

ROCHESTER ACADEMY OF SCIENCE

Anthropology Section Today

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SECTION LEADER'S MESSAGE

Welcome to the world of Anthropology! I am Dr. Alex J. Smith, a professor at SUNY Brockport in the Department of Anthropology and the section leader. Anthropology is an incredible discipline, concerned with the study of the human condition as we refer to it. That includes human evolution, primatology, archaeology, cultural anthropology, forensic anthropology, and linguistics (among many more sub-disciplines).

Our section often teams up with other area archaeology and anthropology institutions for events, including distinguished speakers who live in or come visit Rochester (most recently via Zoom). This past month, we helped host a talk by Dr. Nancy Gonlin of Bellevue College on October 28th alongside the Archaeological Institute of America's Rochester Society. The talk was, "Torches, Fireflies, and Moonlight: The Brilliance of Classic Maya Lightscapes." The talk was not recorded, but you can see Dr. Gonlin give a similar talk to the AIA earlier this year on youtube: <https://www.youtube.com/watch?v=d79UpVgSiow>.

Dr. Gonlin discussed the nature of darkness and illumination in the ancient world, including the difference between or daytime activities and our nighttime activities. From our own lives, it is clear we do different things depending on the light, which also produces different material culture, practices, and symbolic elements religion and cosmology. She argued we can potentially discern those differences in the archaeological record, opening up a new world of interpretation.

The world of Anthropology is also constantly shifting, changing, or being outright rewritten. We've created this newsletter to keep section members updated on upcoming events well the fascinating and sometimes shocking news coming out of the many research endeavors in anthropology. Enjoy some of these stories and look out for future newsletters and future events!

MEMBERSHIP RENEWAL TIME

Unless you are a Life Member, note that your membership will expire on December 31, 2021. Please renew your membership at your earliest convenience. A membership form is included with this newsletter. Remember, on the form, you have to add the Rochester Academy of Science membership (\$10 individual/\$15 family) and Anthropology Section membership (\$2 individual or \$3 family or \$1 student).

ARCHAEOLOGY NEWS - Interdisciplinary Research Shows the Spread of Transeurasian Languages Was Due to Agriculture (11/10/2021)

The origin and early dispersal of Transeurasian languages, including, among others, Japonic, Koreanic, Tungusic, Mongolic and Turkic, is among the most disputed issues of Asian prehistory. Although many of the commonalities between these languages are due to borrowing, recent studies have shown a reliable core of evidence supporting the classification of Transeurasian as a genealogical group, or a group of languages that emerged from a common ancestor. Accepting the ancestral relatedness of these languages and cultures, however, raises questions about when and where the earliest speakers lived, how descendant cultures sustained themselves and interacted with one another, and the routes of their dispersals throughout the millennia.

A new paper published in the journal Nature by an international team that includes researchers from Asia, Europe, New Zealand, Russia and the United States provides interdisciplinary support for the farming "Farming Hypothesis" of language dispersal, tracing the Transeurasian languages back to the

first farmers moving across Northeast Asia beginning in the Early Neolithic. Using newly sequenced genomes, an extensive archaeological database, and a new dataset of vocabulary concepts for 98 languages, they triangulate the time-depth, location and dispersal routes of ancestral Transeurasian speech communities.

The evidence from linguistic, archeological and genetic sources indicates that the origins of the Transeurasian languages can be traced back to the beginning of millet cultivation and the early Amur gene pool in the region of the West Liao River. During the Late Neolithic, millet farmers with Amur-related genes spread into contiguous regions across Northeast Asia. In the millennia that followed, speakers of the daughter branches of Proto-Transeurasian admixed with Yellow River, western Eurasian and Jomon populations, adding rice agriculture, western Eurasian crops and pastoralist lifeways to the Transeurasian package.

The linguistic evidence used to triangulate the results came from a new dataset of more than 3,000 cognate sets representing over 250 concepts in nearly 100 Transeurasian languages. From this, researchers were able to construct a phylogenetic tree which shows the roots of the Proto-Transeurasian family reaching back 9,181 years before the present to millet farmers living in the region of the West Liao River. A small core of inherited words related to land cultivation, millets and millet agriculture and other signs of a sedentary lifestyle further support the Farming Hypothesis. The conclusion is reinforced by genetic and archaeological results (255 Neolithic and Bronze Age sites).

(From Max Planck Institute for the Science of Human History press release, <https://www.shh.mpg.de/2071364/robbeets-transeurasian-agriculture> for more information). Open Access research paper available at <https://www.nature.com/articles/s41586-021-04108-8>



Excavations in progress at the Nagabaka site, Miyako island, Japan. © Mark Hudson



Human footprints at White Sands National Park in New Mexico show that human activity occurred in the Americas long as 23,000 years ago – about 10,000 years earlier than previously thought. Courtesy of David Bustos/White Sands National Park

Earliest Evidence of Human Activity Found in the Americas

Footprints found at White Sands National Park in New Mexico provide the earliest unequivocal evidence of human activity in the Americas and provide insight into life over 23,000 years ago. The findings are described in a Science journal article co-authored by University of Arizona archaeologist Vance Holliday. "For decades, archaeologists have debated when people first arrived in the Americas," said Holliday, a professor in the UArizona School of Anthropology and Department of Geosciences. "Few archaeologists see reliable evidence for sites older than about 16,000 years. Some think the arrival was later, no more than 13,000 years

ago by makers of artifacts called Clovis points. The White Sands tracks provide a much earlier date. There are multiple layers of well-dated human tracks in streambeds where water flowed into an ancient lake. This was 10,000 years before Clovis people."

Researchers Jeff Pigati and Kathleen Springer, with the U.S. Geological Survey, used radiocarbon dating of seed layers above and below the footprints to determine their age. The dates range in age and confirm human presence over at least two millennia, with the oldest tracks dating back 23,000 years. This corresponds to the height of the last glacial cycle, during something known as the Last Glacial Maximum, and makes them the oldest known human footprints in the Americas. The footprints tell an interesting tale of what life was like at this time. Judging by their size, the tracks were left mainly by teenagers and younger children, with the occasional adult. Tracks of mammoth, giant ground sloth, dire wolves and birds are also all present at the White Sands site. (from University of Arizona press release, see <https://news.arizona.edu/story/earliest-evidence-human-activity-found-americas> for more information).

The research paper is available from the editor.



Archaeologists working at the White Sands site. Courtesy of Matthew Bennett/ Bournemouth University

Astonishingly Preserved Roman Slave Quarters Unearthed in Pompeii After 2,000 Years

(8 November 2021)

An immaculately preserved room, once inhabited by slaves, has been discovered in the ancient Roman city of Pompeii in Italy, said The Archaeological Park of Pompeii, as reported by Bethany Dawson of *Business Insider*. In the small undecorated room of just 16 square meters remains three beds, a chamber pot that would have been used as a toilet, a wooden chest containing horse harnesses, and a



Unearthed beds, amphorae, ceramic pitchers and chamber pot. (Pompeii Archeological Park/MiC/REUTERS)

single small window. A shaft of a chariot was also found, suggesting the slaves also used their room as workspace mending their master's vehicle, reported The Guardian. One of the beds would have belonged to a child. The archaeologists credit the "incredible preservation" of the room to the huge eruption of Mount Vesuvius in CE 79, which obliterated the Roman city of Pompeii. Gabriel Zuchtriegel, director-general of Pompeii's archaeological park, hailed the findings on the Pompeii website as a "window into the precarious reality of people who seldom appear in historical sources."

He added that the discovery was "exceptional" and "it is certainly one of the

most exciting discoveries during my life as an archaeologist." In this expedition, two bodies were found, thought to be a master and slave. (<https://www.sciencealert.com/astonishingly-preserved-2-000-year-old-roman-slave-rooms-unearthed-in-pompeii> for the rest of this article).