

Thursday Afternoon, April 12

- 3:00 Lauren Kohut—Legacies of War: Fortified Landscapes and Political Transformation during the Late Prehispanic in the Colca Valley (Arequipa, Peru)
 3:15 Igor Chechushkov—Winter Is Coming: Is 'Fortification' Always Fortification?
 3:30 Elizabeth Arkush—Discussant
 3:45 Questions and Answers

[76] SYMPOSIUM ■ EMERGING FROM THE SHADOW OF THE CEIBA: RECENT RESEARCH IN MAYA PALEOETHNOBOTANY

Room: Maryland B

Time: 1:00 PM–3:45 PM

Chairs: Jessica Devio and Mario Zimmermann

Participants:

- 1:00 Mario Zimmermann—Examining the Bread-Basket Model: Puuc Intra and Inter-site Diversity in Plant Foods
 1:15 Scott Fedick, Gerald Islebe and Louis Santiago—Exploring the Edible Forest: Food Values and Archaeological Visibility of Indigenous Food Plants of the Maya Lowlands
 1:30 Jessica Devio—Assessing Botanical Diversity of Late-to-Terminal Classic Households at Xunantunich, Belize
 1:45 Anarrubenia Capellin Ortega—Investigating Ancient Maya Foodways in the Copan Valley, Honduras: Macrobotanical Analysis from Late Classic to Postclassic Middens in the Rio Amarillo East Pocket
 2:00 David L. Lentz, Nicholas Dunning and Vernon Scarborough—Agriculture, Land Management and Expressions of Elite Control at the Ancient Maya City of Tikal
 2:15 Sebastian Salgado-Flores—Prey Choice and Politics: Modelling Postclassic Maya Wood Selection at La Punta, Chiapas, Mexico
 2:30 Rebecca Friedel and M. Kathryn Brown—Communing with the Gods: The Paleoethnobotany of Fire Rituals
 2:45 Cameron L. McNeil—Capturing the Fragrance of Ancient Copan Rituals: Floral Remains from Maya Tombs and Temples
 3:00 Mallory Melton—Towards a Social Paleoethnobotany of Urbanization: Integrating Macrobotanical and Microbotanical Data to Explore Foodways at La Blanca, Guatemala
 3:15 Shanti Morell-Hart—Discussant
 3:30 Questions and Answers

[77] GENERAL SESSION ■ ARCHAEOOMETRY AND MATERIALS ANALYSIS

Room: Thurgood Marshall Ballroom East

Time: 1:00 PM–4:00 PM

Chair: Zuzana Chovanec

Participants:

- 1:00 Rebecca Bartusewich—Pottery Production at Idalion, Cyprus: Investigating First Millennium BCE Politics and Culture through Ceramic Petrography
 1:15 Kimberly Foecke, Douglas Meier, Edward Vicenzi, Russell Graham and Adam Creuziger—Microanalysis of Taphonomic Alteration on Skeletal Material - A Novel Approach to Identifying Damaging Sulfur Compounds
 1:30 Elisandro Garza—*Spondylus* Shells in Pre-Columbian Copan: Their Religious and Economic Significance
 1:45 Caroline Solazzo and Jean Soulat—The Trade of Tortoiseshell between the Caribbean and Europe during the 17th–18th Centuries: An Archaeological and Biomolecular Approach

INDIVIDUAL ABSTRACTS OF THE SAA 83RD ANNUAL MEETING

the examination of the transition from the Late and Transitional Archaic to the Early Woodland, a period in which it is suggested there was dramatic linked cultural and environmental change, where multiple competing groups gave way to the Meadowood, a culture centered on a vast network which spread trade goods, idiosyncratic objects of great social significance, and a worldview which would unite people across the Northeast. This view is supported by lithic analysis, including in-depth debitage analysis which identifies idiosyncratic patterns for cache blade production between sites, Minimum Analytical Nodule Analysis (MANA) for raw material use, as well as correlations of landscape utilization between wetland/upland setting between time periods. The transition from the Archaic to Woodland time periods in archaeological literature, initially conceived of as a simple marker between aceramic and ceramic cultures, has proven prescient for reasons which more reflect the people behind these artifacts.

Sobolik, Kristin [294] see Ingraham, Robert

Soderland, Hilary (University of Washington School of Law)
[193] *Discussant*

Solazzo, Caroline and Jean Soulat (LandArc Laboratory, France)

[77] *The Trade of Tortoiseshell between the Caribbean and Europe during the 17th–18th Centuries: An Archaeological and Biomolecular Approach*

Tortoiseshell is made from the scutes of sea turtles; historically, hawksbill turtle was the main source of tortoiseshell but other species might have been used. Between the 17th and 18th c. tortoiseshell obtained in the Caribbean was traded on North American and European markets. Tortoiseshell was used for making combs, fans, boxes, in bookbinding, and as veneering for furniture. Excavations in European workshops (Paris and Amsterdam) attest of the use of this exotic material into luxurious items. However, archaeological fragments of tortoiseshell or artefacts have degraded, so that often the material has lost its recognizable tortoiseshell pattern, making identification to species difficult.

The carapace and plastron of sea turtles are covered with keratinous scutes mainly composed of beta-keratins, a category of structural proteins that stack together to produce β -pleated sheet structures. Here, reference materials from five species of marine turtles were characterized by proteomics analysis to build a database of beta-keratin sequences and determine robust markers for species identification. Preliminary data have shown significant differences between hawksbill and green turtles, allowing distinction of these species in ancient materials. In addition, comb fragments from archaeological sites and workshops in France were examined.

Soler, Ana Maria [89] see Lozano Bravo, Hilda

Soler-Arechalde, Ana (UNAM), Cecilia Caballero-Miranda (UNAM), Ma Carmen Osorio (UNAM) and Itzayana Bernal (UNAM)

[293] *Archaeomagnetic Dating Results of PPC Project*

Archaeomagnetism is a dating technique whose application has been rising. This technique originally required burned materials, but in certain Mexican archaeological sites, volcanic products with magnetic minerals were added to the stucco mix, enhancing the geomagnetic field record and allowing us to determine it in non-burned samples. Thanks to this the number of dating events increased, improving the detail of the chronologies; a clear example of this happened in Teopanazco's neighborhood. A detailed sampling of burned and non-burned stuccos sampled between 2015(31) and 2016(33) had been processed. The dates obtained will be analyzed and compared with other previous results in order to get a greater image of the development of Teotihuacan city.

Soleski, Anna Marie (University of Toronto, Department of Earth Sciences), Yiting Xu (Zhejiang University), Joseph R. Desloges (University of Toronto) and Zhou Lin (Zhejiang University)

[284] *Holocene Floodplain Development of Qujiang, Zhejiang, China in the Context of Early Human Occupation of Jinhua Basin*

The Qujiang drains mountainous terrain in Zhejiang Province of east-central China. Shangshan cultures have been identified on floodplain terraces and earth mounds within the Qujiang valley. The choice of settlement in the area (10,000+ years BP) is constrained by several geographical factors, including topography, climate, access to water resources and human factors. The relationship between cultural occupation sites and river dynamics over the Holocene is poorly known in this region. Lateral and vertical river stability can be an important determinate of land use and settlement patterns. We investigate the geomorphic record of the Qujiang in relation to the Hehuashan river terrace occupation site using geophysical methods (GPR) and cores on the adjacent floodplain to infer long-term floodplain stability. Floodplain structure is dominated by shallow narrow channels comprised of basal gravels and sand (4 m depth), overlain by horizontally laminated infilled silty sands. We interpret the long-term natural channel pattern of the Qujiang to be a cobble-bedded, sandy anabranching river, subject to rapid and frequent lateral channel shifting and formation of large back-swamps during heavy flooding. This suggests poor habitat for occupation on the river's floodplain and supports settlement on the adjacent Pleistocene aged river terraces.

Solinis-Casparius, Rodrigo (University of Washington), Christopher T. Fisher (Colorado State University), Anna Cohen (Utah State University), Juan Fernandez Diaz (NCALM/University of Houston) and Jason Bush (Defense POW/MIA Accounting Agency (DPAA))

[299] *Excavations at the City of the Jaguar*

The Mosquitia ecosystem of NE Honduras is a critical region for understanding past patterns of socio-political development and interaction between Mesoamerica and Central America. Caches of ground stone and other objects have long been noted for the region but have never before been systematically examined. Here we report on the recent partial excavation and consolidation of one of these deposits from the newly documented city of the Jaguar, Gracias a Dios, Honduras, constituting a deposit of several hundred stone, ceramic, and other objects. We find that 1) the objects were deposited in a single episode within a cleared ritual space, 2) objects were arranged into groups representing vulture, death, and were-jaguar motifs, 3) many objects were ritually broken, 4) ceramics and other materials placed on and around the central group may represent recurring veneration at this location. The Jaguar ofrenda represents an example of ritual behavior, sacred space, and material culture that may be related to the abandonment of the city sometime in the 16th century.

Solis, Kristina (University of Texas at San Antonio)

[105] *Late Holocene Climate Change and the Emergence of Hunter-Gatherer Territoriality in the Late Archaic Texas Coastal Plains: An Analysis Using Bioavailable Strontium*

The Late Holocene was a time of sea level stability, increased moisture, and abundant resources. Existing models suggest that this environment set the stage for population packing and territoriality. In this presentation, strontium isotope ratios from the Loma Sandia mortuary site (2800–2600 BP) are used to evaluate the emergence of territoriality among hunter-gatherer populations on the Texas Coastal Plain. Assessing territoriality with human strontium data is facilitated by determining the strontium ratios in the local geology. While it is common to obtain strontium isotope ratios from geologic regions through plants or substrate, they tend to show heterogeneity in a given area. Strontium ratios from animal skeletal tissue, known as bioavailable strontium, are more homogenous because they provide an average of an area. I present both strontium bioavailability data from modern fauna as well as the ancient human data to illustrate how strontium ratios from diverse geological areas are a useful tool for the study of emergent hunter-gatherer territoriality in the context of Late Holocene climate.