director, stating that the Preussen, the ship sailing for Boston bearing crates full of irreplaceable finds from Giza and Sudan, had caught fire. Imagine excavating antiquities nearly 5,000 years old and then losing them to disaster on the high seas, with the stress-filled delays caused by the slow communications channels of the age. The water used to put out the flames caused great damage to some of the objects.

The year 1922 was bookended by two momentous world events that also impacted archaeology on the Giza Plateau. One was Egypt's declaration of independence from the British on February 28 (while Reisner was in

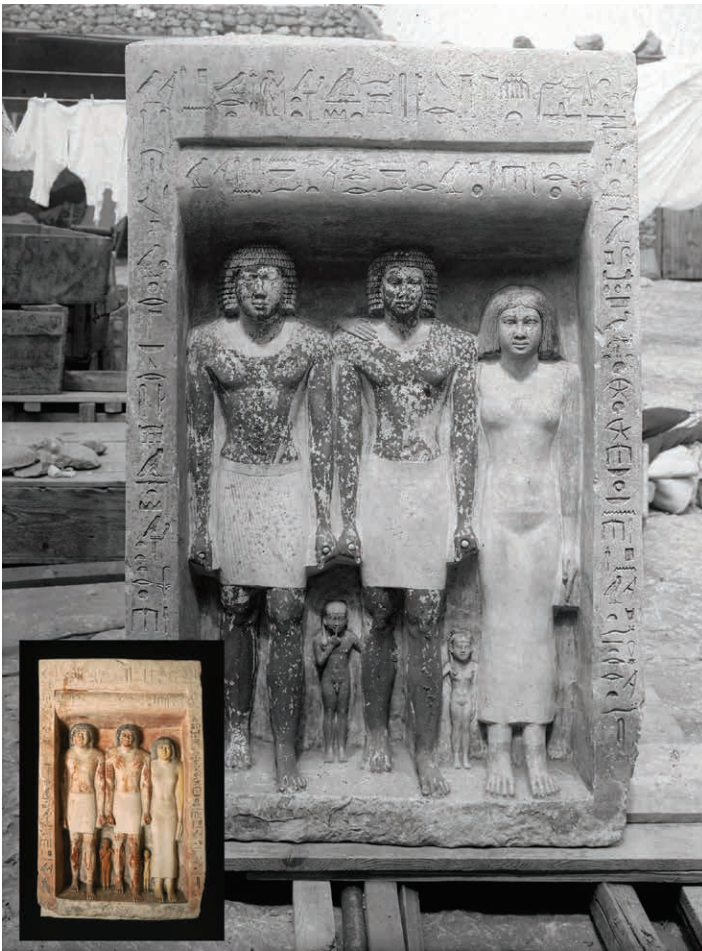


Figure 6. Penmeru niche statue (MFA 12.1484), April 24, 1912 (HU–MFA A691, with recent color photo inset). Image courtesy Museum of Fine Arts, Boston.

Sudan), and the other was Howard Carter’s November 4–5 discovery of the tomb of Tutankhamun in the Valley of the Kings (Reisner was at Harvard Camp, Giza, celebrating his 55th birthday). Both events were fraught with political implications that influenced the HU–MFA Expedition’s next great discovery, just three years later. While Reisner was back in America, teaching at Harvard, his Expedition discovered a 30-meter (90 foot)-deep shaft, apparently containing burial equipment of King Khufu’s mother, Queen Hetepheres. The difference between how Carter handled Tutankhamun versus how Reisner handled Hetepheres could not be greater.

To assist with some of the Expedition’s work, Reisner and his assistant Dows Dunham pooled their resources in April 1922 to buy a Ford car for £E140, and they created a dirt road leading up to Harvard Camp, west of the Khafre pyramid. “It gives one a curious feeling to drive up through the pyramids at one o’clock in the morning and see the lamps of the car flashing across

the faces of the pyramids and over the walls of the mastabas.”¹⁸ A curious feeling indeed, but hardly as curious as watching the Graz Zeppelin hover over the Harvard Camp and the Pyramids on April 10, 1931 (fig. 7). This unique event caught all of Cairo’s attention over a period of three days.

By the 1930s, despite additions and enlargements to the dig house, some of the more well-to-do visitors noticed the challenges facing the Expedition staff while living up on the Giza Plateau. Boston notable and MFA treasurer William Crowninshield Endicott visited the site with a small group in 1930, and witnessed some brutal windstorms that assailed the Camp. They were further upset to see Reisner stretched out on a chaise longue in the late afternoon on his open porch outside the dining room, wrapped in a steamer rug. The wind howled, forcing people to raise their voices to be heard. “A sudden gust of wind caused the small table on which stood the kerosene lamp, protected by a tin screen, to rock perilously. At the same time the light would flicker dimly and the wick of the oil heater [began] to waver and sputter.”¹⁹ Upon returning to Boston, Endicott leapt into action, writing to Reisner back at Giza: “I really do not think that your house is adequate for your comfort, and I was told by the Trustees to write and tell you that you are at liberty to spend at least two thousand dollars and put the house in such condition as you and Mrs. Reisner desire.” Endicott was cagey enough to realize the spartan Reisner would probably prefer to spend the money on the excavations, “but I really do feel that you ought to make yourself more comfortable,... and the two thousand dollars which I mention is solely for the purpose of accomplishing that very thing.”²⁰ Grateful for the assistance, Reisner built another office room for himself, added glass to most of the windows, bought new furniture and equipment, made improvements to the workmen’s quarters, and enlarged the dining and tea rooms (“We are much more comfortable now”).²¹

The size and layout of Harvard Camp changed over the years, not least to accommodate the ever-growing collection of register books, glass plate photo negatives, and other documentation archives. Day to day, Reisner’s Egyptian staff handled the food shopping, cooking, transportation for errands downtown, laundering, accounts, and repairs. Atito was the name of the sufragi (house butler) who glided effortlessly to take care of the

guests at tea in the late afternoons. Water came up to the Camp every day by camel; only many years later by car. Reisner reportedly had a sweet tooth and enjoyed grapefruit for breakfast and ending the day with a large dish of ice cream; the Camp had its own ice cream maker.

Besides George Reisner, several individuals added much color to life at Harvard Camp. In November of 1931, the Expedition hired as clerical assistant the British subject born in Tunisia, Evelyn Esther Perkins. She spoke six languages and became Reisner's protector, keeping the unwanted distractions at bay, while coaxing him to respond to his ever-mounting backlog of mail. Another guest who added much color, literally and figuratively, to the Expedition was Reisner's friend, the American artist Joseph Lindon Smith, and his wife, the Arabist and civic activist, Corinna. Smith found his calling painting oil on canvas reproductions of ancient Egyptian landscapes and antiquities. Almost every year he arrived at Harvard Camp and documented many of the Expedition's finds. Throughout the 1930s, the staff held an annual art exhibition at Harvard Camp, inviting all of Cairo's elites for the viewing. Arranging the parking for some 112 cars for 283 guests in April 1939



Figure 7. The Graf Zeppelin over the Giza Western Cemetery and mastaba. Image courtesy of the MFA.

all around the buildings was no small achievement.

Challenges came in many forms in the 1930s. First, Reisner began to lose his eyesight. After an unsuccessful surgery, he spent the final decade of his life nearly blind, but never stopped working. Then the Great Depression impacted the HU-MFA's Expedition's budgets severely. The excavation work at other sites, particularly in Sudan,



Figure 8. HU-MFA Expedition staff, February 26, 1938 (HU-MFA A7924). Middle Row, right to left: MFA director George Harold Edgell, George Reisner, Mohamed Said Ahmed Diraz, Salim the cook, and Mahmud Said Ahmed Diraz. Image courtesy Museum of Fine Arts, Boston.



Figure 9. Views of 3D computer model of Harvard Camp. Image courtesy the Giza Project, Harvard University.

ground to a halt, and the focus turned exclusively to working on the decades of Giza excavations. Master conservator Ahmed Youssef helped restore the Hetepheres furniture, now beautifully reinstalled at the Grand Egyptian Museum (GEM). Later he was the man

responsible for restoring the famous Khufu boat, also on view at the GEM.

Reisner's 70th birthday party came in 1937. In a complete surprise to him, his Egyptian and Western staff

gathered to present him with gifts (including a repeater watch, so he could “hear” the time at night, despite his blindness), read tributes and poems, and pose for many team photos. The following year, after a visit to Giza by MFA director George Edgell (fig. 8), the staff participated—on a cold February night—in the world’s first live radio broadcast from the Giza Pyramids. Miles of cables stretched from Cairo to Mena House Hotel, up to the north face of Khufu’s pyramid, and even into the so-called King’s chamber. At Harvard Camp the workmen practiced chanting and digging sound effects for the background to the show.

After war broke out in 1939, a few more years of productive work were all Reisner could manage, with declining health, and the departure of his wife and daughter for America in 1941. A series of strokes incapacitated him, and he spent much of his final year bedridden at Harvard Camp, hardly able to speak. He died on June 6, 1942, and is buried in the American Cemetery in old Cairo. Only in 1946–47, after the war, were curators from the Museum of Fine Arts, Boston, able to return to Egypt, to make the final decision to shut down the HU–MFA Expedition, and ship the remaining records home. But Harvard Camp lived on directly in the creation of the American Research Center in Egypt (www.arce.org), an organization founded at the “Club of Odd Volumes” in Boston on May 14, 1948.

Today, the Harvard Camp buildings are no more, as they stood in the way of a new road behind the Pyramids, and not far from the new Khufu Center complex of shops and restaurants. But the site lives on as a 3D model, used for teaching and learning about the archaeological process in the early 20th century. The images in fig. 9 serve to “collapse time,” since the statues shown on tables were actually discovered many years apart from one another, and would never have stood in the courtyard together. But as a means of presenting an expedition, and the men and women who made it such a spectacular success, there is no better place to explore than this exceptional piece of real estate high on the Giza Plateau. ■

Endnotes:

¹Arthur C. Mace Diary; courtesy Christopher Lee and David Orr. Archival abbreviations for this article include: AAA = JLS Joseph Lindon Smith papers, Archives of American Art, Smithsonian

Institution; DIR = Museum of Fine Arts, Boston, Director’s Correspondence; EGP AC1 = Egyptian Department Archives, Museum of Fine Arts, Boston; EGP AC13 = HU–MFA Expedition Archives, Museum of Fine Arts, Boston; HCF = Helen Clay Frick Papers, The Frick Collection/Frick Art Reference Library Archives; HMANE = Harvard Museum of the Ancient Near East Archives; HU–MFA = Harvard University–Boston Museum of Fine Arts Expedition; UCBB = University of California, Berkeley, Bancroft Library.

²James Quibell to Gaston Maspero, February 18, 1903; courtesy Tony Marks.

³Reisner to Edward Clark, March 23, 1903; UCBB.

⁴Arthur C. Mace Diary March 9, 1903; courtesy Christopher Lee and David Orr.

⁵Smith to a personal friend in Boston, January 25, 1935; EGP AC1.

⁶JW. Crowfoot, “George Reisner: An Impression,” *Antiquity* 17 (1943), 124.

⁷Reisner returned to America to teach at Harvard and curate at the MFA in 1911–12, 1921, 1925, and 1929. His final trip home was for an honorary Harvard degree and 50th Commencement celebration, in June of 1939. See, Peter Der Manuelian, *Walking Among Pharaohs. George Reisner and the Dawn of Modern Egyptology* (Oxford, 2023).

⁸Reisner to Phoebe Hearst, November 14, 1904; UCBB.

⁹Reisner to Oric Bates, May 23, 1911; HMANE, Letterbook 7.

¹⁰Reisner to Henry Bradford Washburn Jr., April 22, 1920; EGP AC13.

¹¹Phoebe Hearst to Orrin Peck, February 9, 1905; UCBB.

¹²Hearst to Orrin Peck, February 9, 1905; UCBB. The tomb in question is most likely mastaba G 1412, belonging of Katjesu.

¹³Helen Clay Frick Diary, January 30, 1912; HCF. The tomb mentioned may well be that of Kanefer (G 2150), which was being cleared at this time.

¹⁴See Peter Der Manuelian, “1912: When ‘Aida’ Came to the Pyramids,” *Forever is Now* 4 (2024), 77–85, and idem, “Taking a Break from Archaeology: ‘Aida’ at the Pyramids in 1912,” *In Situ* (Spring 2025), 8–17.

¹⁵Said Ahmed Said, Mohamedani Ibrahim, Mustapha Abu el-Hamd, Bishari Mahfud, Badawi Ahmed, Mohamed Shadduf.

¹⁶For the Harvard University Arabic Excavation Diaries Project, see <http://quft.fas.harvard.edu>.

¹⁷HU–MFA Expedition Diary, January 4, 1915; HU–MFA.

¹⁸Reisner to Fairbanks, presumably December, 1922; DIR.

¹⁹Joseph Lindon Smith unpublished notes, 1931, AAA.

²⁰William C. Endicott to Reisner, July 13, 1931; EGP AC13.

²¹Reisner to Dunham, November 4, 1931; Reisner to Endicott, July 12, 1932; EGP AC13.

Milk Roads: A Proteomic Analysis of Equine Milk Consumption in Central Asia's Agro-Pastoral Societies

ELI JOHNSON-VISIO

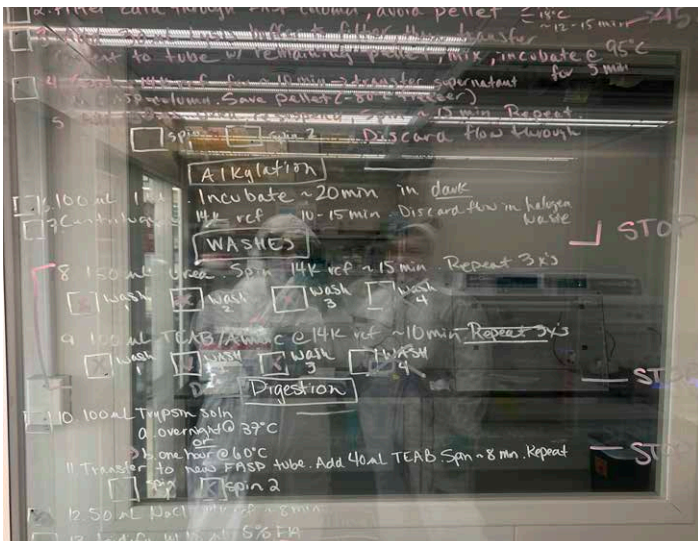
Harvard College 2026

My thesis explores the patterns and frequency of horse and ruminant milk consumption among pastoral communities within Kazakhstan, Uzbekistan, the Russian Federation, Mongolia, and Kyrgyzstan between the 8th and 15th centuries CE. While horses are well understood through their contributions to mobility and warfare within Inner Asia, their impact on everyday subsistence is less clear. The project is placed within the context of the Silk Road, a network of trade routes and regions critical to human development that linked China, Central Asia, the Middle East, and Europe from the 2nd century BCE to the 16th century CE. It seeks to generatively contribute data to the question of how ancient populations subsisted in this ecologically diverse region. The project is based on a Liquid Chromatography Tandem Mass Spectrometry investigation of dairy proteins preserved within dental calculus. Protein extraction and analysis via LC-MS/MS will identify the presence or absence of dairy proteins and



the species they come from. The primary questions to be evaluated are: What types of dairy were consumed, if any, and in what quantities? Do the kinds of dairy consumption and intensity vary by ecological regions or points in time? What is the relationship between the consumption of horse dairy, the chronology of horse domestication, and the relationship between animal management and mobility across Inner Asia?

This project seeks to contribute to understanding the history of dairy consumption in Asia and to help address the scarcity of direct evidence on equine milk. Specifically, it contributes to underdeveloped datasets documenting the time dairy consumption emerged, and the regions the practice emerged. Current biomolecular evidence suggests that horse milk consumption only became prevalent in the archaeological record more than a millennium after domestication and thousands of kilometers east of where the earliest horse cultures began, creating an interesting puzzle. The differences in geography and timing make it difficult to determine how fast dairying developed alongside horse management and mobility. Current approaches for identifying dairy consumption often rely on characterizing the carbon isotopes of milk fats in pottery, but this can be challenging to apply to horse milk. Unlike for ruminants, the adipose and milk fats of equids are isotopically highly similar, and pottery can also be reused—meaning that many different fats may be mixed together, thus giving a mixed signal. Proteomic



Eli Johnson-Visio reviewing the ancient protein extraction protocol with postdoc Dr. Ashley Scott in the Warinner Ancient Biomolecules Laboratory (WABL) in the Harvard BioLabs.

investigations get around these problems and have the added advantage of being highly species-specific. This project investigates the milk protein β -lactoglobulin, which preserves in the dental calculus (calcified dental plaque) of ancient people, and its detection provides a highly individualized picture of milk consumption in the past.

The broader goal of this study is to better understand horse milking's connection to past and present subsistence systems. The consumption of dairy is still an integral part of modern-day subsistence; pastoralism remains a critical lifeway today. Because dairy products allowed mobile herders to survive in areas where agriculture wasn't ecologically feasible, pastoralism can be viewed as an adaptation that influenced how many modern communities sustain themselves today. By evaluating the history of horse and ruminant dairying, this study aims to understand past and present connections between mobility, the environment, and human subsistence throughout Central Asia. Understanding when horse dairying began and how common it was is key to understanding both the economic importance and cultural meaning of horse-human relationships on the steppe in the past and their impact on modern society.

Chinampas and Human-Environmental Interactions in the Basin of Mexico

ELISABETH NGO

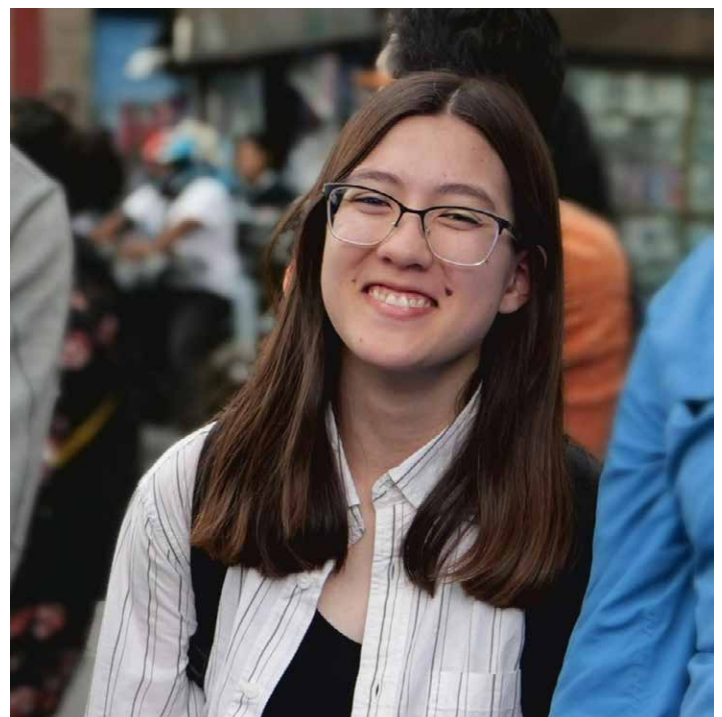
Harvard College 2026, Hoopes Prize winner

The Basin of Mexico has historically been prone to droughts, some of which—like the drought of One Rabbit in 1454—led to famine, disease, and mass migrations. Although chinampas, a form of lacustrine raised field agriculture, had the potential to be more drought-resilient, it is less clear to what extent the Aztecs used chinampas as a response to drought.

Furthermore, while the chinampa system was highly productive, it has since been largely abandoned, with only a few chinampa zones remaining in Xochimilco, a borough of Mexico City. This raises questions about the dynamics that drove chinampa development and desertion. This thesis uses GIS analysis of declassified HEXAGON satellite imagery to investigate how, if at all, spatial aspects of the locations and sizes of chinampas might provide insight into their role in human-environmental interactions and humans' responses

to droughts. It also draws upon conversations with farmers who cultivate modern chinampas and fields in Teotihuacan to explore the ways that they interface with modern environmental, economic, and social pressures. This research contributes to my joint senior thesis in Anthropology (on the Archaeology track) and Earth and Planetary Science. As such, it aims to apply archaeological methods and theory and bridge both Earth science and anthropological elements. The project considers the chinampas from an environmental perspective and places them in a broader time context, considering the influences of Teotihuacan on their development and chinampas' legacy in the present, with regard to present-day water management concerns.

Chinampas have been the subject of much study. Much scholarship seems to address chinampas' role within systems of land ownership and control and use as an economic and political tool, leading to debates regarding the relative importance of top-down versus bottom-up pressures in chinampa construction and use. Other scholars focus on the physical construction of chinampas and the types of crops that would have been cultivated. Still others, especially in the context of Teotihuacan, discuss the symbolic importance of water and its depictions in cultural materials. This project aims to synthesize these approaches to consider how environmental influences may have impacted the various levels of chinampa control, from individual farmers to the broader system. This work will contribute to identifying chinampas in the Mexico City area



An Analysis of Identity in the Iron Age Balkans through Anthropomorphic Fibulae in the Mecklenburg Collection

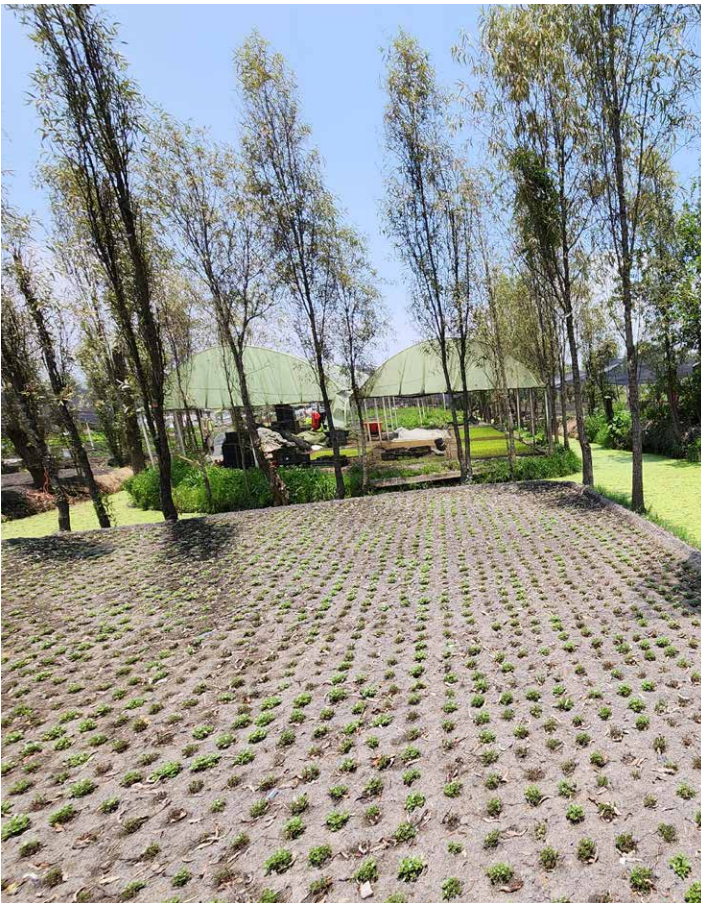
ISABELLA MCMILLEN

Harvard College 2026

My project will investigate Slovenian and Austrian fibulae (brooches) from the Iron Age (ca. 800 BCE–1 CE). Through the use of archival research, artifact analysis, and data utilization, I aim to elucidate varying aspects of European prehistory including burial practices, trade, and adornments. The fibulae I am focusing on come from the Harvard Peabody Museum's Mecklenburg Collection which is comprised of four sites; three of which have scholarship devoted to them (i.e., Hallstatt, Stična, and Magdalenska gora), while artifacts from the Vinica site have been comparatively overlooked. Given the potential of these materials, my research seeks to fill this gap by focusing on the fibulae from Vinica within the Mecklenburg Collection. These artifacts, especially the unique anthropomorphic fibulae, offer a promising avenue for exploring how adornment practices were used to display identity in Iron Age Slovenia, particularly in the Japodian culture that inhabited Vinica, filling a knowledge gap within the field of European Iron Age archaeology.

I plan to execute this project through a combination of archival research, artifact analysis, and data utilization. Artifact analysis will consist primarily of weighing, comparison of symbols, and examination of fasteners. I plan to weigh the fibulae with a digital scale to obtain data on the fibulae mass, adding to the objects' physical descriptive information which currently consists mainly of dimensions. Both comparison of symbols and examination of fasteners will be done through a physical "naked-eye" examination of the fibulae. While I will be creating data, I also plan to use and utilize data provided by the Peabody Museum, such as site spreadsheets that include information on artifact materials and intrasite details, to assist in gauging association patterns. Using both these intersite and intrasite comparisons of fibulae, my analysis will seek to explain the role of adornments within Vinica's local community and the broader Balkan region.

By examining both the local and regional significance of these adornments, my research looks to fill critical gaps in the existing literature and offer fresh perspec-



Modern chinampas in Xochimilco, Mexico City.
Photo courtesy of Elisabeth Ngo.

and understanding the current state of surviving fields. This research may also prompt future exploration into the locations of manantiales (springs) in Teotihuacan and the relationship between spring-fed agriculture and the chinampas.

Modern chinampas are vulnerable to threats from urban development and climate change, with some farmers worrying that the system may disappear within the next few decades. I therefore hope that my work might encourage greater appreciation of chinampas and reflection regarding how archaeology may be used to inform aspects of chinampa preservation or the development of agriculture systems in the face of water shortages, the falling water table, and other threats to the agriculture and water systems in the Basin of Mexico. I hope my work can incorporate the thoughts and concerns of modern farmers, involving them in the dialogue via their deep, personal understandings of the chinampa system and their collective memory of the past, both within their lifetimes and as part of a longer historical lineage.



tives on the complexities of Iron Age dress and adornment. I hope to contribute to the scholarly discussion surrounding identity and adornment, deepening the understanding of how adornment (particularly fibulae) was used as a form of identity expression in prehistoric societies. Using a post-processual lens, individual agency will be at the center of my analysis, differentiating my research from the prevalent culture-history theory that has been used to study the Mecklenburg Collection in the past. Additionally, though gender is regularly at the forefront of identity studies, I plan to analyze the fibulae of Vinica from both a local and regional perspective, opening the discussion up to topics of communal identity and social status in Iron Age Slovenia.

This focus on identity, however, cannot be fully realized without considering the broader context in which these artifacts were discovered—i.e., the Mecklenburg Collection itself—an underexplored resource for understanding prehistoric cultures across the Balkan region. Through my research, I aim to not only advance the understanding of Vinica, but also elevate the scholarly attention given to the entire Mecklenburg Collection. This effort to revitalize an understudied archive has the potential to inspire renewed interest in other sites within the collection, offering fresh insights into regions and cultures that have long been overlooked. I hope this reexamination could foster further research, pushing forward new avenues of inquiry into the prehistoric past and the ways in which adornment, identity, and social structure were communicated through material culture across the Iron Age Balkans. ■



An example of an anthropomorphic fibula from the site of Vinica, Slovenia. Image courtesy of the Peabody Museum of Archaeology and Ethnology, Harvard University, 40-77-40/10763.

Teaching With Objects in the Classroom at Harvard College

EMILY PIERCE ROSE

Associate Director of Academic Partnerships, PMAE

The Academic Partnership department at the Peabody Museum is a small group of staff who are committed to engaging the Harvard community with both the items the museum stewards and the work of the museum more broadly. We primarily fulfill this mission by working with Harvard course instructors to design course visits utilizing the museum and its collections towards course goals, whether that be discussing the evolution of lithic technology over time or exploring the ethics of historic museum collections and contemporary display.

This past year, we have served approximately 1,200 students through course visits to the Peabody Museum. We prioritize designing visits that use active learning techniques which allow students to be hands-on with items and with exploring the complex content present within the Peabody. Our teaching has increasingly focused on the ethical stewardship of museum collections, repatriation, and restitution.



Some teaching highlights include:

- A provenance workshop for a graduate seminar on Cultural History.
- Multiple class visits focused on building research skills such as close observation, archival literacy, and generating research questions. We even had a class visit focusing specifically on using material culture for ethnographic research methods!
- A workshop for prospective graduate students focused on institutional research skills such as how to work with different repositories, how to make requests, and what types of information you can expect to find in museums or special collections databases.



Aside from classes, we also support independent and course-based research including senior theses and dissertations using museum collections. We are so happy to be able to support the research of students and faculty at Harvard, and to contribute to the education of the students here!

From Excavation Sites to Zoom Rooms: Connecting Classrooms with Culture

ANDREW MAJEWSKI

Education Specialist, HMSC

POLLY HUBBARD

Education Director, HMSC

You've likely seen us guiding energetic groups through the Peabody Museum or the Harvard Museum of the Ancient Near East. Perhaps we've consulted you on a visitor's archaeological question, or you've tiptoed past a Zoom session for 6th graders in California. These moments are the heart of our mission: bringing anthropology into the community and sharing Harvard's research with the world.



K-12 learning at the Peabody Museum. Image courtesy of Mark Craig.

As one of two Education Departments within The Harvard Museums of Science & Culture (HMSC), we translate complex research for the public. HMSC provides core support and public-facing activities such as exhibit production, marketing, tour guide training, visitor services, field trips, workshops, public lectures, and membership to six science-focused museums within the Faculty of Arts and Sciences.

In FY25, we reached 8,000 K-12 students and teachers through ten specialized school programs and a rotating roster of graduate student speakers. Beyond the classroom, our summer camps, bilingual teen programs, and public family festivals create year-round opportunities for visitors from campus, Greater Boston, and beyond to explore global science and cultures.

Core Archaeology Programs

We bring archaeology to life for K-12 students through three signature initiatives:

Virtual Archaeologist in the Classroom: Harvard graduate students make 30-minute Zoom appearances in schools nationwide to discuss their research and archaeology. To spark curiosity, classrooms watch a short video produced by graduate students before the session. Since 2020, 13 presenters have covered topics ranging from nomadic herders in Mongolia to Inka Khipus. HMSC staff manage reservations, marketing, student payment, and assist student archaeologists in targeting their presentations to younger audiences.

In the Peabody Virtual Archaeologist in the Classroom program, Harvard PhD students and recent graduates, like zooarchaeologist Dr. Melina Seabrook, bring their experience from the field and the lab into K-12 classrooms.



Foragers to Farmers: In this 60-minute immersive program, middle schoolers compare nomadic and sedentary Neolithic lifeways. Students tour the galleries and participate in hands-on workshops using stone blades and grinding tools. To prepare for their visit, classes use our "mock dig" artifact kits to develop and test their own hypotheses.

Archaeology Fair: This high-energy event connects 600–800 visitors with Harvard faculty and Archaeology students. Guests can flint knap stone tools, handle reproduction artifacts, or explore sites via augmented reality. Our department prepares hands-on materials, coaches presenters on public engagement, and evaluates the event's impact on the community.

Drop in and watch a class, become a tour guide, or present at the annual archaeology fair or in a virtual classroom. We welcome your participation! Learn more in the 24-25 HMSC Annual Report. ■



Foragers to Farmers at the Peabody Museum. Image courtesy of Faith Sutter.



AMAZING ARCHAEOLOGY FAIR


ANDREW MAJEWSKI
Education Specialist, HMSC











Cords on khipu 32-30-30/53 in the Harvard Peabody Museum of Archaeology and Ethnology (photo by Mackinley FitzPatrick).

BUILDING PATHWAYS INTO KHIPU RESEARCH: OPENNESS, ACCESS, AND THE NEXT GENERATION

Sahil Jain

Senior at The Harker School, California

Mackinley FitzPatrick

PhD Candidate in Anthropology, Harvard University

Opening the Gates

(Mackinley FitzPatrick)

The study of any sub-field can often feel like a closed club—usually because it is, whether intentionally or not. The study of khipus, Andean knotted-cord records, is a textbook example, with only a handful of scholars working on these records full time. That scarcity stems partly from the obvious limitations of time and resources, but also from the esoteric aura that has long surrounded both the objects and their study.

At Harvard, this exclusivity is especially palpable. Yet, in the past few years, my colleagues and I have made an effort to begin dismantling the barriers often

maintained by earlier scholarship. Through initiatives such as the Open Khipu Repository, we track and host open source khipu data, and as part of the Khipu Field Guide project, I work with an interdisciplinary team to make khipu datasets more accessible and to advance both decipherment efforts and broader awareness of the field.

While these initiatives are a strong start, they're not enough on their own. Eliminating the field's exclusivity requires making khipus genuinely legible and approachable to anyone—not only through open datasets and transparent methods, but through a real commitment to teaching the material from the ground up—and this goes beyond collaboration among specialists.

I have personally found outreach through volunteering at Peabody museum fairs, running classroom and workshop sessions for adults and children, and mentoring interested students to be some of the most rewarding means. Rather than distractions from my research efforts, these activities have acted to further sharpen my research questions and improve how I communicate with both scholars and the public.

Khipus sit at the crossroads of archaeology, fiber technology, mathematics, linguistics, colonial history, data science, and more—an intimidating mix for any newcomer. That’s why mentorship matters. Over the past few years, I’ve worked with several high-school students, most recently Sahil Jain, often using the Peabody Museum’s khipu collection to give them hands-on experience with real materials. Sahil’s trajectory captures exactly what I hope khipu studies—and many other fields—can foster: someone with no background willing to dive in, ask hard questions, and figure out how new methods, such as computational analysis, can push our existing knowledge further.

What follows is Sahil’s account of entering khipu studies not through coursework or inherited expertise, but through curiosity—and why accessibility and hands-on experience with collections, like those at the Peabody Museum, matter.

Starting in Khipu Research

(Sahil Jain)

I first learned about khipus when I was in my ninth grade history class. They were interesting to me and I had hoped that they would be the subject of some further research, but as my history test came and went, so too did my memory of these mysterious knots.

The story of how my interest in khipus was reignited is somewhat serendipitous. While I was pursuing my interests in anthropology and archaeology, I happened upon a paper about using declassified CIA spy satellite imagery for surveying archaeological sites (see Hammer et al., doi:10.15184/aqy.2022.22). At the time, I did not know a whole lot about surveying; yet, it was fascinating to look through a declassified CIA database. One of the authors on that paper was Mackinley FitzPatrick, a Harvard PhD student, who is now my research mentor. As I explored further, I quickly learned about his work on the decipherment of the Santa

Valley khipus, and it once again revived my curiosity from ninth grade.

I found khipus fascinating on multiple fronts. First, they contained encoded information, representing a whole new knowledge system waiting to be explored. At the same time the work done on their decipherment intersected with math and computation, bridging my various interests together. Second, they represented a multisensory medium of communication—using visual elements like color, and uniquely incorporating an element we do not often see in our communication mediums today—that of touch! This tactile medium which khipukamayuqs (“khipu keepers or knot keepers”) so adeptly used to “read” encoded numbers, and possibly words, opened a realm of possibilities, adding a novel dimension to how we commonly think about transmitting knowledge today. Third, khipus were objects not simply created as works of art, but ones that served an important purpose in the governance of one of the most widespread and important empires of its time—the Inka Empire (ca. 1400–1532). Learning about khipus also granted me a window into Inka history, a period of keen interest to me, transporting me back to my ninth grade history class.

I quickly realized the allure of research: filling in the gaps in our understanding and thinking critically on my own. The process of research was an exciting complement to my high school courses - a true opportunity to learn by applying what I had absorbed in school. As a researcher, I was not just covering and applying; I was uncovering the secrets of the past.

For less than 200 years, the Inka ruled a vast empire, connected by 40,000 km of roads. The Inka did not have beasts of burden—the closest they had to a horse or camel was the llama—and instead messages were carried along the Inka Chapac Ñan (“royal road”) by chasquis, professional runners. The Inka also did not use paper, opting instead to record data using a series of strings and knots, dubbed khipu. With only around 1400 extant khipus known today, archaeologists have a small dataset, but a vast number of tools at our fingertips to be able to unravel the mysteries of the Inka.

As I started my research, I had to quickly come up to speed on the details—colors, types of knots, the numerical interpretations, current research, and connections beyond decipherment into knot theory and

general cordage and textiles. In my research, I made use of data provided by the Khipu Field Guide database, which contains translations for over 600 of these complex sets of knotted cords as Excel spreadsheets. These datasheets record common khipu attributes, like colors, knot patterns, dimensions, and fiber types. I began using statistics and data science techniques to study this data as a means to understand the level of standardization within Inkan khipu construction.

My progress skyrocketed when I had the opportunity to finally connect the numbers I had been analyzing to the artifacts themselves. As I lightly ran my fingers down khipu 32-30-30/53 at the Peabody Museum, the numbers I had once analyzed on a screen appeared in front of me. As I learned the origin story and how the

data on this artifact aligned with the spreadsheet, I began to ask about the provenience, where the Ascher sums were, and what seriation patterns the khipu exhibited. Just a year before, these terms would have been foreign to me. Viewing khipus for the first time at Harvard inspired me to consider khipus not as just a set of numbers, but meticulously crafted works of functional art.

As I dove even deeper, I discovered that understanding how to craft khipus created interesting paths of exploration. Taking inspiration from videos created by Dr. Jon Clindaniel, a former Harvard PhD student now teaching at the University of Chicago, I began learning about the process of creating a khipu. These processes helped spark new ideas in my analysis, such



Sahil Jain with khipu 80.1012 in the Stanford University Archaeology Collections (photo by Veronica Jacobs-Edmondson).



Khipu AK002 glued to a red felt backing (photo by Sahil Jain with permission from Ashok Khosla).

as how the number of cords on a khipu affected the lengths of cords. Although this theory did not prove fruitful, it provided me with insight into how khipus may have been used and the incredible talent and precision that went into creating each. The videos also sparked thoughts about how Inka khipukamayusqs may have tied khipu knots at incredible speed: was each cord hand-crafted, or was there a standard-issue cord that was used? In order to test this theory, I worked to understand how much the cord shortened with the addition of each knot type. Using this information, my research revealed that there was not just one “standard-issue” cord. Rather, khipukamayusqs may have used multiple different lengths, planning to make sure that when they start tying knots, the cord’s final length would end close to the cord lengths of other cords within the khipu.

Further reading proved fruitful, as I realized that the khipu bundling process—used to store and transport them—would lead to cords tending to have similar lengths, as unusually long cords would be susceptible to damage during transport. Therefore, each khipu has a very standardized length, even more apparent when filtering the data to pendant cords.

One thing that always struck me was how researchers have taken complex, unique objects, such as khipus,

and deconstructed them into a series of numbers on an Excel sheet. What if computation could illuminate, rather than erase, the human stories behind khipu knots? Could algorithms trace not just patterns, but relationships—between people, histories, and forms of memory?

I have also begun conducting my own personal explorations beyond Mack’s guidance, looking at individual khipus, such as AK002 and Stanford khipu 80.1012. AK002, in particular, has some abnormalities due to the horrible treatment it has faced—being cut and hot-glued to fit a piece of felt. Still, learning about different khipus and their histories brought them back to life for me, turning them from a mere set of numbers on an Excel sheet into complex histories and markers of their time.

I have learned so much about myself through this process of research: my limits, my patience, and my drive to stay curious even when the answers are elusive. Working with khipus has taught me that progress in discovery often happens slowly—through threads of persistence, not flashes of brilliance. I now understand that research is most rewarding when answers lead to more questions, following the knots where they lead. ■

AROUND THE WORLD WITH HARVARD ARCHAEOLOGISTS

Edited by Mackinley FitzPatrick

Ancestral Jemez Pueblo
Agriculture
Jemez Mountains, New Mexico, USA



Ancient Maya
Kinship Project
Lower Dover, Belize



Bioarchaeology of
Los Guachimontones
Teuchitlan, Jalisco, Mexico



Analysis of the Khipus from
Laguna de los Cóndores
Leymebamba, Chachapoyas, Peru



Excavations at the MSA
site of Jorf el Hamam
Essaouira, Morocco



The Falerii Novi Project
Lazio, Italy



Casa della Regina Carolina Project
Pompeii, Italy



The Archaeological Exploration of Sardis
Salihli, Türkiye



Elephant Ivory in Ancient Sichuan
Sanxingdui, China



Harvard-Kenya Field Program
Lake Turkana & Mombasa, Kenya



Khirbat al-Mukhayyat Archaeological Project
Madaba, Jordan



Harvard archaeologists work at field sites around the world - get to know some of their long-term projects on each continent!



Figure 1. Location of major urban centers in China during Shang and Western Zhou dynasties.

URBAN FRAMEWORK OF THE WESTERN ZHOU CAPITAL: WALLS AND WATERWAYS AT THE ZHOUYUAN SITE

Xiaoge He (*Post-doctoral fellow in Anthropology*)

Introduction

City walls, roads, rivers and ditches constitute the “framework features” of urban archaeology and are crucial for studying the spatial layout of remains within and around ancient cities. The urban framework evolved together with different functional zones, both facilitating and constraining their development. As a transitional stage from the origins to the maturity of urbanism in China, the Bronze Age has long attracted intensive fieldwork and research. However, findings related to framework features remain scarce for the Western Zhou dynasty (1046–771 BCE), one of the Three Dynasties frequently cited in later texts. The latest archaeological discoveries at the Zhouyuan site offer the first opportunity to explore the spatial layout of a Western Zhou capital.

The Zhouyuan site is located at the junction of present-day Fufeng and Qishan counties in Shaanxi

Province, on the southern foothills of Mount Qi and the upper reaches of the Qixing River (Figure 1). It covers an area of 30km² and is the largest site of the proto-Zhou and Western Zhou periods. On the basis of textual sources and inscriptions on ceramic and bronze vessels, Zhouyuan has been identified as one of the capitals of the Western Zhou dynasty. Archaeological investigations at Zhouyuan have been ongoing for nearly a century, revealing rich remains, including large architectural foundations, craft workshops, bronze hoards, residential clusters and cemeteries. Yet, in the long absence of clearly defined elements of the framework, the overall pattern of urban development has remained obscure.

Discovery

From 2009 to 2015, survey and coring at Zhouyuan revealed extensive water-management remains, including channels and pools, with excavations conducted at

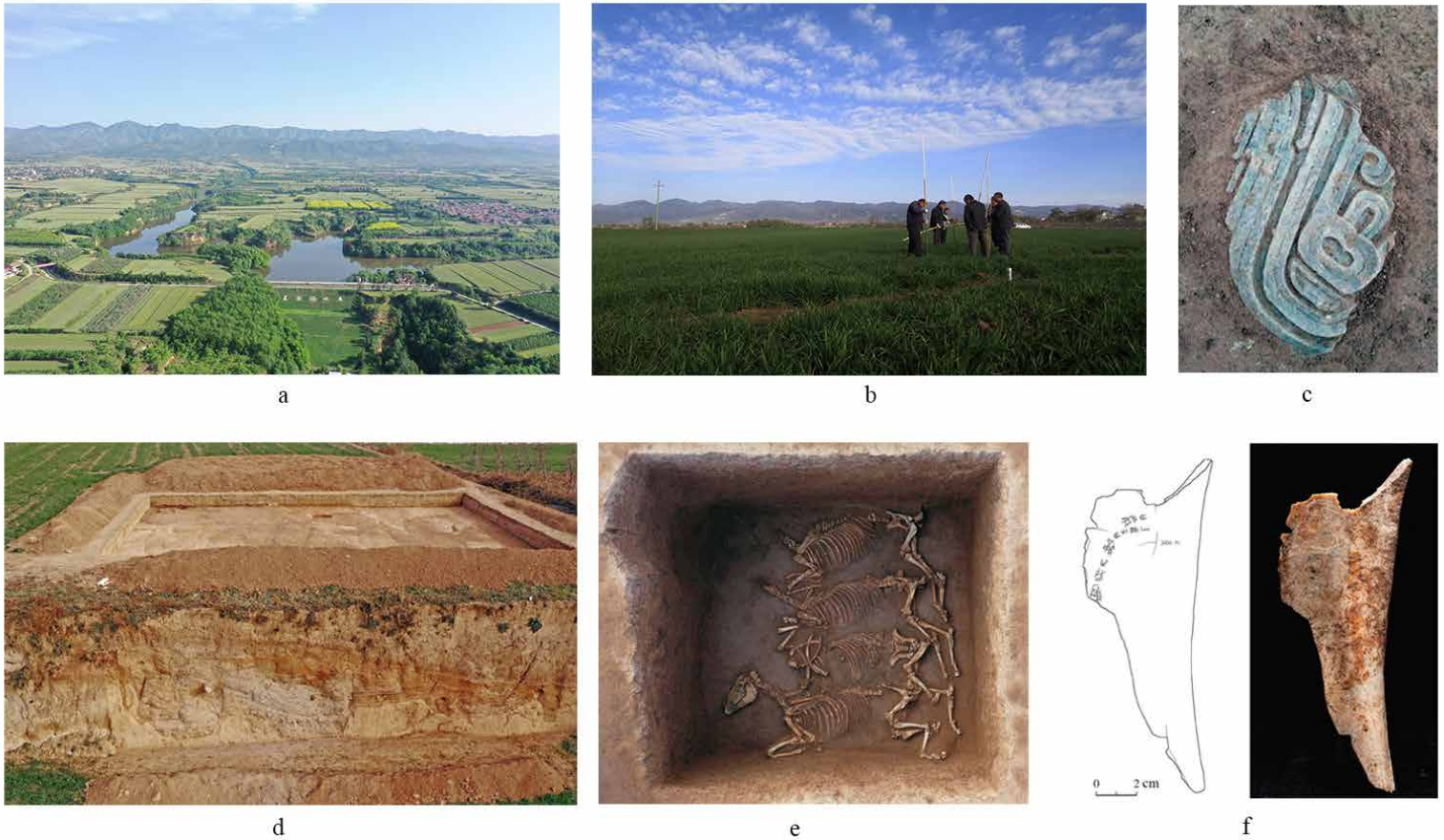


Figure 2. Views of the site, fieldwork and findings. (a) south-west corner of the Wangjiazui gully; (b) coring survey; (c) bronze vessel fragment collected from the surface near the east gate of the outer city; (d) test trench and cleaned section in the Qijia South locus; (e) horse pit near the east gate of the outer city; (f) oracle bone with an inscription referring to the Zhou king.

a few locations. Since 2020, drawing on analyses of aerial photographs, the Zhouyuan archaeological team—composed mainly of members from Peking University, the Shaanxi Academy of Archaeology, and the Institute of Archaeology, Chinese Academy of Social Sciences—has embarked on a new search for city walls (Figure 2bd). I have participated in this project since its inception in 2020.

By 2025, three nested rammed-earth walled enclosures had been identified at Zhouyuan: from inside to outside, the palace city, the inner city and the outer city (Figure 3). The palace city and inner city share the same north wall and the northern stretches of the east and west walls, which are aligned 8° west of due north. The palace city occupies an elevated platform in the northern half of the inner city, measuring c. 1480m east–west by 600m north–south, with an area of about 0.9km^2 ; it is the largest palatial enclosure so far known from the Shang and Zhou periods. On the eastern part of the south wall, an entrance and its outer moat with associated facilities have been identified, together with an approach road showing wheel ruts; oracle bones

bearing inscriptions referring to the Zhou king were recovered from the moat (Figure 2f). The inner city measures c. 1480m east–west by 1065m north–south, covering an area of about 1.75km^2 . Test trenches and cleaning of natural sections indicate that both the palace city and the inner city were first constructed in the early Western Zhou (ca. 1050-1000 BCE) and remained in use until the abandonment of this site in 771 BCE. The outer city represents a late Western Zhou expansion (ca. 850-771 BCE), sharing the same orientation as the palace city and inner city: its north wall lies on the eastward extension of the palace city's north wall. The outer city measures c. 2700m east–west by 1800m north–south, with an area of about 5.2km^2 . On the southern section of the east wall, an entrance was identified, accompanied by an approach road, defensive and administrative structures, and sacrificial horse pits (Figure 2e).

The water system surrounding and traversing the Zhouyuan walled complex can be summarized as three north–south, three east–west and two diagonal channels. As the site slopes from north to south, natural

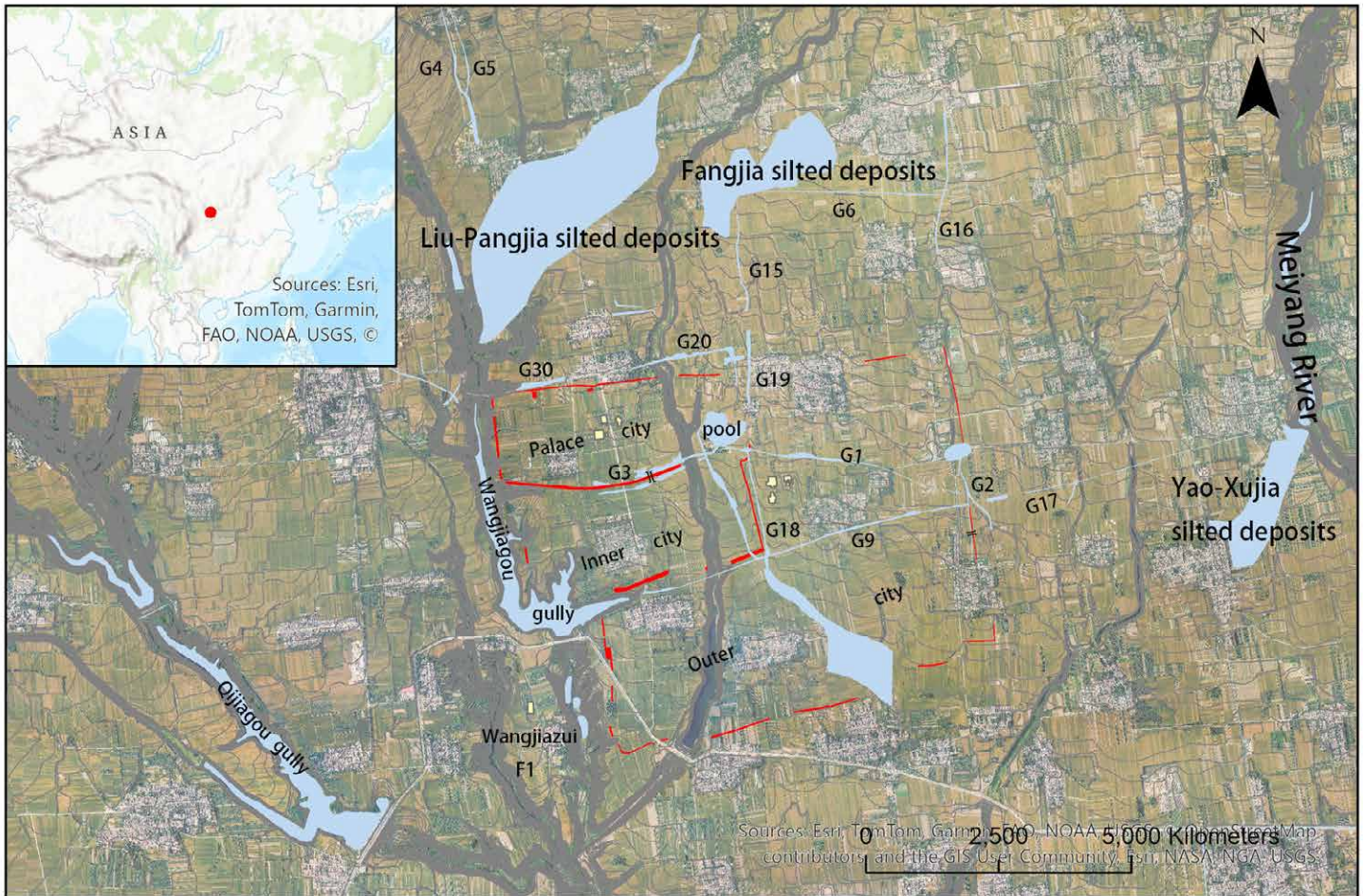


Figure 3. Plan of the framework features at the Zhouyuan site

runoff follows this direction, whereas the east–west channels are best understood as artificial ditches. On the west, the natural gully of Wangjiagou was already being used by proto-Zhou elites. From the early Western Zhou, the west walls of the palace city and inner city were laid out 30–50m east of this gully and were flanked by interconnected moats; a large artificial pool was also constructed at the south-eastern corner of the palace city. In the late Western Zhou, the outer city shows no purpose-built moats. Instead, two main channels traverse its interior: G9, originally the southern moat of the inner city, links Wangjiagou in the west with water features to the east, while G1 runs diagonally from the pool at the north-eastern corner of the palace city to join G9 outside the east wall. Several workshops and hoards cluster in the southern half of the outer city, near a large silted area created by a NW–SE ditch originating at the pool; this system may have served as a catchment facility, but it still requires further excavation.

Discussion and Conclusion

On the west side of the Wangjiagou gully, the Wangjiazui area contains large proto-Zhou architectural foundations and high-status tombs, which appear to have formed the political center of proto-Zhou elites before the conquest of the Shang. In the early Western Zhou, the construction of a new capital accompanied the conquest of the Shang and subsequent east-ward expansion. Constrained on three sides by the gullies flanking Wangjiazui, the Zhou people could not extend the settlement, and therefore selected the broad plain east of Wangjiagou as the location of the new capital, continuing to rely on the familiar gully as a key source of water and defense while building the palace city and inner city. The near-right-angled bend of the Wangjiagou reservoir (Figure 2a), which provided a crucial clue in the recent search for the city walls, was very likely also used by the Western Zhou planners as a reference point, forming the south-western corner from which the walls were extended over a kilometer to the east and north. This zone lies at a safe distance from the foot of Mount Qi, leaving sufficient space to mitigate the risk of flash floods. Topographically, the

Zhouyuan site occupies a waterlogged belt between the Qixing and Meiyang rivers, two coalescing alluvial fans at the southern foot of Mount Qi. About 3km south of the mountain front there is a natural rise, on which the Western Zhou palace city was built; its north and south walls neatly enclose this higher ground, and their orientation broadly follows the contour lines. This elevated platform thus constituted another key factor in the selection of the Western Zhou city site at Zhouyuan (Figure 4).

The discovery of walls and waterways in the Western Zhou city at Zhouyuan explains previously recognized patterns in the distribution of archaeological remains and deepens our understanding of its urban development. It provides a referential framework for earlier finds, allowing isolated features to be reassessed in relation to one another and marking an important step towards clarifying the city's spatial layout. The city's large scale and orderly plan offer crucial evidence for resolving the long-debated question of the nature of the Zhouyuan site; together with inscribed materials, they confirm that Zhouyuan was the Western Zhou capital named Zongzhou (i.e., the principal ancestral capital).

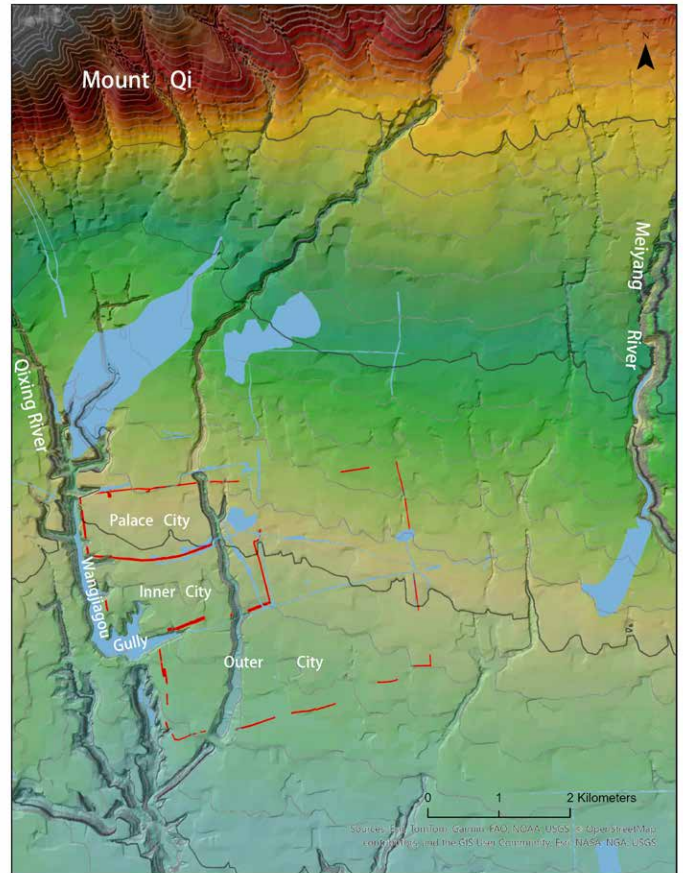
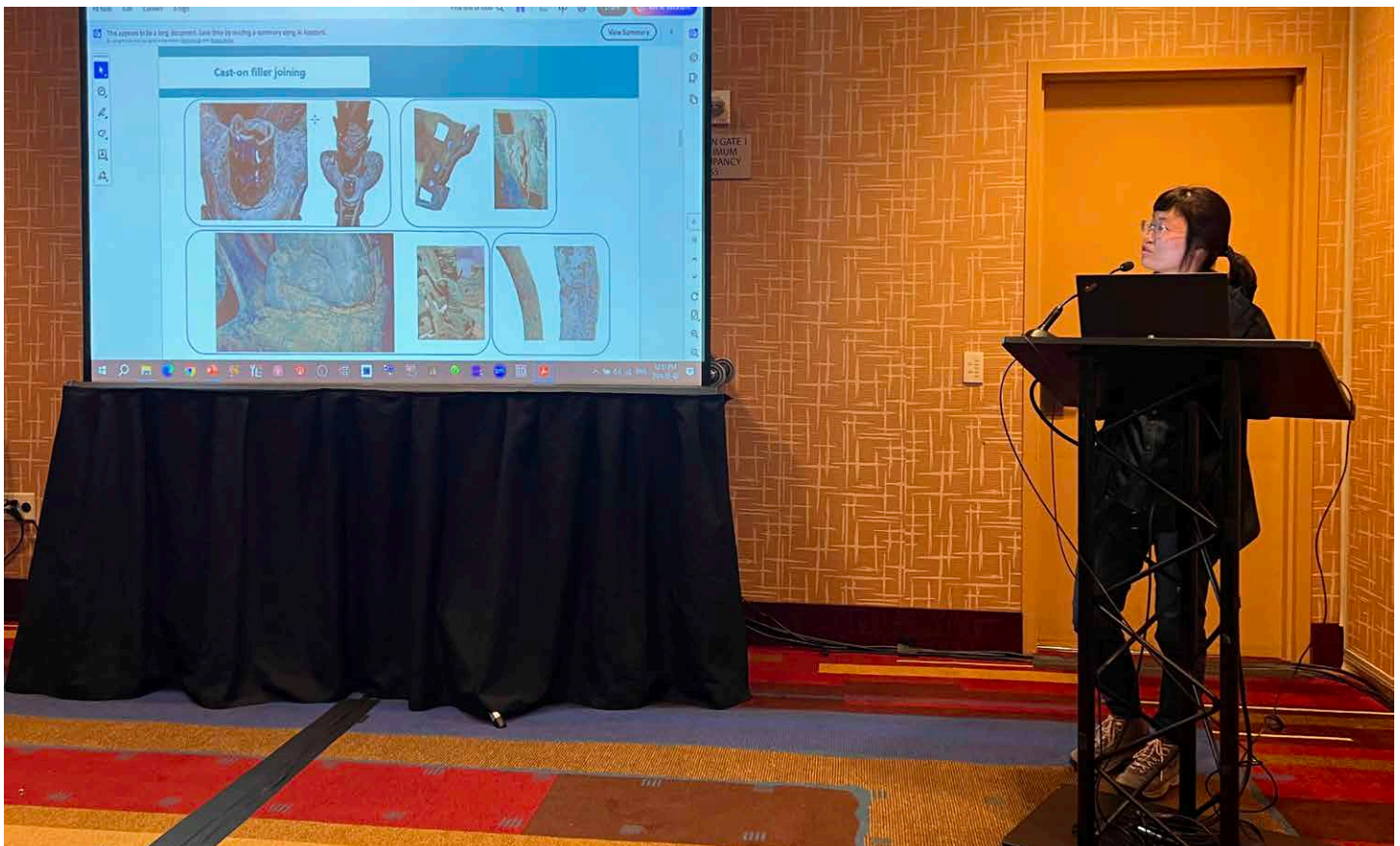


Figure 4. Topographic map of the Zhouyuan site



Dr. Xiaoge He presents her research at the 2026 Society for American Archaeology meetings in San Francisco, CA

SCIENCE JOURNALISM CORNER

Catch up on archaeology news with student science journalists in the course HEB 183, taught by Dr. Bridget Alex



Archaeologists Interpret New Findings on Ancient Chinese Bronze Swords

EMILY DING

About 2,500 years ago, two rival kingdoms in what is now eastern China waged near-constant warfare. Called the states of Wu and Yue, they produced swords that became objects of renown—and in some cases, legend. The classic text *Zhuangzi* exalts the bronze swords of Wu and Yue as treasures so valuable their owners refrain from “using them frivolously, for their worth is inestimable.”

Many of these blades have survived for millennia, and some even display little to no corrosion. How did ancient swordsmiths make weapons that endured for so long?

A recent study published in September 2025 in *Archaeological and Anthropological Sciences* offers an answer. A team of researchers from cultural heritage institutes in China’s Shandong Province uncovered a 2,500-year-old bronze sword in Tengzhou, a city in eastern China. They analyzed its surface using a suite of microscopic and experimental methods. Their findings reveal ancient swordsmiths engineered an ultra-thin, tin-rich layer on the blade’s surface. Previous

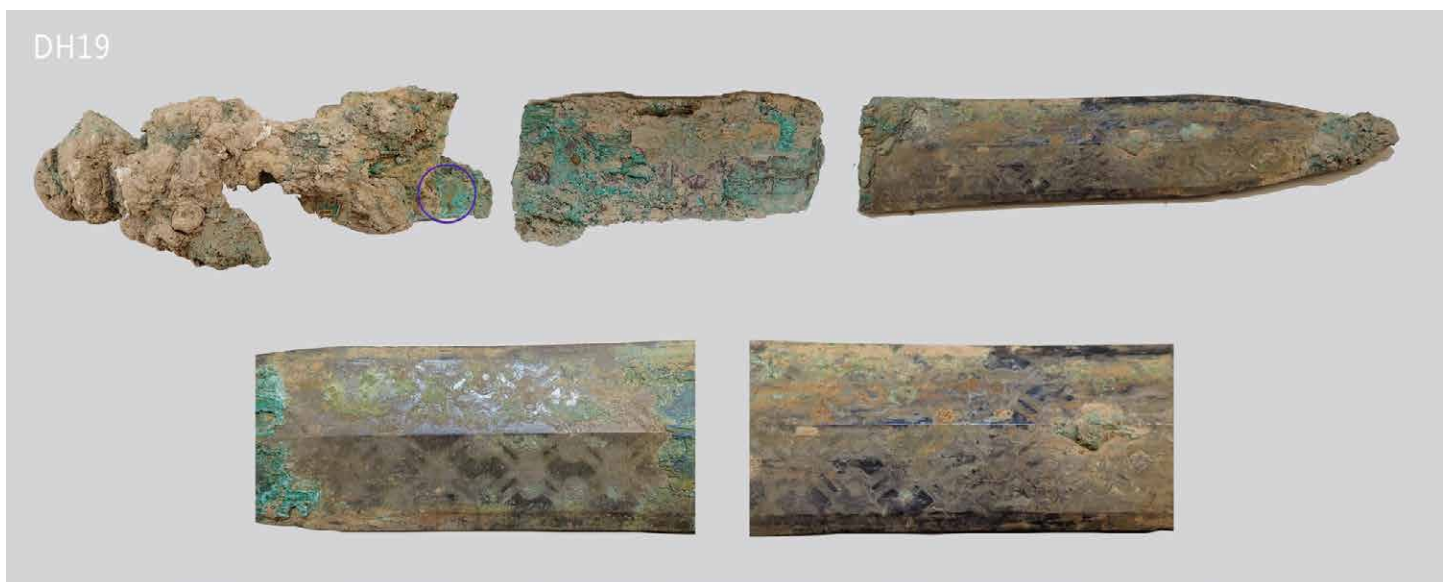
studies have shown this layer, called a delta phase, can increase hardness and improve resistance to decay.

Form and Function

Adding tin to bronze increases hardness, but it also introduces one serious limitation: too much tin would make the blade less flexible and more prone to snapping. Weng Cheong Lam, an Assistant Professor of Archaeology at the Chinese University of Hong Kong, likens hardness and flexibility to “two ends of a spectrum.” For instance, a pencil is hard but not flexible, breaking easily when under pressure. A sword, Lam says, requires the best of both worlds.

Ancient swordsmiths therefore faced the challenge of how to balance these competing goals. Their solution, as the study explains, was to add a delta phase veneer to only the sword surface. This innovation hardened the surface while retaining the core’s flexibility.

To form this veneer, swordsmiths had to utilize a specific combination of metals and follow precise steps even modern metallurgists can struggle to recreate. But ancient swordsmiths showed incredible mastery of these methods. The study reveals “precisely what they’re doing and in what sequence—the chain of steps in metal production,” says Rowan Flad, a Professor of



Bronze sword analyzed in this study (photo credit: Wang et al. (2025), Figure 1).

Archaeology at Harvard University.

The Chain of Steps

Bronze is an alloy, or mixture of metals, of primarily copper and tin. Ancient smiths formed the delta phase by applying a tin- and iron-rich paste to a sword surface, which they engraved in a rhombic pattern. Upon heating the blade, the tin atoms diffuse into the copper-rich bronze and partially evaporate. This evaporation adjusts the tin concentration to the exact level needed for the delta phase to form. Finally, the smiths honed and polished the veneer to just 1–2 micrometers, or about one-fiftieth the width of a human hair.

This delta phase manifests as dark rhombic patterns crisscrossing the sword's surface. Flad calls this feature a reflection of the “intentionality of decoration for functional purposes.”

Swordsmiths developed their techniques over centuries of experimentation, striving for both functional performance and aesthetics. Master swordsmiths passed down their methods, training apprentices to create effective weaponry.

Even today, the swords represent remarkable technological sophistication. “I still cannot understand how the bronze smith understood this mechanism 2,500 years ago,” Lam adds, referring to the method behind forming the veneer. “At the end, I was amazed by the way that this process was eventually achieved.”

You can read the original study here:

Wang, Y., Dai, Q., Liu, Y. et al. The hardness-enhanced technique on the blade of bronze swords in the Wu and Yue States, China. *Archaeol Anthropol Sci* 17, 195 (2025). <https://doi.org/10.1007/s12520-025-02303-6>

How Your Brain Might Trick You During Endurance Activities

CHARLES WANG

You creep behind the ferns and trees surrounding a small pond. A half-eaten hippopotamus carcass lies at the edge of the water. Carefully glancing for crocodiles, you approach the carcass, eager to finally feast after spending hours scrounging the dry woodlands for food. Using a stone scraper, you tear away the

meat connected to the ribs and limb bones. The stone screeches as it digs into the bones' outer layers, leaving cut marks. After satiating your hunger, you collect some extra meat for your camp, and begin the arduous process of navigating your way back—walking for hours while tracing your own tracks and keeping a watchful eye for other predators.

Hopefully, the scene above is not too relatable, as it reflects the point of view of an early modern human living in northern Tanzania more than one million years ago. But it illustrates the mental and physical challenges our ancestors battled and poses a key question: what happens when you experience both simultaneously?

Increased mental burden combined with an endurance exercise activity may make you fatigue more quickly. Why this happens is unclear, but a new study reveals an interesting dynamic: thinking hard while exercising may make a long workout feel tougher than it actually is. But there may be ways to mitigate this effect, evolved long ago in our hunter-gatherer ancestors.

The ability to combine endurance exercise with cognitive demands likely aided early modern humans' survival. Starting from around two million years ago, our ancestors began roaming farther for their food: they took up lifestyles as hunter-gatherers who traveled far distances daily to bring food back to camp. Modern hunter-gatherers in the Kalahari Desert can sometimes spend hours or days tracking down a single kudu, traveling distances of up to 35 kilometers. Often, tracking requires immense mental effort. A prey animal may throw the hunters off by circling back on its previous path or rejoining a herd. If the hunt is successful, the hunters still need to navigate back to their main camp. As a result, hunting and gathering in challenging environments requires not only physical endurance, but also proficiency in certain cognitive skills.

Nowadays, despite most people acquiring their food from grocery stores rather than hunting and gathering, some activities may still challenge both your mental and physical capabilities. Recreational hunting, ultra-marathons, or a 36-minute boxing match are just a few examples. Discovering how our ancestors were able to effectively acquire food, despite the increased cognitive burden that hunting and gathering imposes, may change how we think about improving physical endurance. To investigate this dynamic further, we

need to understand how our bodies react to challenging mental stimulation while engaging in extended exercise.

Scientists have previously demonstrated that mentally demanding tasks prior to endurance exercise can accelerate fatigue. But not much is known about how our bodies react to increased cognitive engagement during prolonged exercise.

To solve this mystery, Daniel Aslan, a recent PhD out of the Human and Evolutionary Biology department at the University of Southern California, and his research team put 30 healthy adults through two sessions of treadmill walking: exercise-only and exercise-cognitive. Aslan's team expected to find that combining cognitive demand with exercise leads to an increase in perceived effort. They also predicted that individuals with enhanced cognitive abilities in areas necessary for a hunting and gathering lifestyle would not experience the same effects.

For the exercise-only session, the participants were instructed to walk for thirty minutes or until they could no longer continue. For the exercise-cognitive session, the participants engaged in two problem-solving tasks while walking on the treadmill. The first was memory-based: random numbers appeared sequentially on a

monitor, and participants were asked to signal whenever the current number matched the number that was displayed two numbers ago. During the second task, participants had to signal whenever a word for a certain color and the font color matched.

To determine levels of fatigue, the researchers collected the participants' rating of perceived exertion (RPE)—a number between 6 (no effort) and 20 (maximal effort)—that the participants provided every two minutes. However, to test their hypothesis that concentrating while exercising only increases perceived effort, the researchers needed to know how hard the participants were actually working. Taking measurements of oxygen inhaled and carbon dioxide exhaled allowed the researchers to determine how much energy the participants were really using compared to their RPE.

During the exercise-cognitive session, the participants reported higher RPEs. Paradoxically, their actual energy expenditure during this condition was lower compared to the exercise-only session. For some reason, the participants thought they were working harder than they actually were.

“We don't know why this happened, but our brain takes in all these different sensory inputs and then interprets how hard we feel like we are working. Perhaps



In one session, participants ran on a treadmill while completing challenging mental tasks.

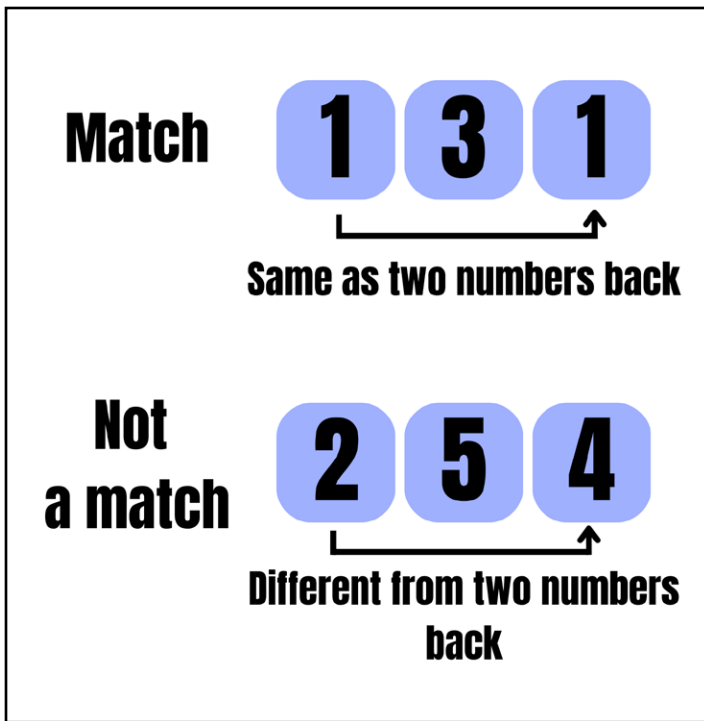


Illustration of the first cognitive task.

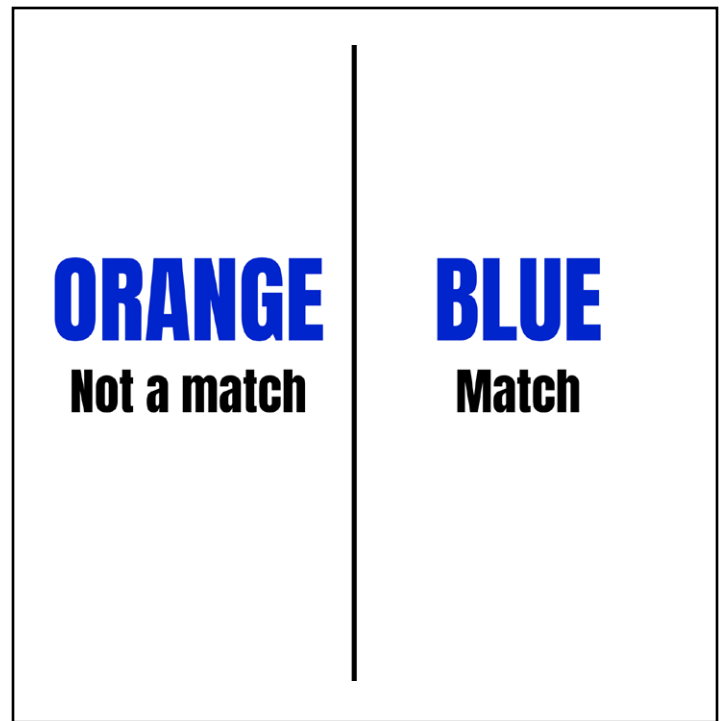


Illustration of the second cognitive task.

adding cognitive stimulation during activity is just another input that shifts perception of effort,” says Aslan. At the same time, not all participants reported a higher RPE during the exercise-cognitive session. The day before the exercise trials, the participants completed a suite of cognitive exams that assessed their memory, visuospatial skills, and problem-solving. These specific cognitive abilities are vital for activities like hunting and gathering—and endurance sports or long, physically demanding jobs. The research team noticed that those who performed well on the initial exam did not report an increased RPE. These participants did not perceive the exercise-cognitive session to be any more tiring than the exercise-only session.

This finding suggests that at some point in our evolutionary history, our bodies developed strategies to mitigate perceived exhaustion when modern humans started hunting over further distances. How our bodies manage this is unknown, but this new discovery inspires researchers to design interventions for anyone to optimize their endurance by leveraging mental as well as physical workouts.

Daniel Lieberman, a paleoanthropologist at Harvard University who did not contribute to the study, says “We tend to think that physical activities are distinct and separate from cognitive activities such as thinking. But they are not. And experiments such as this that

look at how exercise and cognition interact are both fascinating and important for mind-body connections.”

Prior research has shown how physical activity can improve brain function, but little is known about the inverse: how cognitive abilities can improve endurance. It may be just as important for an athlete’s stamina to strengthen mental resilience as it is to improve cardiovascular fitness.

So, the next time you go on a run or walk, whether that be on a treadmill or on a hiking trail, consider doing a Sudoku or Wordle or finding your way without your phone. As Aslan emphasizes, “Instead of training endurance and learning separately, these results are a first step in trying to motivate people to stay cognitively engaged during physical activity, which may have important health benefits for your brain and body.” After all, as Daniel Lieberman concludes, “we evolved to think and move at the same time.” ■

You can read the original study here:

D.H. Aslan, L. Fenton, S.D. Han, M.H.C. Lai, D.M. Luong, T. Markarian, A. Seshadri, G.E. Alexander, & D.A. Raichlen, Cognitive correlates of human endurance, *Proc. Natl. Acad. Sci. U.S.A.* 122 (47) e2512055122, <https://doi.org/10.1073/pnas.2512055122> (2025).

In memory of Annetta Alexandridis (1968–2026), whose exploratory spirit, scholarship, and generosity have shaped this project and will continue to resonate deeply among her friends, students, and colleagues



Figure 1. View of the hills west of Sardis that contain numerous rock-carved chamber tombs. The Bin Tepe tumuli are faintly visible in the background, and the city is to the right.

TRACING TOMBS AROUND SARDIS

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Scholarship on burial traditions in ancient Anatolia has flourished in recent decades, highlighting cross-regional connections as well as local customs, socio-historical circumstances, and topographies that affected how populations dealt with their dead. The site of Sardis in western Türkiye lacks a systematic exploration of its funerary landscape that captures its long history across the first millennium BCE and the first millennium CE, despite—or perhaps because of—the prominence of the tumuli in the Bin Tepe (or “Thousand Mounds”) cemetery to the north of the city. Besides the burial mounds at Bin Tepe, it seems that

Lydian- and Persian-period tombs (mostly rock-cut chamber tombs) were situated in the hills around Sardis (Fig. 1). Burial practices changed in Hellenistic and Roman times, and new tombs were located in the plain, along major roads. However, frequent reuse complicates this picture. Further investigation is required to understand how the tombs and their locations relate to the social and administrative realities of the city and its population, what care for the dead might have looked like, and how it changed over time. To begin to answer such questions, we embarked on a survey that has lasted three campaigns so far, from

2022 to 2024. In addition to the authors, Okan Emre Güney of Aydın Adnan Menderes University (Türkiye) has been a key member of the survey team; undergraduate interns have joined for shorter periods of time. The cemeteries of Sardis extend over a much larger area than the city itself, perhaps up to 400–500 hectares (or roughly fifty times the size of Harvard Yard), from the hills south of the city well into the plain to its north. Threats to Sardis' tombscape posed by erosion, agriculture, forestation, urbanization, mining, looting, and wildfires compound the challenge. We hope that the site's recent inscription into the list of UNESCO World Heritage sites will help mitigate some of these factors. Still, the landscape and its archaeological remains have been dramatically altered, posing questions such as: What have we lost? And how do we recognize what remains?

Early explorers of Sardis focused on the conspicuous mounds at Bin Tepe. The first large-scale excavations at the site, led by Howard Crosby Butler of Princeton University from 1910 to 1914 and in 1922, cleared over 1,100 tombs in the hills to the west and south of the city, mostly under the supervision of William Hepburn Buckler. The tombs were attractive because they yielded objects for museum collections. Due to Butler's untimely death in 1922, the findings are published only in a summary fashion, although with some good plans and sections of individual chamber tombs, and with pertinent observations as to their typology and the geology of their location. Preserved finds are housed in the Istanbul and Izmir Archaeological Museums as well as the Metropolitan Museum in New York. Other finds and documentation vanished in the turbulence of the Greco-Turkish War of 1919 to 1922.

In a way, the tombs excavated in the early 20th century are the starting point of the current Sardis expedition. George Henry Chase, professor of archaeology at Harvard, was at Sardis in 1914 to study the pottery from the tombs (his note cards survive), a task that he eventually passed on to a junior fellow at the university, George M.A. Hanfmann. Hanfmann, who would go on to become professor and curator here at Harvard, was determined to find what had eluded Butler, namely the Lydian city itself. Partnering with Cornell University and ASOR (then the American Schools of Oriental Research), he started the Archaeological Exploration of Sardis in 1958.



Figure 2. Chamber tombs carved into a cliff forming part of the Great Necropolis.

The ultimate goal of our project is to publish all known finds of the graves explored by the Butler expedition and to contextualize them to the greatest extent possible. Integrating legacy data with recent research is essential to addressing questions that are difficult to answer based on empty tombs alone: What is their date? For how long were they in use? Which tomb types are typical for which periods or areas? What was the social status of the people buried here? Can we tell their ethnic or cultural affiliations?

If the Butler expedition created a map of the tombs it explored, this no longer exists. The first task, then, is to map the location of the tombs that remain visible. Our survey has been conducted by a small team for between two and four weeks each season—and in as systematic a manner as possible. Steep cliffs, slippery slopes, and dense (spiky!) vegetation make it impossible to impose any kind of grid. Tombs and other features are recorded with a GNSS (Global Navigation Satellite System) point. To the extent they are accessible, they are photographed and their shape, approximate size, and state of preservation are documented. With a few exceptions, finds are not collected. Chamber tombs carved into the upper parts of cliffs are beyond reach and need to be explored by drone (Fig. 2).

So far, the team has recorded some 460 tombs to the west, south, and east of Sardis, from Lydian- and Persian-period rock-carved chamber tombs and bathtub-shaped sarcophagi of limestone to Roman-period hypogaea (Fig. 3). Identification of holes in the ground is not always easy. With time, we have become more skilled at distinguishing tomb-related cavities from pits for planting olive trees and the trenches dug by

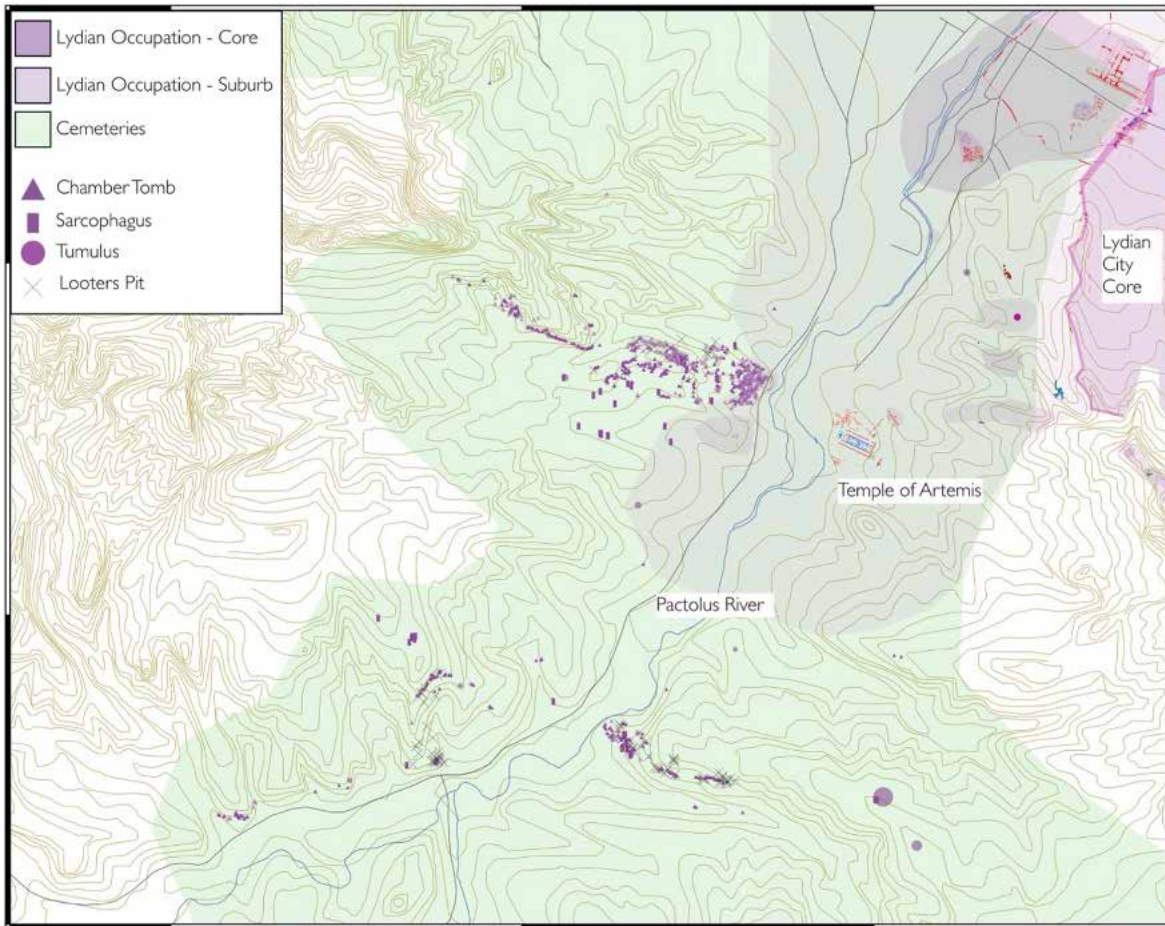


Figure 3. Map of tombs recorded so far to the southwest of the city. Map courtesy of Nicholas Cahill, ©Archaeological Exploration of Sardis

looters. Conversations with farmers and other locals have guided us to previously undocumented sites and provided oral histories and insight into local traditions and toponyms that have enriched our understanding of the landscape. Ironically, it is often through the destructive activities of looters that we are made aware of tombs buried by thick layers of erosion.



Figure 4. Tomb cavities on the east-facing slope of the Great Necropolis, with the Artemis Temple in the background.

Closest to and clearly connected with the city itself are the rows of rock-cut chamber tombs in what the Butler team called the Great Necropolis, across the Pactolus River from the Artemis Temple (Fig. 4). It appears that many were created in the Lydian and Persian periods but continued to receive burials in Hellenistic times. Other clusters of chamber tombs are located further south and southwest and might be associated with smaller settlements in the city's surroundings. Does the orientation of the tombs tell us something about their owners' affiliation and status, or is it simply owed to the geography, that is, the availability of suitable cliffs? The evidence suggests that there are multiple factors in play. One group of tombs seems to have formed its own micro location, resembling the semicircular space of a theater.

The majority of the rock-carved tombs have one or two rooms and are equipped with one to three rock-carved "couches" per room. Ceilings tend to be double pitched (Fig. 5). At times, a longer dromos (entrance passage) is preserved. Some tombs feature sockets for door



Figure 5. This rock-carved tomb has two chambers lined with couches.



Figure 6. Okan Emre Güney and Annetta Alexandridis documenting sarcophagus fragments in a pit dug by looters.

bolts or to support door slabs of stone. Some chamber tombs were merged to create larger complexes; there are also what appear to be unintended mergers, when tombs were dug too close to each other or from opposite sides of a narrow ridge. Tomb sizes and features vary somewhat by area, as does the rock into which they are carved. The cliffs of the Great Necropolis are of conglomerate. The whitish limestone of the South Necropolis preserves moldings decorating the tomb entrances, while the soft and sandy rocks of the South-west Necropolis have weathered, sometimes in dramatic fashion.

The current state of preservation makes it difficult to imagine the original appearance of the chamber tomb cemeteries. A tomb with stairs and flanking stelae, re-excavated and re-buried in 1984, and other

limestone and marble stele and door slab fragments demonstrate that there was some degree of monumentalization. There must have been paths and stairways facilitating access. Hauling massive limestone sarcophagi up steep hills and cliffs would have required significant logistics and labor. Such sarcophagi were sunk into the floor of chamber tombs or interred by themselves (Fig. 6). Several schist slabs were also recorded during the survey; these may have served as covers for cist graves.

The surviving documentation precludes matching the Butler team's notes and artifact inventories to surviving tombs on the ground, with a few exceptions. So far, we have identified three of the tombs excavated in the early 20th century, including two in the South Necropolis: one with a large dromos and single chamber (Fig.

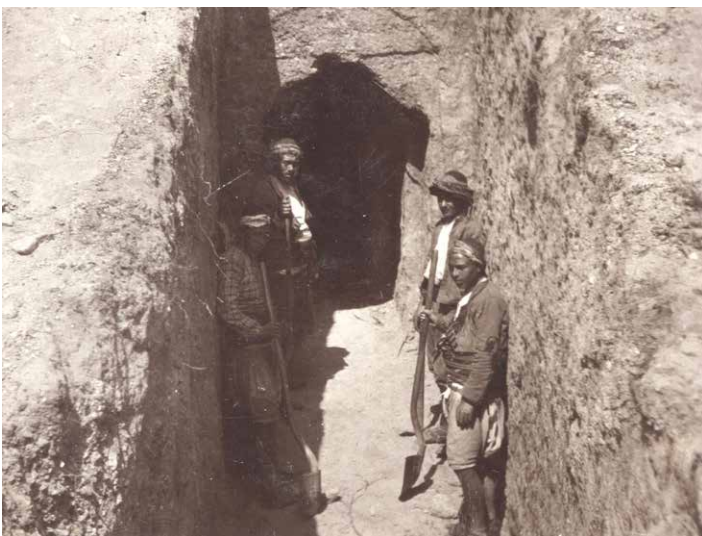


Figure 7. In the dromos of a chamber tomb in the South Necropolis, during its excavation in 1913 (left) and in 2022 (right).

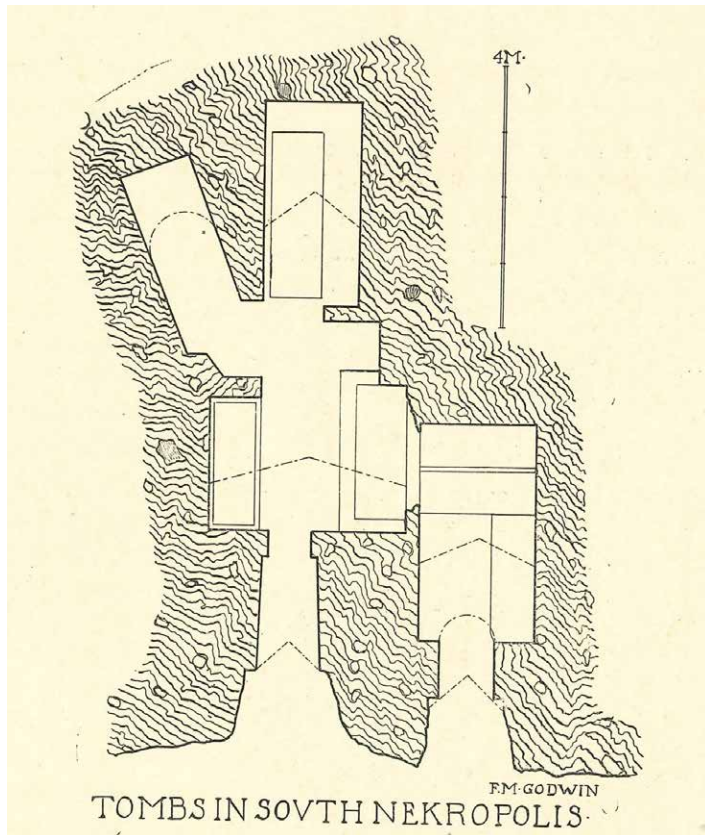


Figure 8 a–b The plan of Tomb S1 published in Butler’s 1922 report and a view of the tomb’s interior a century later.

7a–b) and a double tomb with a complex plan (Fig. 8a–b). When the latter was excavated in 1913, a small ivory head with large earrings caused much excitement (Istanbul Archaeological Museums, 4657). In 2022 and 2023, our survey team came upon two freshly looted chamber tombs where cleaning and limited excavation were carried out. One tomb still contained two limestone “bathtub” sarcophagi. The local and imported pottery fragments retrieved from the disturbed soil date from the mid-fifth century BCE into the Hellenistic period, suggesting the tomb remained in use for centuries. The other tomb held elongated, rectangular terracotta sarcophagi with lids. With much chaff and friable, such terracotta sarcophagi received little mention in the Butler reports but must have been ubiquitous. Part of a sarcophagus left behind by the looters contained small gold and glass beads, indicating that at Sardis, even those buried in a humble container were not poor. Even in their highly incomplete state, the cemeteries surrounding Sardis yield precious evidence for the lives of the ancient Lydians.

Acknowledgements

We wish to express special thanks to the Turkish Ministry of Culture and Tourism. We also extend our
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sincere thanks to Nicholas Cahill, director, and Sardis Expedition staff and team members Bahadır Yıldırım, Ümit Güngör, Okan Emre Güney, Catherine S. Alexander, Jennifer Kim, Caitlin Gallupe, Süheyla Şimşek, İzel Güler, Paul Tamburro (‘22), Alperen Akça, Mustafa Akça, and Teoman Yalçınkaya. ■

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THE FLOUR MILL, THE ABANDONED GUERRILLA BASE, AND THE SOLDIER: ARCHAEOLOGY OF A SPANISH CIVIL WAR RUIN

BY PABLO GUTIÉRREZ DE LEÓN
ASPR Junior Fellow

Unlike the USA, contemporary archaeology was a relatively new topic in Spain during the early 2000s. I remember how some professors considered any research linked to the Spanish Civil War something more related to CSI rather than archaeology. In that context, some pioneers working in commercial archaeology like Jorge Morín de Pablos, Marta Escolà, Amalia Pérez-Juez and Juan Sanguino excavated the first sites using archaeological methodology, a reminder that changes and innovation do not always come from academic bureaus. One of these people that disregard any iron curtain between archaeology, history and the study of the Spanish Civil War (1936-1939) is my dear friend Luis A. Ruiz Casero. Luis called me a cold November morning of 2019 and told me that two colleagues, Alan E. Herchhoren and Julian Dueñas, had discovered a guerrilla base of the Spanish Republican Army mentioned in a series of archival documents and the diary

of a Soviet female combatant. According to them, the base was still standing inside an old mill between the towns of Guadalajara and Alcalá de Henares. Days later, Luis, our friend Sara, and I took my car and rushed to what seemed like a one-in-a-million opportunity.

It was early in the morning of a grey 11th of November when we took a detour through an unpaved road until reaching a track blocked by a fallen tree. Once we crossed, we saw the old husk of an abandoned mill with its large windows. The original three-story building dated back to the end of the 19th century and the beginning of the 20th. As one of the doors on the façade was unreachable, we entered through a half-opened sliding metal door. The whole estate was bought in 1947 by a bullfighter nicknamed “the student” who renewed the complex adding the building we just entered. The place was full of broken furniture,



Figure 1. The old façade of Moyarniz.

glass and discarded tools. Soon after that we crossed the boundary to the original mudbrick building, entering an enormous room of more than 40 m in length built over a canal. Like chandeliers, the rusty machinery hung from the ceiling. At first, we did not pay much attention to the walls and began to explore the different rooms on the ground floor.

The documents from the Ávila General Military Archive by Julián were a summary written after the interrogation of guerrilleros in 1938 and 1939, when they disclosed the location of an ammunition depot belonging to the 300th Guerrilla Division base inside a mill called Moyarniz. After ascending the wooden stairs to the first floor, we reached an enormous columned hall with a small dark space in its center. Some columns were covered in old posters announcing bullfighting



Figure 3. Photo of the little dark room inside the columned room.



Figure 2. Ground floor with machinery.

shows and a wall was partially covered by marks using stencils with the brand “Moyarniz flour factory”. We were in the right place but artefacts from the war like shell cases were yet to be found. What happened to the base? Maybe the guerrillas packed everything and left in the spring of 1939? We kept searching. From this area, we entered the room that we first tried to access. Suddenly, everything we were looking for unfolded in front of us. The plaster walls were covered in political paintings from the time the guerrillas occupied the mill. A big red star of the Republican Army was present as well as the less-known anvil with a book, inkwell and writing feather of the Spanish Socialist Party, the shield with hammer and sickle of the Spanish Communist Party, a black and red flag of the anarchist CNT-FAI, and a red revolutionary flag. Furthermore, another five-point star with the hammer and sickle, and a

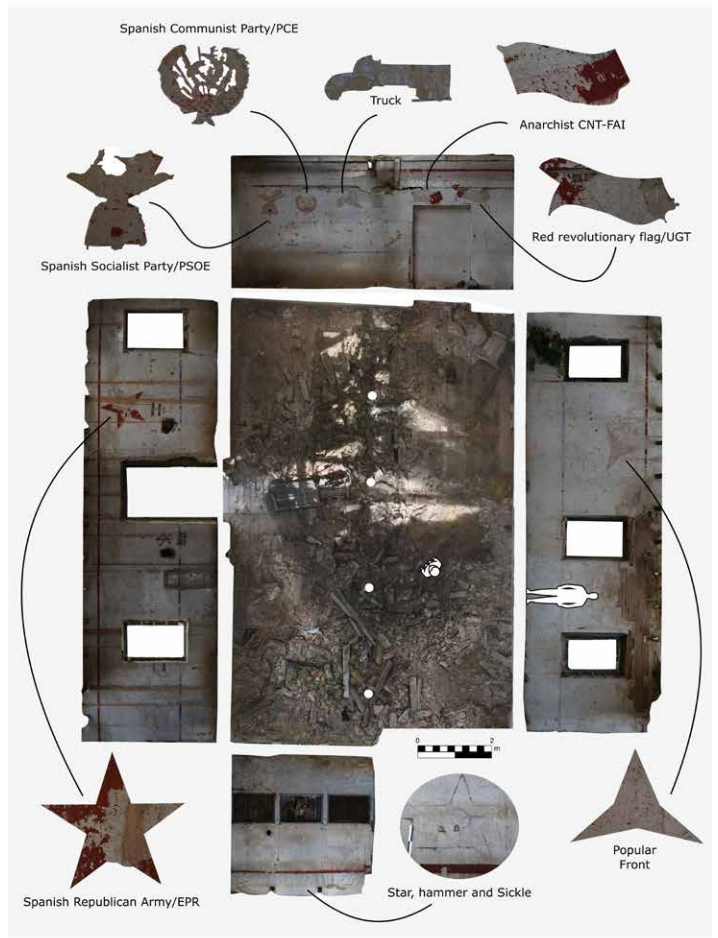
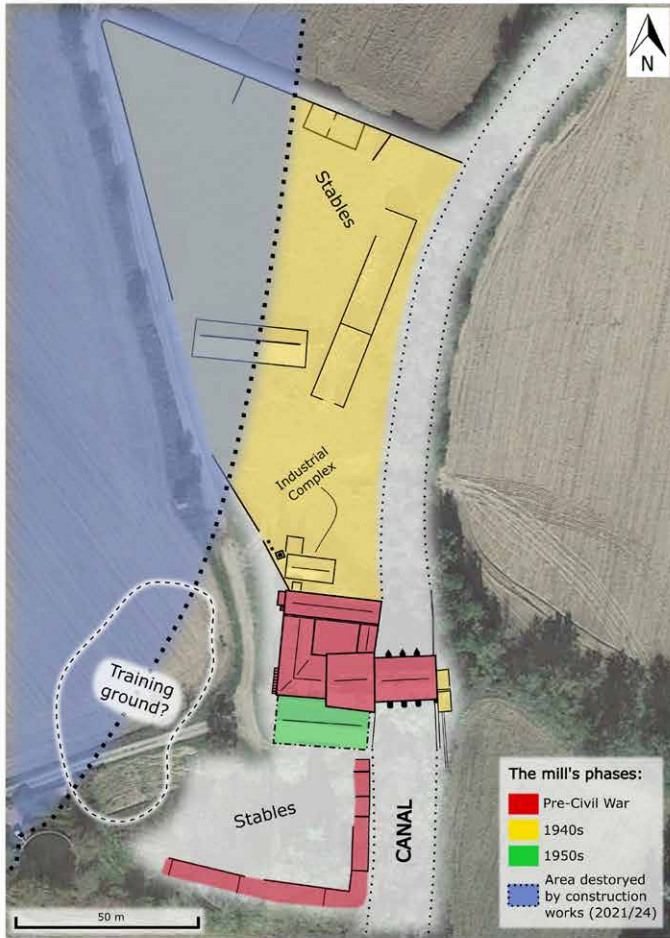


Figure 5. 3D model of the main room with political symbols.

three-point star of the Popular Front electoral coalition were present. Interestingly, some of the symbols were deliberately picked, leaving them partially erased. We hit the jackpot!

Since that moment, we paid more attention to the walls and the numerous writings on them. Some were names of visitors, numbers and sums. We took a look at the second floor and found out how precarious it was, with a big gaping hole in the ceiling open to the sky and partially collapsed floor. Instead of exploring it, we continued surveying the lower floors. A storm was approaching, so we proceeded to take as many pictures as we could of the symbols and the graffiti inside the dark space in the hall. Once on the ground floor again, we entered a little side room. Using our lights, we discovered a drawing of an artillery shell and a graffiti saying "105-22 shell". If it was not clear enough that we had stumbled upon the ammo depot mentioned in the documents, another graffiti stating "Powder room" appeared near the entrance. Finally, we encountered the silhouette of an officer or commissar with its distinctive cap.

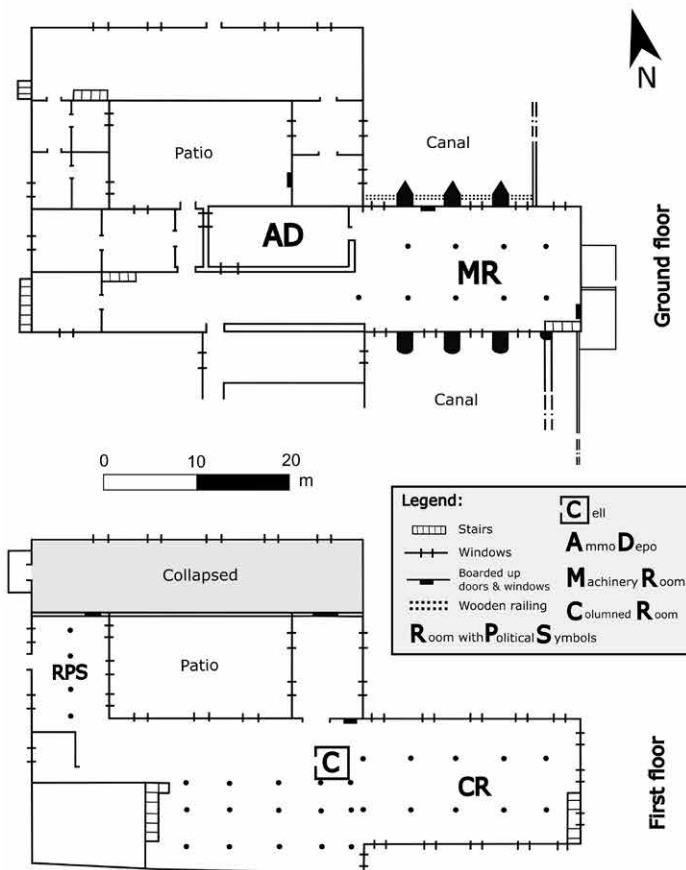


Figure 4. Site plans.



Figure 6. Window and an outlined officer or commissar.

Emotions were running high, and as soon as I arrived home, I began examining the images using the DStretch plugin for ImageJ. Developed by Jon Harman, it is widely used in rock art studies, allowing researchers to enhance colors that otherwise will remain hidden. The graffiti turned more nitid, but the biggest shock came when I filtered the images from the dark little space. Suddenly, the next sentence appeared: “Comrades, don’t be undisciplined so that you don’t get caught in this damned cell” and underneath another message specifying that two “comrades” called Rosendo and Giraldo were held here in 1938 for fighting each other. A cube sketched with text stating that this was a cell appeared as well as a drawing of a guerrillero holding a rifle, a flag and wearing the traditional Spanish cap. One of the inmates, Giraldo, wrote that he was arrested for 8 days. When applying decorrelation stretching to the outside walls of the cell, an arrow with the phrase “take a good look” popped out alongside hurrahs to different labor unions. Apparently, the cell was turned into an educational space to show the consequences of insubordination. The guerrilleros of the XIV Army Corp were no riffraff. They were very politicized special-operations units that focused on infiltration, reconnaissance and sabotage within the Francoist territory. They were characterized by an iron

discipline and insubordination was punished by officers and commissars. Nevertheless, not all felt happy about that situation and an “hurray to the commissar” written outside of the cell was deliberately crossed out. After the first visit, we returned to the mill several times fearing the sudden disappearance of such a unique context. The structure was steadily rotting and on our third visit the old machinery had disappeared completely, stolen by scrap dealers that nearly burned down some wooden beams and destroyed some points.

At that time, we were negotiating possible funding from the town hall to perform an archaeological intervention, without any positive outcome. We let them know that we were still documenting the mill. To document it properly, we drew methodological inspiration from studies of rock art sites. We began by creating plans and 3D models of the cell (<https://skfb.ly/6QWqn>) and the room with political symbols, as well as taking detailed pictures with scales until we managed to record all Spanish Civil War symbols and some of the previous graffiti. During our visits, we met dozens of people, even a carpenter collecting wood to make furniture, that told us stories about the mill. Alan, whose great-uncle Mariano was a guerrillero, accompanied us on one of our visits. Further explorations of the side rooms allowed us to discover a door with a painted red star and a room with two gunsling-

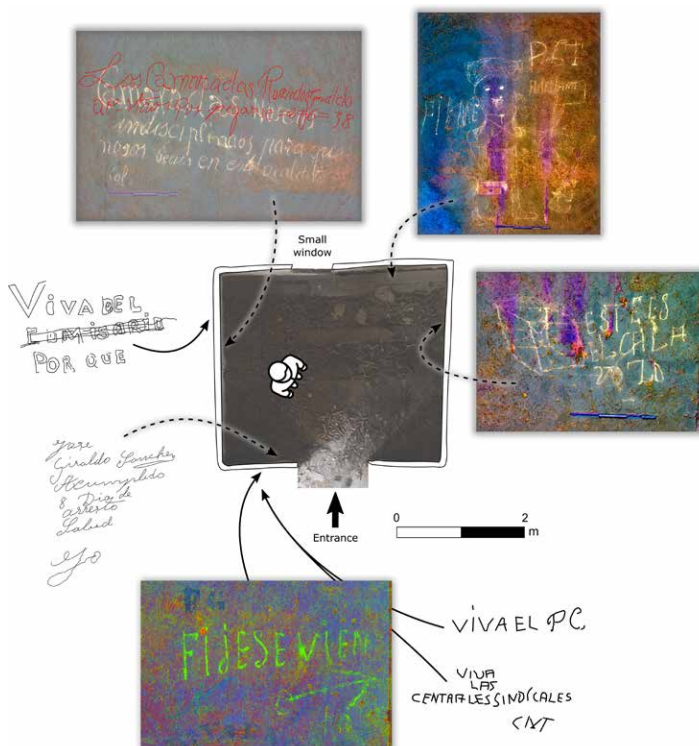


Figure 7. Plan of the cell with some of the graffiti and images processed with DStretch.



Figure 8. An old Benito Juberías (left) and his Velo-dog revolver and glasses case (right).

ers with charro hats. One had the name “Emiliano Zapata” written on. In fact, we know that during the war, the guerrilla units edited journals named after historical guerrilla leaders. Another day we finally risked exploring the second floor. Inside a side room we encountered a “156” in outlined numbers. Archival documents indicate that there was in fact a 156 brigade quartered in Moyarniz. An outlined projection screen also appeared in one of the rooms. The base was fully equipped, even with a cinema. Additionally, we surveyed the outskirts of the mill and found a discarded Pedro Domecq Jerez wine glass bottle and remains of an ammunition box. However, the mill had an even bigger surprise for us. While checking the lists of members belonging to the 156 Brigade, we discovered a soldier named “Benito Juberías Bartolomé”, grandfather of the person who writes these words. It was a big surprise, since he did not talk about the war. His sister Simona, a teenager, was sent to a prison in northern Spain where she died. After the Republican defeat, he was subjected to forced labor by the Francoist dictatorship and put through continuous beatings that left him half deaf. The second big reveal came when my uncle, Ángel, showed me a glasses case containing a Velo-dog revolver that belonged to my grandfather. Originally a

personal defense weapon against angry dogs by postmen in Europe, it was extremely easy to conceal. As soon as the revolver came to light, my grandmother, Elisa, and her sons began to remember that there was always whispering about Benito being “very communist” and that he was spying nearby.

It is amazing how objects and testimonies allow our minds to connect and empathize with the people long gone, people whom we have never met. This characteristic is emphasized with materials from recent contexts and events closely related to warfare, repression and suffering. Sadly, we did not manage to secure funding for a project inside the mill, although we deposited the door with a painted red star in the regional museum and gathered enough data that will soon be published in the *Journal of Contemporary Archaeology* titled: *An Invisible Front. Towards an Archaeology of Special Operations During the Spanish Civil War*. Now, the only thing left for us is to imagine the words and stories that were shared inside the walls of Moyarniz. Stories about warfare, loss, love, family and death. Their tellers departed a long time ago and only the walls speak to us now. How long until they too get buried under the rubble and time? ■

A CENTURY OF ASPR: SUPPORTING RESEARCH AND COMMUNITY IN OLD WORLD PREHISTORY

CLARA EVE ALEXANDER
ASPR Staff Assistant

A century after publishing its first research bulletin, the American School of Prehistoric Research (ASPR) continues to shape the study of Old World prehistory at Harvard and beyond. Housed within the Peabody Museum of Archaeology and Ethnology, ASPR – led by Rowan Flad and Daniel Lieberman – supports research and training through postdoctoral fellowships, faculty and laboratory collaborations, and partnerships that expand access to fieldwork. This year’s activities illustrate the breadth of our mission, encompassing student field programs, new research initiatives, science communication, and efforts to make ASPR’s publications widely accessible.

Field School Support

This past year, ASPR expanded field school access for the next generation of scholars in Old World prehistory. We partnered with the Archaeological Institute of America and The Leakey Foundation, both of which offer scholarship programs that help students cover field school tuition. Through these collaborations, ASPR helped fund participation for 14 students across seven field schools in Europe and Africa (Figure 1). The field schools, all involving aspects of the study of Old World prehistory, covered a wide range of research topics and archaeological contexts. More details can be found below, and on our website: <https://sites.harvard.edu/aspr/grants-and-fellowships/>

Three of the seven field schools are located in the African continent. To support these field schools, we partnered with the Leakey Foundation’s Joan Cogswell Donner Field School Scholarship. Together, the three programs cover a wide range of research topics: In South Africa, for example, the Paleoarchaeological Fieldwork at Boomplaas Cave focuses on tracking dietary and technological changes across the Middle Stone Age to Later Stone Age (MSA-LSA) transition through the analysis of lithics and macrofaunal remains. The Gorongosa Interdisciplinary Training in Human Evolution field school, based in Mozambique,

combines the study of Miocene fossil sites and Pleistocene caves with primatology focused on the behavioral adaptations of baboons and vervet monkeys. Lastly, The Koobi Fora Research & Training Program is a six-week intensive program designed to build technical



Figure 1. ASPR supported field schools focusing on Old World prehistory across Europe, Asia, and Africa via partnerships with the Archaeological Institute of America and The Leakey Foundation.

knowledge in paleoanthropology, geology, and paleontology at the Mpala Research Centre and the Turkana Basin. Although varied in topic and approach, all three programs contribute to a deeper understanding of human origins in Africa.

Through our partnership with the Archaeological Institute of America, ASPR helped support five students participating in their first archaeological fieldwork experiences. Two students joined Archaeotek's Roman Villa Excavation in Transylvania (Romania), where research focuses on the transition between the Iron Age and Roman Imperial periods in Dacia. In addition to excavating the Roman villa itself, students encountered prehistoric material dating to the Iron Age in and around the site. Other field schools we supported include the Astypalaia Bioarchaeology field school in Greece, which focuses on the recovery and study of burials dating from about 750 BCE to 100 CE; the Valle Gianni field school in central Italy, which exposes students to archaeological remains dating back to the Neolithic and has recently yielded important Early Iron Age discoveries; and the Kalavassos and Maroni Built Environments (KAMBE) Project in Cyprus, which explores urban landscapes and social change in the Late Bronze Age (1650–1100 BCE). Together, these experiences provided students with hands-on exposure to a wide range of archaeological contexts while laying a foundation for future research in Old World prehistory.

Junior Fellowship

ASPR Junior Fellowships are highly competitive positions designed to support recent Ph.D. recipients pursuing independent research in Old World prehistory. The program brings emerging scholars to Harvard to advance original research while contributing to the intellectual life of the broader archaeological community. We currently have four outstanding fellows in residence, each conducting innovative research that spans different regions, time periods, and methodological approaches.

Kayla Worthey, Ph.D. (University of Arizona, 2024)

Kayla investigates patterns of vegetation change during humid periods in the Sahara and neighboring regions to better understand human mobility during the Middle and Later Stone Ages. This year, she travelled to Morocco twice: first to collect sediment samples from Jorf El Hamam (a rockshelter site containing artifacts



Figure 2. Margot Louail conducting fieldwork in Ethiopia. Here, she is consolidating a fractured specimen to prevent further deterioration during extraction from the sediments.

from the Middle and Late Stone Ages), and later to extract enamel samples from ancient teeth in a laboratory in Rabat. While on campus, she analyzed plant specimens that will form part of a modern reference dataset used to interpret her sediment samples, which she looks forward to analyzing in the coming year.

Margot Louail, Ph.D. (University of Poitiers, 2022)

Margot studies the past ecologies of African suids and primates in the Pliocene and Pleistocene to explore the role of seasonality and feeding habits on their evolution. Her research mostly involves dental wear analysis and stable isotopes, and she is developing tools to better interpret isotopic variations in diet and to understand how suids and hominins responded to environmental dynamics in the Turkana Depression. This past year, her research took her to Ethiopia, where she was collecting fossil specimens in the Usno Formation (Figure 2) and then analyzing dental microwear in suid specimens at a nearby laboratory. Following several conferences in late summer and fall, she continued field and museum research in Ethiopia, Kenya, and France.

Pablo Gutiérrez de León, Ph.D. (Complutense University of Madrid, 2025)

Pablo studies the archaeology of nomadic pastoralism in the northeastern Horn of Africa. His work examines pastoral societies from the beginnings of animal husbandry to the present day, integrating themes such as trade in the Indian Ocean, Islamization, European colonization, and especially funerary architecture. His doctoral research involved mapping and classifying nearly 160,000 funerary structures, using GIS and geostatistical analysis to investigate patterns of territoriality, nomadic movement, and the social significance of monumental cairns. This summer, he will travel to Mauritania to conduct new research on pastoral landscapes.

Jingbo Li, Ph.D. (Stanford University, 2025)

Jingbo Li studies foodways and the development of complex societies in Neolithic and Bronze Age China, with a particular focus on how diet, alcohol production, and ritual practices shaped political authority and cultural identity. Trained in archaeobotany, residue chemistry, and isotopic analysis, she reconstructs ancient diets and fermentation practices through the study of food vessels, skeletal remains, and microfossils. In the winter of this year, Jingbo traveled to Stanford University and China for research collaboration and sample-related work connected to ongoing projects on ancient alcohol residues and Bronze Age food-

ways. She also participated in the Shanghai Archaeology Forum in December 2025, and later, she traveled to Stanford for collaborative research and presented her work at SAA in San Francisco (Figure 3).

Together, the 2024 and 2025 cohorts reflect the geographic and methodological breadth of contemporary Old World prehistoric research. ASPR looks forward to welcoming two new Junior Fellows in summer 2026: **Laura Hunter, Ph.D. (University of Chicago, 2026)** and **Zhuldyz Tashmanbetova, Ph.D. (Washington University, 2026)**. Laura's research project focuses on hominin hand evolution, while Zhuldyz's work concerns pastoralism in prehistory as it existed in the Eurasian steppe. In the coming year, ASPR will continue to support early-career scholars whose work is shaping the future of the field.

Science Communication Fellowship

Intended for students and early career scholars researching Old World prehistory, the ASPR Science Communication Fellowship – which took place in early 2025 – offered training and hands-on experience in public writing and multimedia communication. Participants attended one in-person workshop at Harvard University and several virtual trainings led by Dr. Bridget Alex, as well as other professional science

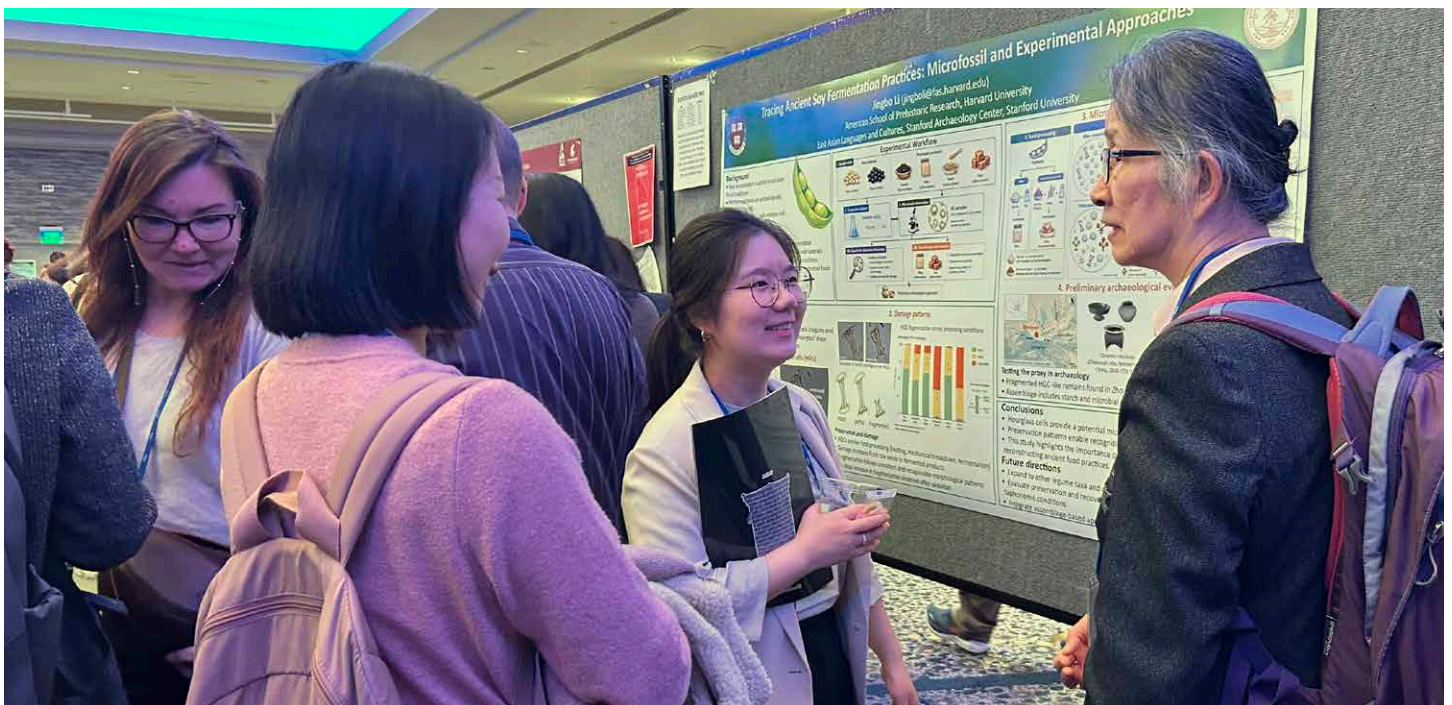


Figure 3. ASPR postdoctoral fellow Jingbo Li presents her research at the 2026 Society for American Archaeology meetings in San Francisco, CA



Figure 4. Students in the Harvard Summer Program in Kenya, joined by local Kenyan research partners, using mangrove environments to conduct surveys for group research projects.

writers and journalists who were guest speakers in the program. At the end of the program, the fellows published stories in SAPIENS magazine (www.sapiens.org). The stories range widely in scope – from intimate human-animal relationships in ancient graves to powerful women in early Tibetan societies to sweeping narratives of migration preserved in fossils – yet all are grounded in an engaging, public-friendly style that the fellows honed throughout their time in the program.

Harvard Summer Program in Kenya

ASPR is proud to support the Harvard Summer Program in Kenya (Figure 4), a new initiative that completed its second season this year. Led by Dr. Daniel Green, the six-week study abroad combines hands-on field research with molecular and computational tools to explore ecology, climate, community health, geology, and archaeology. This year's cohort had 16 students: 11 from Harvard, one from Queen's College, London, and four from Kenya.

Throughout the program, students live and study at world-class research centers, including the Turkana Basin Institute on the shores of Lake Turkana. This past year, they spent the first part of the program in Watamu, a coastal town north of Mombasa. Students in the program experience Kenya's staggering biodiver-

sity and interact with its rich culture, all while taking part in an expansive curriculum and learning from leading scholars in multiple disciplines. They use geological, ecological, and computational methods to analyze environmental change and the fossil record, while also participating in ongoing fieldwork that investigates the origins of our species. By integrating hands-on research with lab and data-driven techniques, the program offers a multidisciplinary perspective on how climate, landscapes, and human evolution are deeply interconnected. Furthermore, students experience Kenya in a way that goes far beyond what typical travel allows.

Digitization and Digital Resources

In 1926, exactly 100 years ago, ASPR published its first research bulletin. Between then and 2007, 49 additional volumes followed. Long housed in the Tozzer Library, these publications document the research priorities of their time and collectively form a valuable record of ASPR's scholarly contributions. This year, most of the bulletins were digitized and are now freely available on our website (sites.harvard.edu/aspr). In the "Research" page of our website, one can find summaries of a handful of our early research projects. We have also begun digitizing the ASPR Monograph Series, which currently includes 16 volumes spanning



Figure 5. ASPR Debate Group meeting.

both ASPR-sponsored research and works whose publication ASPR supported. Together, these efforts are creating an open, online archive that will serve as a lasting resource for future scholars.

In addition to the digitization of ASPR monographs and bulletins, we have been building a repository of short-form videos that highlight the research we support. Our videos are made with accessible, public-friendly language, and we hope that by sharing them, we can bring findings in Old World prehistory to a general audience. Our content can be found on our website under “Resources,” as well as on our Instagram and YouTube channels.

Social Events

This year, ASPR expanded its on-campus presence with multiple public talks and community events. One highlight was the free hybrid lecture “Homo sapiens Meets Neanderthals: The End of a World,” co-sponsored with the Harvard Museums of Science and Culture. Delivered by Dr. Jean-Jacques Hublin—Professor at the Collège de France and Emeritus Director at the Max Planck Institute for Evolutionary Anthropology—the lecture explored the period in Eurasia marked by the arrival of Homo sapiens and the eventual disappearance of Neanderthals. Drawing on recent advances in archaeology, paleogenetics, and palaeoproteomics, Hublin offered new perspectives on one of the most significant transitions in human evolutionary history. Beginning in fall 2025, ASPR also launched a debate group that met approximately twice each month

throughout the academic year (Figure 5). Open to anyone, the group discussed articles selected collectively by participants and explored topics including archaeological theory, materiality, landscape archaeology, and spatial archaeology. The discussions created an informal space for participants to discuss important publications and engage in critical conversation across different areas of archaeology and anthropology. In the 2026 spring semester, ASPR launched a Film Session series, which, like the debate group meetings, are open to the broader community. We met three times throughout the semester and watched and discussed a variety of films. Films selected for film sessions usually fall into the following categories: ethnographic films; movies about archaeology; drama films about anthropologists, indigenous peoples, human evolution, or ancient civilizations.

Conclusion

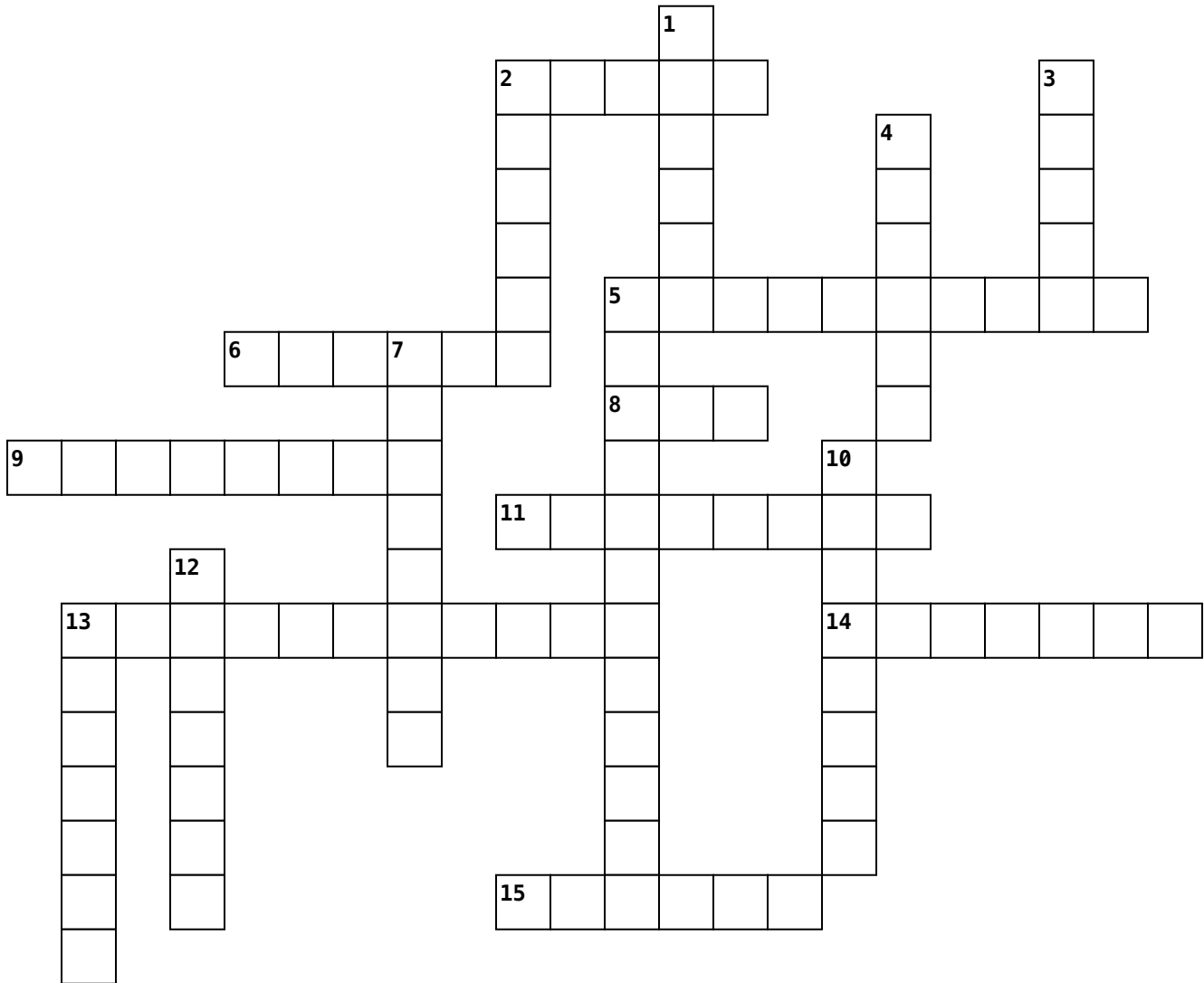
From field schools and international research programs to public outreach and archival preservation, ASPR’s activities this past year reflect a broad commitment to advancing the study of Old World prehistory. Whether supporting students entering the field for the first time, fostering innovative research at Harvard, or expanding access to archaeological knowledge for wider audiences, ASPR continues to invest in the future of our field. As the department enters its second century, we look forward to building on these efforts through new collaborations, research initiatives, and opportunities for scholarly exchange. ■

ARCHAEOLOGY CROSSWORD

IN SITU EDITORIAL STAFF

Christina Warinner, Mackinley FitzPatrick, Clara Alexander

Have you been paying attention in class? Test your knowledge of archaeology at Harvard with this crafty crossword puzzle!



Across

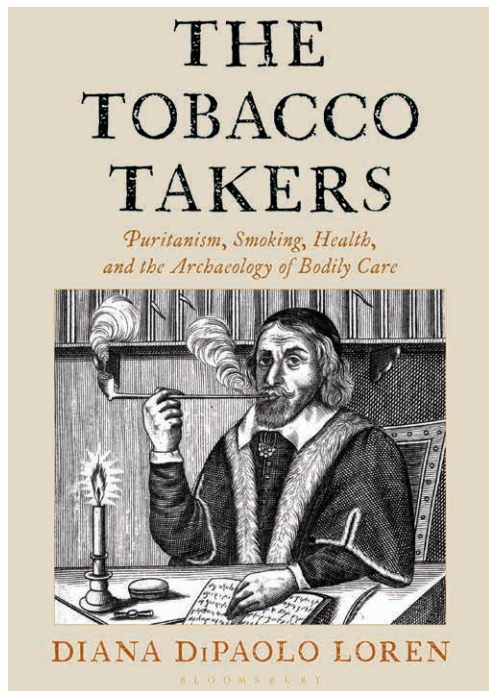
2. Country whose civil war lasted from 1936-1939
5. More than 900 elephant tusks were found at this site in China
6. Passageway entrance to a tomb
8. Winner of the Hoopes Prize for her thesis on chinampas
9. Archaeological site of Western Zhou capital known in texts by the name Zongzhou
11. Archaeology faculty member elected to the US National Academy of Sciences in 2026
13. The Aztecs were the first to excavate this ancient American "city of the gods"
14. Ancient Roman city being investigated by Harvard archaeologists and MIT engineers
15. Word for precious object in the Māori language

Down

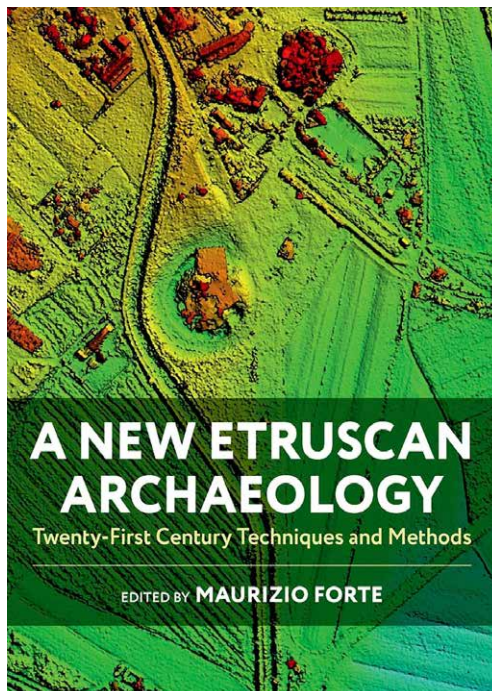
1. Bronze pin or leg bone?
2. The Zhuangzi text exalts these bronze objects as treasures
3. Incan communication system made of knotted cords
4. First professor at Harvard to admit graduate students in archaeology
5. City hosting the 91st Society for American Archaeology meetings
7. The pharaoh with the smallest of the three Giza pyramids
10. Aircraft flown over Giza in 1931
12. 17th century contraband indulged in by Harvard students
13. Harvard's field school on the evolutionary origin of humans is on the banks of this lake

PUBLICATION HIGHLIGHTS

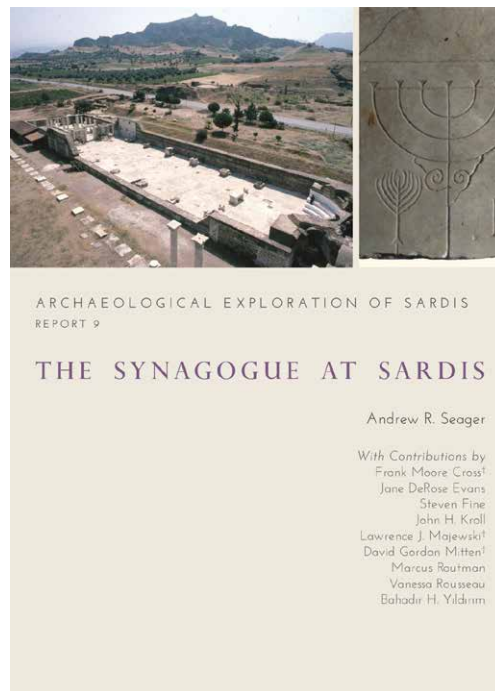
Books



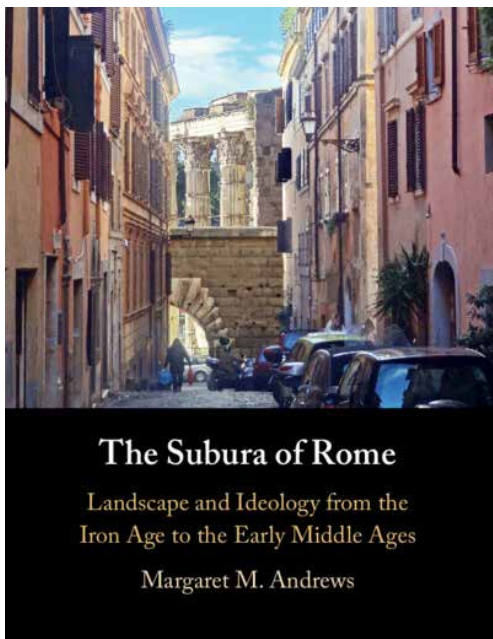
The Tobacco Takers: Puritanism, Smoking, Health, and the Archaeology of Bodily Care
Diana DiPaolo Loren
Bloomsbury, 2026



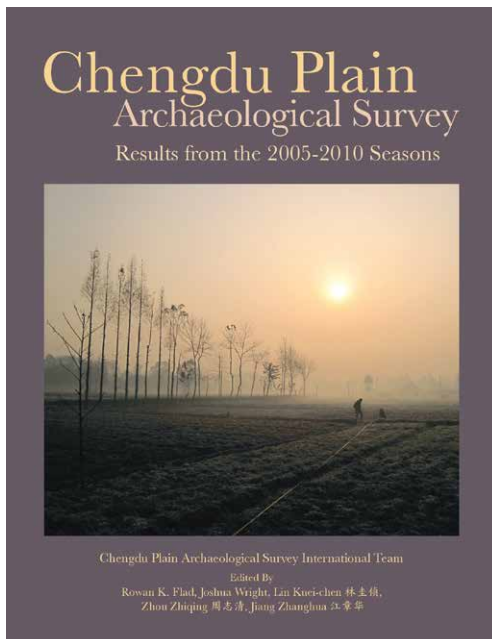
A New Etruscan Archaeology: Twenty-first Century Techniques and Methods
Edited by Maurizio Forte
Oxford University Press, 2025



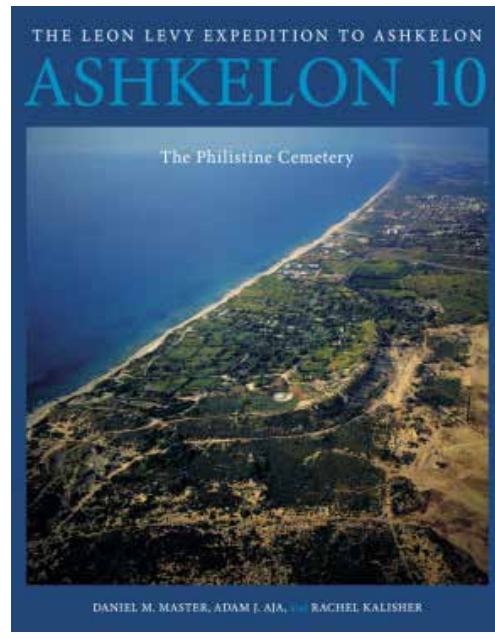
The Synagogue at Sardis
Report 9
Andrew R. Seager
Archaeological Exploration of Sardis, 2026



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Margaret M. Andrews
Cambridge University Press, 2026



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Edited by Rowan Flad, Joshua Wright, Lin Kuei-chen, Zhou Zhiqing, and Jiang Zhanghua, Cotsen Institute of Archaeology Press, 2026



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The Leon Levy Expedition to Ashkelon
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Colonial Art (HAA)

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Assistant Professor (NELC)

Celine Debourse

Assistant Professor (NELC)

Emma Dench
McLean Professor of Ancient and Modern History
and of the Classics (Classics)

Abigail Desmond
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Anita Dirnberger
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Susanne Ebbinghaus
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Head, Division of Asian and Mediterranean Art,
Lecturer on the Classics (HAM)

Seth Estrin
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Barbara Fash
Director of Corpus of Maya Hieroglyphic Inscriptions
Program (PMAE)

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Bowditch Professor of Central American and
Mexican Archaeology and Ethnology (Anthropology)

Rowan Flad
John E. Hudson Professor of Archaeology
(Anthropology and ASPR)

Maurizio Forte
Senior Affiliate, metaLAB

Eurydice Georganteli
Lecturer on History of Art and Architecture (HAA)

Anna Glenn
Preceptor in Sumerian (NELC)

Daniel Green
Field Program Director (HEB)

Pablo Gutiérrez de León
ASPR Junior Fellow

Xiaoge He
Postdoctoral Fellow (Anthropology)

Polly Hubbard
Director of Education (PMAE and HMANE)

Paul J. Kosmin
Philip J. King Professor of Ancient History (Classics)

Jingbo Li
ASPR Junior Fellow

Daniel Lieberman
Edwin M. Lerner Professor of Biological Sciences
(HEB and ASPR)

Matthew Liebmann
Peabody Professor of American Archaeology and
Ethnology (Anthropology)

Diana Loren
Senior Curator and Lecturer of Anthropology (PMAE)

Margot Louail
ASPR Junior Fellow

Andrew Majewski
Museum Education Specialist (PMAE)

Peter Der Manuelian
Barbara Bell Professor of Egyptology (NELC,
Anthropology, and ASPR)

Christina Maranci
Mashtots Professor of Armenian Studies (HAA)

Irene Soto Marín
Assistant Professor of Classics (Classics)

Michael McCormick
Francis Goelet Professor of Medieval History (History
and Medieval Studies)

Megan Michel
Postdoctoral Fellow (HEB)

Stephen Mitchell
Robert S. and Ilse Friend Professor of Scandinavian
and Folklore (Folklore and Mythology)

Jerry Mitrovica
Frank B. Baird, Jr. Professor of Science (EPS)

Shayla Monroe
Assistant Professor (Anthropology and ASPR)

Michèle Morgan
Curator of Osteology and Paleoanthropology (PMAE)

Victoria Moses
Postdoctoral Fellow (SoHP)

Gülru Necipoğlu
Director of the Aga Khan Program for Islamic
Architecture at Harvard, Aga Khan Professor of
Islamic Art and Architecture (HAA)

Elizabeth Nist
Lab Manager (Anthropology)

Vladimir Olivero
Preceptor in Classical Hebrew (NELC)

Ann Pearson
Murray and Martha Ross Professor of Environmental
Sciences (EPS)

Jane Pickering
William & Muriel Seabury Howells Director (PMAE)

Gabriel Pizzorno
Senior Preceptor on History (History)

Jennifer Poulsen
Collections Manager (PMAE)

Jeffrey Quilter
Associate of the Peabody Museum (PMAE)

Jeremy Rau
Professor of Linguistics and of the Classics (Classics)

David Reich
Professor of Genetics and Human Evolutionary Biology
(Genetics, Harvard Medical School, and HEB)

Julia Rhyder
John L. Loeb Associate Professor of the Humanities
and Associate Professor (NELC)

David Roxburgh
Prince Alwaleed Bin Talal Professor of Islamic Art
History (HAA)

Kara Schneiderman
Director of Collections Division (PMAE)

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Adrian Staehli
Professor of Classical Archaeology (Classics)

Kaja Tally-Schumacher
Assistant Professor of Landscape Architecture
(Harvard Graduate School of Design)

Solenn Troadec
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Ethnology (Anthropology and ASPR)

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Naomi A. Weiss
Professor of the Classics (Classics)

Jesse Wolfhagen
Zooarchaeology Lab Manager (Anthropology)

Kayla Worthey
ASPR Junior Fellow

Chengrui Zhang
Postdoctoral Fellow (Anthropology)

Zhiyan Zhang
Visiting PhD student (Anthropology)

Bahadır Yıldırım
Administrative Director, Archaeological Exploration of
Sardis (HAM)

Archaeology Students

Undergraduate Students

Jide Anekwe	Junior
JJ Drummond	Junior
Corbin Robinson	Junior
Aghader Yassen	Junior
Skye Lam	Senior
Blake Bernhardt	Senior
Anika Christensen	Senior
Emily Ding	Senior
Isabella McMillen	Senior
Elisabeth Ngo	Senior
Adelaide Parker	Senior
Eli Visio	Senior
Sneha Yelamanchili	Senior

Graduate Students

Emmanuel Aoron	HEB
Andrew Bair	Anthropology
Gaia Bencini	NELC
Marlena Billings	Anthropology
Jack Bishop	Anthropology
Jody Bloom	NELC
Keri Burge	Anthropology
Akeem Burgess	Anthropology
Jake Colloff	NELC
Emily Conlogue	Anthropology
Miguel Correa	NELC
Roslyn Curry	HEB
Elissa Day	NELC
Andrew Deloucas	NELC
Yufei Deng	Anthropology
Lorennny Diaz	Religion
Mackinley FitzPatrick	Anthropology
Dylan Flicker	Anthropology
Félix Gariépy	Classics
David Hannan	NELC
Ryan Hart	NELC
Yiduo He	Anthropology
Joyce Ho	Anthropology
Percy Ho	Anthropology

Hannah Hoffman	Classics
Arin Jones	NELC
Jacob Kalodner	Anthropology
Nisha Kumar	NELC
Edan Larkin	History
Maya Levine	Religion
Sarah Loomis	Anthropology
Freya Lu	NELC
Javier Maravall-Lopez	HEB
Felix Montgomery	Classics
Reed Morgan	History
Gökçe Öztürk	Anthropology
Priya Patel	Anthropology
Jessica Patey	NELC
Kristen Pearson	IAAS / Anthropology
Annabel Perry	HEB
Julia Puglisi	NELC
Samantha Richter	Classics
Erika Robles Cortés	Anthropology
Natalia Schwien	Religion
Elena Shadrina	History
Hilo Sugita	NELC
Daniel Tabin	HEB
Leonardo Valdez Ordonez	Anthropology
Elyse Venerable	Anthropology
Ian Wilson	Classics

Abbreviations

AAAS, African and African American Studies
ASPR, American School of Prehistoric Research
EPS, Earth and Planetary Sciences
HAA, History of Art and Architecture
HAM, Harvard Art Museums
HDS, Harvard Divinity School
HEB, Human Evolutionary Biology
HMANE, Harvard Museum of the Ancient Near East
IAAS, Inner Asian and Altaic Studies
NELC, Near Eastern Languages and Civilizations
PMAE, Peabody Museum of Archaeology and Ethnology

Fall 2025 Events

September 11, 2025

Elephants in Bronze Age Central China – Megafauna/ Human Relationships as Seen Through Material Culture

Time: 03:00PM - 05:00PM

Location: Tozzer, Room 203

Speaker: Rowan Flad (Anthropology Department, Harvard University)

September 16, 2025

Luxury and the Contestation of Political Identities in Hellenistic Asia and the Post-Achaemenid Iranian World

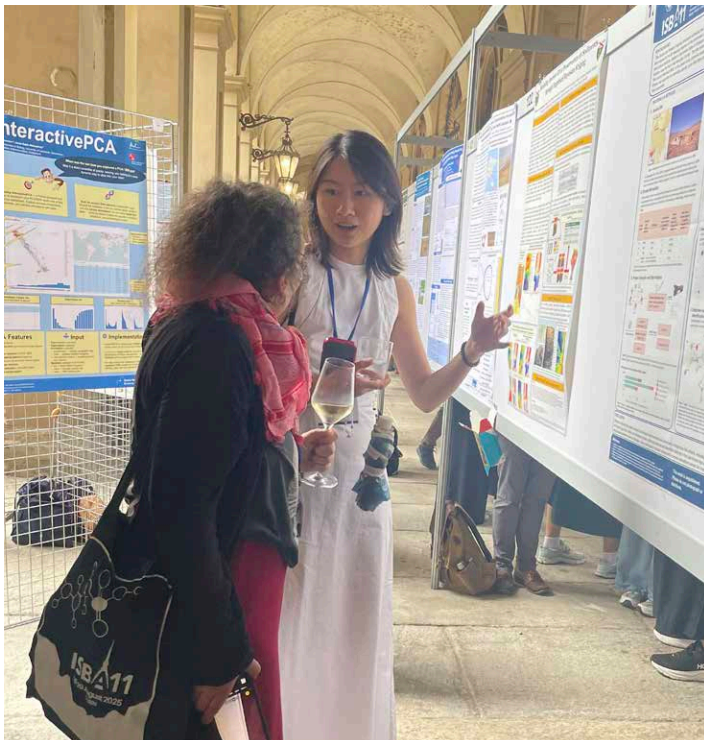
Time: 05:00PM - 06:30PM

Location: Sever Hall, Room 102

Speaker: Matthew P. Canepa (Univ. of California, Irvine)

September 17, 2025

Understanding Afro-Eurasian Entanglements across Hellenistic Asia and the Post-Achaemenid Iranian World: Transculturation, Entanglement, and Assemblage



Visiting PhD student Zhiyan Zhang from Peking University presents her research on ancient dairying at the 2026 International Society for Biomolecular Archaeology meetings in Torino, Italy

Time: 12:00PM - 01:30PM

Location: Barker Center, Thompson Room (12 Quincy St.)

Speaker: Matthew P. Canepa (University of California, Irvine)

September 17, 2025

Virtual Egypt: 3D Teaching with Museum Collections

Time: 06:00PM - 07:00PM

Location: Geological Lecture Hall (24 Oxford Street)

Speaker: Rita Lucarelli (Associate Professor of Egyptology, Department of Middle Eastern Languages and Cultures, University of California, Berkeley)

September 18, 2025

The Destruction of Mt. Gerizim: Archaeology, History, Interpretation

Time: 05:00PM

Location: Harvard Museum of the Ancient Near East, Room 201

Speaker: Andrea Berlin (James R. Wiseman Chair in Classical Archaeology and Professor of Archaeology and Religion, Boston University)

October 1, 2025

Learning from the Experts: Ethnoarchaeological Insights on Multispecies Lifeways and Mobile Settlement among North and Inner Asian Hunter- Reindeer Herders

Time: 1:15PM

Location: S050 CGIS-South, Thomas Chan-Soo Kang Room (or virtual)

Speaker: Henny Piezonka (Freie Universität, Berlin)

October 9, 2025

Foodways in Dynastic Transition in Ancient China: Alcohol, Diet, and Identity from Shang to Zhou

Time: 03:00PM - 04:30PM

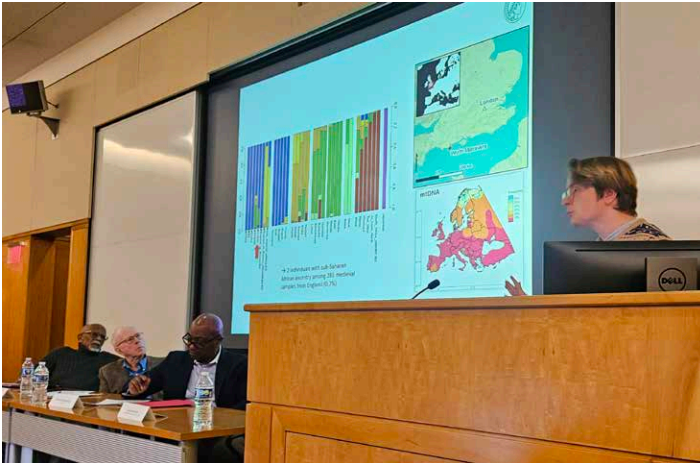
Location: Tozzer, Room 203

Speaker: Jingbo Li (American School of Prehistoric Research, Harvard University)

October 15, 2025

How to Fill a Circle - Design in Warring States Bronze, Jade, Lacquer, and Silk

Time: 12:00PM



Guest speaker Joscha Gretzinger presents his research on the West African Connections with Anglo-Saxon England in the SoHP Speaker Series

Location: S050 CGIS-South, Thomas Chan-Soo Kang Room

Speaker: Wang Haicheng (Mary and Cheney Cowles Endowed Professor, University of Washington)

October 16, 2025

Sardis Internship Opportunities

Time: 05:30PM

Location: Barker Center, Plimpton Room (Room 133)

October 21, 2025

Big Ideas, Quick Talks

Time: 05:00PM - 06:30PM

Location: CGIS S020, Belfer Case Study Room
SoHP Speaker Series

October 23, 2025

Spatial Ethnoarchaeology of Change in Mobile Pastoralist and Marsh-Dwelling Communities

Time: 03:00PM - 05:00PM EDT

Location: Tozzer, Room 203

Speaker: Emily Hammer (University of Pennsylvania, Middle Eastern Languages and Cultures)

November 6, 2025

Rewriting Medieval History with Ancient DNA

Time: 05:00PM - 06:30PM

Location: CGIS S020, Belfer Case Study Room
SoHP Speaker Series

November 6, 2025

An Anthropogenic Disaster? Cash Crops, Water

Management, and Desertification in Romano-Egyptian Oases

Time: 03:00PM - 05:00PM EST

Location: Tozzer, Room 203

Speaker: Irene Soto Marin (Classics, Harvard University)

November 11, 2025

Ancient DNA Illuminates the Origins and Early Migrations of the Slavs

Time: 05:00PM - 06:30PM

Location: CGIS S020, Belfer Case Study Room
SoHP Speaker Series

November 12, 2025

Decoding the Pyramid Statues of King Menkaure

Time: 06:00PM - 07:00PM

Location: Geological Lecture Hall (24 Oxford Street)
Speaker: Florence Dunn Friedman (Visiting Scholar, Department of Egyptology and Assyriology, Brown University)

November 20, 2025

The Radical Comparative Politics of Ancient Northwest Mexico

Time: 03:00PM - 05:00PM EST

Location: Tozzer, Room 203

Speaker: Matt Pailes (University of Oklahoma and Harvard University, Anthropology)

December 3, 2025

Carrying the Qara Shanyraq: Craft and the Everyday Politics of Patrimony in Mongolian Kazakh Households

Time: 01:15PM - 02:30PM

Location: S050 CGIS-South, Thomas Chan-Soo Kang Room (or virtual)

Speaker: Kristen Pearson (IAAS Doctoral Candidate)

Spring 2026 Events

January 5–January 15, 2026

Exhibition: **Encounters in the Americas**

Location: Peabody Museum of Archaeology and Ethnology (11 Divinity Ave)



Harvard alumni, students, and faculty gather together to discuss ancient empires and ancient DNA. Pictured left to right: Darryl Campbell ('06), Jakub Kabala ('04), Emily Ding ('26), Michael McCormick (History)

January 29, 2026

Archaeology of Harvard Yard Field Updates

Time: 03:00PM - 04:30PM

Location: Tozzer, Room 203

Speaker: Trish Capone, Diana Loren, Emily Conlogue (Harvard University, Peabody Museum and Anthropology)

February 4, 2026

The Advent of Nomadic Pastoralism in Northeast Asia: An Evolving Synthesis

Time: 1:15PM

Location: S050 CGIS-South, Thomas Chan-Soo Kang Room (or virtual)

Speaker: Joshua Wright (University of Aberdeen)

February 10, 2026

Manuscripts and Molecules: A New Project to Analyze the Parchments of the Earliest English and Irish Books, ca. 600–900 C.E.

Time: 05:30PM - 07:30PM

Location: CGIS S020, Belfer Case Study Room

Speaker: Joanna Story (Professor of Early Medieval History, University of Leicester)

February 12, 2026

What is the Destination for the Soul of the Eurasian Dead in 6th Century China? The Yu Hong (533–592) Sarcophagus as a Microcosm of the Silk Road

66 In Situ

Time: 03:00PM - 04:30PM

Location: Tozzer, Room 203

Speaker: Eugene Wang (Harvard University, History of Art and Architecture)

February 13, 2026

A Study of Drilling Tools Used for Divination Oracle Bones in the Western Zhou Dynasty

Time: 01:00PM

Location: Peabody Museum, Room 12

Speaker: Zhang Tianyu (Peking University)

February 24, 2026

Ancient Empires, Ancient DNA: Connecting Classical Civilization and the Near East with the Science of the Human Past

Time: 05:30PM - 07:00PM

Location: CGIS S020, Belfer Case Study Room

Speaker: Peter Van Dommelen, Victoria Moses, Alison Barton (SoHP)

February 26, 2026

Tombs for the Living at North Saqqara, Egypt

Time: 03:00PM - 04:30PM

Location: Tozzer, Room 203

Speaker: Sergio Alarcón Robledo (Yale University)

March 2, 2026

An Archaeological History of the Kuril Islands in the Context of Northeast Asian “World Systems”

Time: 01:00PM

Location: Peabody Museum Room 12

Speaker: Ben Fitzhugh (University of Washington, Asian Archaeology Seminar)

March 5, 2026

Opening Conversation for Celtic Art Across the Ages

Time: 06:00PM - 07:30PM

Location: Harvard Art Museums, Menschel Hall, Lower Level (32 Quincy Street)

Speakers: Susanne Ebbinghaus, Laure Marest, Penny Coombe, Catherine McKenna

March 6, 2026

Harvard Anthropology Roundtable Discussion

(Changing the Landscape of Archaeological Publishing)

Time: 01:00PM

Location: Tozzer, Room 203

Speakers: Mack Fitzpatrick, Christina Warinner, Rowan Flad, Bridget Alex (Harvard University)

March 11, 2026

The Future of the Ancient Egyptian Afterlife

Time: 06:00PM - 07:00PM

Location: Geological Lecture Hall (24 Oxford Street)

Speaker: Rune Nyord (Associate Professor and Chair, Art History Department, Emory University)

March 12, 2026

Paleoenvironment in the Northwest African Arena of Human Origins

Time: 03:00PM - 04:30PM

Location: Tozzer, Room 203

Speaker: Kayla Worthey (Harvard University, ASPR Junior Fellow)

March 24, 2026

Considering Data Collected from Archaeological Objects



Undergraduate Juliet Garon won a PRISE fellowship to conduct 2025 summer research on ancient proteomics with postdoc Dr. Ashley Scott in the Warinner Ancient Biomolecules Laboratory

Time: 05:00PM

Location: Tozzer, Room 203

Speaker: Karen Thompson (Senior Research Data Specialist, University of Melbourne)

March 25, 2026

Homo sapiens Meet Neanderthals: The End of a World

Time: 06:00PM - 07:00PM

Location: Geological Lecture Hall, 24 Oxford Street

Speaker: Jean-Jacques Hublin (Collège de France; Max Planck Society)

March 30, 2026

Unseen Hands: Designing Gardens in the Roman World

Time: 05:30PM

Location: CGIS S020 (1730 Cambridge Street)

Speaker: Kaja Tally-Schumacher (Harvard Graduate School of Design; Casa della Regina Carolina Project at Pompeii)

April 2, 2026

Ancient Cities of Guatemala's Pacific Coast (2026 Gordon R. Willey Lecture)

Time: 06:00PM - 07:00PM

Location: Geological Lecture Hall (24 Oxford Street)

Speaker: Oswaldo Chinchilla Mazariegos (Anthropology, Yale University)

April 6, 2026

Harvard Anthropology Roundtable Discussion (Changing the Landscape of Archaeological Publishing)

Time: 01:00PM

Location: Tozzer, Room 203

Speakers: Mackinley FitzPatrick, Christina Warinner, Rowan Flad, Bridget Alex (Harvard University)

April 11, 2026

Daylong Symposium: Celtic Art Up Close

Time: 10:30AM - 04:00PM

Location: Harvard Art Museums, Menschel Hall, Lower Level (32 Quincy Street)

April 12, 2026

Amazing Archaeology Fair



Frauke Sachse, Simon Martin, and Christina Warinner welcome guests at the Harvard-Dumbarton Oaks Alumni and Friends Party at the SAAs

Time: 01:00PM - 04:00PM

Location: Peabody Museum of Archaeology & Ethnology;
Harvard Museum of the Ancient Near East

April 14, 2026

Free Hybrid Lecture: The Enigmatic Treasure of a Nubian Queen

Time: 06:00PM - 07:00PM

Location: Geological Lecture Hall (24 Oxford Street)
Speaker: Denise M. Doxey (Norma Jean Calderwood Curator of Ancient Egyptian, Nubian, and Near Eastern Art, Museum of Fine Arts, Boston)

April 15, 2026

New on View: Piece by Piece—Recomposing an Ancient Menorah Found at Sardis

Time: 12:30PM - 01:00PM

Location: Harvard Art Museums (32 Quincy Street)
Speaker: Bahadır Yıldırım, Catherine S. Alexander (Archaeological Exploration of Sardis)

April 16, 2026

Archaeology of Harvard Yard Open House (ANTH 1131)

Time: 12:30PM - 02:30PM

Location: Tozzer Atrium, Second Floor
Speaker: Students in ANTH 1131

April 16, 2026

Unfinished Pompeii: Insights into Ancient Roman Self-Healing Concrete Technology

Time: 03:00PM

Location: Tozzer, Room 203

Speaker: Admir Masic (Massachusetts Institute of Technology, Civil and Environmental Engineering)

April 23, 2026

Reconstructing Hominin Evolution: Phylogenetic Insights and New Fossil Evidence from the Turkana Basin

Time: 03:00PM - 04:00PM

Location: Haller Hall

Speaker: Carrie Mongle (Stony Brook University, Anthropology and Turkana Basin Institute)

April 23, 2026

Agricultural Strategies and Environmental Change in Ancient Anatolia

Time: 06:00PM

Location: Harvard Museum of the Ancient Near East, Room 201 (6 Divinity Ave)

Speaker: John M. Marston (Boston University)

May 1, 2026

Harvard - Dumbarton Oaks Alumni and Friends Party at the Society for American Archaeology meetings

Time: 06:00PM

Location: Novela, 662 Mission St., San Francisco, CA

May 15, 2026

Paleogenomics and the History of Human Malaria

Time: 1:00PM - 05:00PM

Location: Smith Campus Center

Speaker: Megan Michel (Harvard University, Human Evolutionary Biology; Malaria in a Changing World: Past Lessons, Present Challenges and Future Solutions Workshop)



In Situ AY 2025/26: Edited, typeset, and designed by

Christina Warinner, *SCA Chair*
Clara Alexander, *SCA Administrative Coordinator*
Mackinley FitzPatrick, *SCA In Situ Editor in Chief*



Harvard Anthropology PhD students and friends at the 2026 Society for American Archaeology meetings in San Francisco, CA

The Standing Committee on Archaeology

The Standing Committee on Archaeology is a multidisciplinary group of scholars appointed to promote the teaching of archaeology at Harvard and advance knowledge of archaeological activity, research, fieldwork, and techniques in the many and varied fields where archaeology is employed as an approach to past cultures and histories around the world. As promoters of Archaeology, we are in charge of the secondary field, both for undergraduate students and graduate students. Our role is to guide and help all secondary students to get the most out of what the secondary field can offer both at Harvard and beyond, aiming to help expand the students' knowledge and practice in Archaeology.

Archaeology can be seen as the study of past human societies through the recovery, analysis, and interpretation of material remains. Those who practice archaeology employ a wide range of methods, techniques, and theoretical orientations drawn from across the spectrum of academic disciplines to further their specific intellectual goals. Likewise, scholars of many disciplines who do not consider themselves to be practicing archaeologists nevertheless use the results of archaeological work in their teaching and research. Our members and students work with and in a wide range of museums and departments on Harvard's campus.



<https://archaeology.harvard.edu>

Excavations at the site of Falerii Novi, Italy