

### SOUTH-CENTRAL CONFERENCE ON MESOAMERICA

THE 7TH ANNUAL SCCM WILL BE HOSTED BY THE UNIVERSITY OF TEXAS AT TYLER

#### **ABSTRACTS**

#### Alsgaard, Asia (University of New Mexico)

Utilization of Fish Resources in the Yucatán Peninsula

Fish resources are different between available zooarchaeological data sets taken from coastal assemblages in the Northern Yucatán peninsula. It is unclear if this is due to environmental or cultural differences between the sites; however, there is evidence that fish from some of these regions were then traded inland to Mayapán, as noted by previous authors. I will focus on the ability of statistics, specifically the use of nestedness, to distinguish zooarchaeological assemblages coming from different fish populations and the potential of this technique to identify sources of trade between Maya centers.

#### Baker, Jeffrey L. (Crystal Springs Environmental Services)

Agriculture, Population, and Climate Change in the Maya Lowlands at the end of the First Millennium

Over the last 20 years a large number of studies have proclaimed to prove that a prolonged drought caused the Maya collapse. These studies have not, however, made any systematic attempt to compare the climatic data with population data from the Maya Lowlands. This paper will compare the climatic data, with population data, botanical data, and agricultural data to provide a more complete understanding of the role a decline in rainfall played in the collapse of Maya states in the southern lowlands.

#### Bascopé, Grace Lloyd (Botanical Research Institute of Texas, Maya Research Program)

Ethnography and Conservation Botany: Community Driven Student Projects in Yaxunah, Mexico

This presentation discusses how field school projects are negotiated with members of a small rural Mayan-speaking village in the Mexican state of Yucatan in such a way that community members take lead roles in designing and working toward completion of the final products. Such a design/implement strategy helps assure that villagers take ownership of the research process, mentor the students, and receive a product that is meaningful to them. Through this service-learning process students come to understand the difference between working towards community-driven goals and imposing their own research designs on villagers.

Brown, M. Kathryn (University of Texas at San Antonio), Leah McCurdy (University of Texas at San Antonio)

#### The Chamber of Secrets at Xunantunich

Investigations at El Castillo uncovered a carefully filled Late Classic room. The walls were covered with incised designs, ranging from simple sketches (graffiti) to more formal renderings. The room appears to have been a special place where sages trained apprentices in the arts and sacred knowledge. The walls were partitioned into sections and several images were repeated as if the designs were being practiced. We argue that some plastered walls were not simply structural but served as canvases for artistic training and learned scribal expression. This newly discovered room provides a glimpse into the transmission of ancient Maya sacred knowledge.

#### **Buck, Reece (The University of Houston)**

Social and ritual significance of Cranial Modification in Mesoamerica

One of the most easily recognized feature of Pre-Classic Mesoamerica is that of cranial modification. In today's society it is a wide-held belief that the main reason for this tradition was to make oneself look more like the Gods. In order for this practice to occur children would be fitted early on in childhood to form the elongated cranium. In this paper I will try to explain the cultural significance of this practice, as well as if there is a pattern of gender specificity or social stratification that demarcates which individuals can or cannot have cranial modification.

#### Cap, Bernadette (University of Texas at San Antonio)

Classic Maya Marketplace Investigations in the Mopan River Valley, Belize

The physical traits and economic impact of marketplaces among the Classic Maya often has been assessed from site-specific perspectives due, in part, to the challenges of the archaeological identification of marketplaces and thus the current rarity of them. I compare evidence for marketplaces at the sites of Buenavista del Cayo and Xunantunich, located 5 km from each other in the Mopan River valley, Belize. The close proximity of the posited marketplaces allows for a comparative discussion on the ways in which marketplaces were physically constructed, as well as their embeddedness and resiliency within Classic Maya society.

#### Davis, Alyssa L. (New Mexico State University)

Social Memory and Identity at Xnoha, Belize

This research from the ancient Maya archaeological site of Xnoha, Belize, applies the theory of social memory and identity as presented by Julia Hendon (2001; 2010) to the construction, function, and termination of Structure 100 and Patio Group 78. This essay will define social memory and identity, and the multifaceted ways in which ancient Maya social groups constructed it. The discussion will begin with an overview of the archaeological site at Xnoha, followed by the excavations that have been completed at Structure 100 and Patio Group 78 by the Maya Research Program. Finally, this essay will address how social memory and identity were constructed within each space during the Late Preclassic and Early-Middle Classic periods.

#### Eppich, Keith (Collin College)

Requiem for the Classic Kings: the end of rulership at El Perú-Waka'

The following paper presents the most recent excavations from the Northwest Palace Complex at El Perú-Waka'. It focuses on the last few decades of Classic kingship at that ancient city. The last rulers invested considerable effort into the renovation of the royal precinct, including large-scale architectural

modification of the royal palace, reorientation of the ballcourt, an eastern pyramid, and perhaps a half-constructed popul nah. This paper presents recent investigations into this last gasp of Classic kingship, an attempt to rejuvenate ancient traditions of Classic Maya shaman-kings. This effort failed, but the city itself continued, using new religious and political innovations.

Eshleman, Sara (University of Texas at Austin), Thomas Guderjan (University of Texas at Tyler, Maya Research Program), Ann-Marie Jacoby (Georgetown University), Colin Doyle (University of Texas at Austin), Samantha Krause (University of Texas at Austin), Justin Telepak (Maya Research Program), Timothy Beach (University of Texas at Austin), Sheryl Luzzadder-Beach (University of Texas at Austin)

Feasibility of ancient Maya canoe travel along the Rio Hondo

Evidence suggests that the Rio Hondo was an ancient Maya trade route. The surrounding region contains the earliest evidence of both agriculture and wetland agriculture in the Maya world, as well as extensive and intensive use of the land. This agriculture is paired with ancient sites along the river's extent. Despite its importance, this river has not been well-researched. A modern dugout canoe was created and utilized to assess the feasibility of riverine trade. We discerned that the entire extent of the river could be traveled in approximately three days with a well-made boat and skilled oarsmen.

Feathers. Valerie (Louisiana State University), Heather McKillop (Louisiana State University), E. Cory Sills (University of Texas at Tyler), Rachel Watson (LA State Division of Archaeology)

Horizontal Excavation of an Underwater Shell Midden at the Eleanor Betty Site. Belize

Horizontal excavations were undertaken to expose the extent of an underwater shell deposit at Eleanor Betty, one of the Paynes Creek Salt Works, Belize, as part of dissertation research. Loss-on ignition of marine sediment samples from each of the 25 underwater excavation units and sorting of the organic component of the marine sediment indicate sea-level rise submerged the site in the Postclassic. Butcher marks on oyster shells support our interpretation that the shell deposit was cultural. Most of the artifacts were briquetage, indicating salt production was the main activity at Eleanor Betty.

#### Frances, Cierra (Linander)

Pondering the Problematic Palma and other Portable Sculptures

This presentation examines problems in object typology surrounding Classic Veracruz sculpture. The palma object type has remained anomalous throughout the years despite being linked to the ballgame and other stone accourrements, yokes and hachas, found across Classic Veracruz culture. I will examine potential taxonomies for varied forms and styles of the palma object type, as well as question the effectivity of classifying all upright Classic Veracruz portable sculpture types as hachas or palmas.

Greaves, Pieta (Drakon Heritage and Conservation), Tom Guderjan (University of Texas at Tyler, Maya Research Program), Colleen Hanratty (University of Texas at Tyler, Maya Research Program)

Conservation of the Tulix Mul Mural

This poster will discuss the discovery and conservation of a rare Maya painted mural discovered by the Maya Research Program. Discovered in 2012 the mural shows the high status nature of the site. Conservation of the mural was required due to the age and fragile nature of the plaster, it also showed tantalizing glimpses of a multi-coloured illustration hidden behind layers of plaster. During initial

conservation assessment multiple areas of scratched graffiti were discovered on the surface, these included an unknown fish and a human figure, adding to the excitement of the find.

Guderjan, Thomas (University of Texas at Tyler, Maya Research Program), Sara Eshleman (University of Texas at Austin), Samantha Krause (University of Texas at Austin), Justin Telepak (Maya Research Program), Tim Beach (University of Texas at Tyler), Sheryl Luzzadder-Beach (University of Texas at Austin), Nick Brokaw (University of Puerto Rico, Sheila Ward (University of Puerto Rico), Fred Valdez (University of Texas at Austin), Colleen Hanratty (Maya Research Program).

Que Linda Vista! The first glance at LiDAR from Northwestern Belize

In this paper, we offer a first look at the results of a LiDAR survey of northwestern Belize performed by the National Center for Aerial Laser Mapping in July, 2016. Three survey blocks were defined – one centered on the site of Xnoha near the Mexican border and another along the Rio Hondo corridor from near its headwaters to Chetumal Bay. The third and largest, covers the sites of La Milpa and Blue Creek as well as numerous ditched agricultural areas. At the time of submission, only the first was available to us and will be the focus of this discussion. In this 40 sq. mile area, we clarified the relationships among known known sites such as Xnoha, Grey Fox and Nojol Nah. We also discovered 2 new plaza-pyramid complexes and enigmatic linear and rectangular features which may relate to land tenure in the Classic period.

### Hanratty, Colleen (University of Texas at Tyler, Maya Research Program), Thomas Guderjan (University of Texas at Tyler, Maya Research Program)

Documenting the K'an Dynasty in Northwestern Belize: a new hieroglyphic panel recovered from the Alacranes Bajo

This presentation will summarize the data recovery form the Maya Research Program's 25th archaeological field season in northwestern Belize. We will discuss a new archaeological site that has been identified in the Alacranes Bajo and its association with a hieroglyphic panel that was recovered in 2016. In addition, we place these findings in context of MRP's current research at the site of Xnoha as well as previous investigations at the sites of Blue Creek, Nojol Nah, Tulix Mul, and Grey Fox.

#### Harrington, Victoria (Louisiana State University), Heather McKillop, (Louisiana State University)

Hip Bones of the Ancient Maya: A Test of 3D Surface Scanning Accuracy

In order to create accurate skeletal records of the ancient Maya, standard settings for 3D surface scanning are essential. A hip bone from a Middle Classic burial at Moho Cay, an ancient Maya trading port in Belize, was scanned to test the visual and metric accuracies of an economical, medium-range 3D scanner (NextEngine®). These well-preserved remains are fragile due to sea-level rise exposure. Three-dimensional surface scanning can digitally preserve these remains. Visual and metric analyses of the dry bone and digital scans were used to determine how accurate the digital records are at high-resolution, mid-level resolution, and low-level resolution settings.

#### Horowitz, Rachel A. (Tulane University), Jason Yaeger (University of Texas San Antonio)

Large Lithic Deposits: Understanding a Lithic Assemblage from Buenavista del Cayo, Belize

Large lithic deposits in the Maya area are most commonly associated with production areas. In the central Maya lowlands, elite tombs commonly have large lithic deposits above burial chambers. At

Buenavista del Cayo, Belize, excavations in the Central Plaza revealed one such deposit. This paper compares the deposit with known lithic production areas in the upper Belize River valley to determine the type of production area from which this deposit came. Understanding the potential sources, of ritual lithic deposits impacts our understanding of the economic organization of lithic production and the ways in which the Ancient Maya viewed lithic debitage.

#### Johnson, Kelsey (Louisiana State University), Heather McKillop (Louisiana State University)

Postclassic Coastal Maya Obsidian Trade: A Case Study at Arvin's Landing, Punta Gorda, Belize

Arvin's Landing is a Postclassic (A.D. 900-1500) settlement located on Joe Taylor Creek, in Punta Gorda, southern Belize. We took a Bruker portable XRF machine to Belize in June 2016 to assay obsidian from Arvin's Landing for thesis research. Here we present results for 162 obsidian items. Most obsidian was from the El Chayal or Ixtepeque sources, suggesting trade from the Maya highlands. Mexican obsidian also is present, typical of Postclassic trade. Our findings place Arvin's Landing in the circum-Yucatan coastal trade of the Postclassic, and tie the community to the nearby trading port of Wild Cane Cay.

#### Kilgore, Gertrude (Texas Tech University), Brooke Bonorden (Texas Historical Commission)

Examining the Archaeological Footprint of Colonialism at Kaxil Uinic Village, Belize

In the wake of the Caste War in the Yucatán (1847-1901), a group of San Pedro Maya refugees established Kaxil Uinic village (ca. 1880-1931) in northwestern Belize (formerly British Honduras). The inhabitants of the village left an abundance of evidence indicating the complex social, political, and economic dynamics of colonial life in Belize during the late 19th century. Building upon initial testing of the site in the 2015 season, we conducted further archival and archaeological investigations at Kaxil Uinic to examine occupation patterns and the nature of interactions between its San Pedro Maya residents and British colonists.

# Kwoka, Joshua (University at Buffalo), Colleen Hanratty (University of Texas at Tyler, Maya Research Program), Thomas Guderjan (University of Texas at Tyler, Maya Research Program)

Symbolism and Appropriation: An Analysis of Blue Creek Cache 37

Situated atop the Río Bravo escarpment in northwest Belize, Blue Creek's monumental site core and the opulence of its ritual deposits attest to the site's status as an independent Maya kingdom throughout the Late Preclassic and Early Classic. However, Blue Creek appears to have experienced a period of sociopolitical reorganization during the Late Classic, where previously centralized authority was redistributed more broadly among the site's elite population. This paper provides support for this narrative through the examination of a ritual deposit (Cache 37) that was recovered from an elite residential group known as the Structure 37 plazuela. Cache 37 contained 22 stemmed, long-blade chert bifaces, a 30cm long laurel-leaf biface, and a tri-pronged, perforated eccentric. A technological analysis indicates that multiple knappers were involved in the production of the bifaces, thus providing rare insight into the processes involved in accumulating items for ritual deposits. Furthermore, the use of tri-pronged eccentrics as implements of human sacrifice is well attested by Classic period monuments and polychrome vessels. This suggests that Blue Creek's Late Classic elite households were utilizing material symbols – and thus invoking ritual practices – typically associated with Maya rulers.

#### López-Finn, Elliot (University of Texas at Austin)

Luxury and Anxiety in the Aztec Empire: The Question of Cacao

The citizens of the Aztec Empire maintained what Sophia and Michael Coe refer to as a "curious ambivalence" with imported cacao: despite its prevalence in everyday life, cacao rarely appears in Aztec imagery. This tension is embodied in the merchant god Yacatecuhtli and his analogue Ek Chuah, who acted as a patron of cacao among the Postclassic Maya. The similarities in these two deities reveal traditions of trade-based communication in this period, but their differences also highlight the disparities as to which visual vocabularies could flourish in foreign contexts. Why did the Aztec minimize cacao in their popular iconography?

#### Lytle, Whitney (University of Texas at San Antonio)

A Diachronic Look at Activities within the Ancestor Shrine of Group D, Xunantunich

Over the past five years, the Mopan Valley Preclassic Project has conducted extensive investigations of the Central Platform Complex of the elite residential unit Group D at Xunantunich. During these excavations numerous phases of construction and evidence of ritual activities have been recovered dating as early as the Late Preclassic and as late as the Terminal Classic. This paper focuses primarily on the site's ancestor shrine and presents preliminary analysis of ritual deposits in the form of caches and burials discovered the 2016 field season and their potential representation of Maya cosmological constructs.

# McCurdy, Leah (University of Texas at San Antonio), M. Kathryn Brown (University of Texas at San Antonio)

Secret Stairways and Sacred Mountains: The Discovery of the Tut Building at El Castillo, Xunantunich

Recent findings at El Castillo acropolis at Xunantunich, Belize include a special building and stairway providing private access to the south-facing vaulted rooms. The platforms that support this stairway were built directly on bedrock suggesting a conflation of natural and built features that symbolize the sacred mountain. Excavations of Tut Building's southeastern room suggest that it may have served as a special place for Late Classic artists and apprentices. In this paper we present the discovery of Tut building and its context within El Castillo to highlight our interpretations of its place within the Late Classic royal court at Xunantunich.

#### McElvaney, Katherine (The University of Houston)

A Bioarchaeological Sample Analysis of 10 Maya Children

This paper seeks to estimate the age at death of a sample population of 10 sub-adults from the Classic Maya, representing possibly privileged individuals due to the burial locations and some inclusion of grave goods. Skeletal age analysis is completed by utilizing mixed bioarchaeological methods. Ages are estimated and mortuary context discussed. Preliminary age patterning shows these individuals were mostly children between one and ten years of age. Use of the age at death estimates determined in this paper could aid in future research and the eventual creation of a population paleodemographic profile for the site at this time period.

#### O'Loughlin, Rick (University of Houston)

Teotihuacan- Is it only an Elite Pilgrimage Site?

Annually throughout Mexico cities, towns, and villages commemorate the feast days of their patron saints and the Blessed Virgin. In Mexico City hundreds thousands of pilgrims come to the Shrine of Our Lady of Guadalupe around and on her feast day of December 12. Archaeological evidence shows that elites may have visited the city of Teotihuacan as early as 200 CE as a means to legitimize their authority. Using cross cultural analysis and Anthropological theory, this paper presents methodology

and study to posit further evidence of not only elite pilgrimage but commoner activity in the Basin of Mexico and beyond.

# Parker, Evan (Tulane University), George J. Bey III (Millsaps College), Tomás Gallareta Negrón (INAH Centro Yucatan)

The Preclassic of the Puuc: Preliminary Excavations from the Village of Paso del Macho, Yucatan, Mexico

Excavations of mounded architecture, the main plaza, and ballcourt of the site of Paso del Macho have established a chronological range beginning in the early Middle Preclassic and ending by the Late Preclassic. The earliest architecture at the settlement includes at least three small raised platforms associated with Ek ceramics, the earliest pottery complex in Northern Yucatán. Following this, the site underwent a major planned renovation, culminating in the construction of eight earth and rubble platform mounds, including a ballcourt. The expansion of the settlement coincided with the introduction of exotic trade items such as jade, basalt, and marine shell.

# Petrozza, Michael (University of Texas San Antonio), Jason Yaeger (University of Texas San Antonio), M. Kathryn Brown (University of Texas San Antonio), Kit Nelson (New Orleans Conservatory for the Creative Arts), Rachel Horowitz (Tulane University)

De facto refuse, termination deposits, and abandonment processes: Contextual analysis of deposits from Group B, Xunantunich, Belize

During the 2016 excavations at Structure B-6 at Xunantunich, we exposed a dense deposit of artifacts in the patio in front of the structure. This deposit sat on top of accumulated sediment and architectural collapse. Through a fine-grained analysis of the artifacts and ecofacts in the deposit and their microstratigraphy, we argue that this deposit was de facto refuse left by people who occupied the group after a period of abandonment. Our analysis more broadly underlines the importance of careful excavation and contextual analysis of these deposits in order to understand the behaviors associated with each one. Such analyses could then form the basis for the creation of behaviorally distinct categories of final deposits.

#### Popovici, Catherine H. (University of Texas at Austin)

Contested Power in Mayapán: The Sala de los Símbolos Solares Mural Cycle

In Mayapán's terminal phase, the Sala de los Símbolos Solares mural cycle was completely covered in stucco, indicating that the exhibited Central Mexican iconography exerted power and significance. At Mayapán the political organization consisted of two ruling families: the Cocom and the Xiu, who at various times during the city's occupation claimed their right to the throne. This defining conflict between elites colors Mayapán's history and is primarily reflected in the artistic choices employed at the site. Central Mexican appropriation was coded in a particular way at Mayapán and symbolized the Xiu family's intention of invalidating the governing multepal.

# Carlos Quiroz (St. John's College, Belize), Yasser Musa (St. John's College, Belize), Delmer Tzib (St. John's College, Belize), Vianny Novelo (St. John's College, Belize)

Ancient History in the Classroom: St. John's College achievements and approach to including the contributions of archaeology in teaching cultural origins at the high school level.

St. John's College in Belize City took a bold step four years ago and dedicated their high school division to developing and redesigning a curriculum for the teaching of history in Belize at the high school level. The purpose of this poster is to highlight the structure of this four year program and the

accomplishments it has made since its launch. In their first year, students are given a survey of Ancient African History and Ancient Maya History, and it is also the purpose of this poster to discuss the essential role Mesoamerican and African Archaeology has played in the successes of this program towards the orientation of students from a young age of the origins of their cultural heritage in Belize.

#### Rivera, Roberto (Tulane University)

#### The Xicaque of Central Honduras

Historically, the Xicaque, along the southern boundary of Mesoamerica, are not regarded as a single people, culture, or linguistic group. This paper explores Xicaque culture as it may have existed before the Spanish conquest and the evidence of contact with Mesoamerican neighbors. It also reconstructs the setting and responses of the Xicaque when they were confronted with Spanish settlers of Honduras at the turn of the 19th c. Furthermore, it postulates the conditions that emerged for the Xicaque and their responses after independence, at the onset of the republic of Honduras.

## Sheumaker, Christian (University of Texas at San Antonio), Laura J. Levi (University of Texas at San Antonio), Sarah Boudreaux (University of Texas at San Antonio)

#### Pathways of the Maya

This paper explores how the ancient Maya constructed landscapes of movement. Our work centers on the site of Wari Camp and its immediate neighbors, located within northwestern Belize's Programme for Belize conservation area. Here we have identified novel kinds of pathways tethered by navigational schema that directly invoke Maya notions of space-time. We apply multiple lines of evidence to develop our arguments, including an examination of pathway markers and navigational monuments using least-cost path and viewshed analyses.

#### Sills, E. Cory (University of Texas at Tyler), J. Jefferson MacKinnon (deceased)

Ancient Extent of Brine Enrichment for Salt Production at the Placencia Lagoon Salt Works, Belize

The Placencia Lagoon Salt Works in southern Belize are reexamined based on 2015 field work, building on previous research by J. Jefferson MacKinnon. The salt works have earthen mounds that are the discarded soil from the process of enriching brine by pouring it through salty soil prior to the evaporation process. The Placencia Lagoon Salt Works are compared with other known salt works including the well-established Paynes Creek Salt Works where earthen mounds are lacking. Analysis of the mounds provides new insights into salt production in the area and provides an indication of the ancient extent of brine enrichment.

#### Smith, Tara D. (Texas State University)

Guided through Creation: The Olmec Dwarfs of La Venta

In this paper I discuss prior attempts to identify the three monumental sculptures at the southern edge of the Formative site of La Venta. I will show how their placement in the site alludes to a cosmological significance based on theories regarding the layout of La Venta as a ritual narrative. These monuments appear to act as signifiers for the ritual at hand. Just as the dwarfs of creation aided the Maize god on his journey to raise the axis mundi, so too do the dwarfs of La Venta act to aid the people on their religious pilgrimage.

#### Stanley, Brendan (Texas State University)

Sacred Mountains of Central Mexico: Comparing Olmec Style Symbolism of the Periphery and the Heartland

The term "Olmec" is generally used to define a formative period archaeological culture and a widespread art style of Mesoamerica. This paper will analyze Formative period symbolism from major sites of Olman and of the Mexican highlands. In particular, it will analyze the generic worship of sacred mountains and its regional variation in highland sites like Chalcatzingo, Oxtotitlán, and Juxtlahuaca.

#### Strauss, Stephanie M. (University of Texas at Austin)

More than Maya: A Reassessment of Mesoamerica's Hieroglyphic Systems as Global Tradition

Writing was invented in, maximally, four areas of the ancient world. As both technology and art, the material practice of writing is a sensitive marker for both linguistic and cultural change. Yet any cursory survey of the scholarship on early writing shows a severe lack of depth in Mesoamerica's inclusion in the field. Where Mesoamerican scripts are described in detail, the (Classic) Maya system takes priority. This paper explores how the world's logophonic systems can shed light on the "minor" script traditions of ancient Mesoamerica (deciphered or not), and how they, in turn, can alter perceptions of scribal traditions worldwide.

#### Tabri, Edward (University of Texas at Tyler)

Forging an Anti-Aztec Alliance: a Review of the Literary Sources

Support from other Mesoamerican nations was vital to Cortes's campaign to topple the Aztec Empire, but how was this support gained? I will present an analysis of the main surviving literary sources including the accounts of Bernal Diaz, Bartolome de las Casas, and Cortes's own letters to King Charles I of Spain. I will also provide analysis of the Native Mexican literary sources, including the famous anthology compiled by Miguel Leon-Portilla and the biography of Cortes's principal native ally, Prince Ixtlilxochitl of Texcoco, written by the prince's grandson.

Van den Notelaer, Dominick (ADC ArchaeoProjects), Aubrey O'Toole (University of Texas at Tyler), Hollie Lincoln (St. Cloud State University), Carlos Quiroz (St. Johns College, Belize), Thomas Guderjan (University of Texas at Tyler, Maya Research Program), Colleen Hanratty (University of Texas at Tyler, Maya Research Program)

Patterns in construction efforts at the Maya site of Xnoha, Northwestern Belize

Consisting of monumental architecture and at least two elite residential groups, public activity at Xnoha centered around three plazas and two shrines, constructed during the Late Preclassic. Since no residential masonry has yet been uncovered that predates the Early Classic, it is hypothesized that perishable residences were originally utilized. By analyzing construction efforts at the Eastern and Western Residential Groups, as well as the site core, this paper argues that Xnoha's inhabitants communally funded the construction of monumental architecture before moving on to residential masonry, and explores the factors that may have enabled them to do so.

# Watson, Rachel (Louisiana Division of Archaeology), Heather McKillop (Louisiana State University)

A Model of Brine Enrichment at the Paynes Creek Salt Works, Belize

The Witz Naab and Killer Bee earthen mounds are part of the Paynes Creek Salt Works in southern Belize, where the vast majority of the sites were submerged by sea-level rise and are underwater. We present stratigraphic evidence from the earthen mounds to suggest they were slag heaps from

enriching the salinity of brine before it was evaporated in pots over fires. Earthen mounds may once have been common at the Paynes Creek Salt Works but were submerged and deflated by wave action.

#### Weaver, Kobi (Louisiana State University)

Chemical Analysis Reveal Activity Patterns at an Elite Maya Residence in Blue Creek, Belize.

In my undergraduate thesis at New Mexico State University, I investigated activity patterns in the elite Maya residence Structure 3, of Chum Balam-Nal, in Blue Creek, Belize, with the Maya Research Program. Plaster samples were collected at 1m intervals in the patio and 3 rooms, resulting in 25 samples. Field testing using LaMotte chemical kits were used for phosphorus and potassium, to test for food preparation and fire. The data were displayed using Surfer11, which revealed elevated levels of phosphorus and potassium in the patio and room 1. The findings indicate that these areas were used for cooking and fires.

### Yaeger, Jason (University of Texas San Antonio), M. Kathryn Brown (University of Texas San Antonio), Erik Marinkovich (University of Texas San Antonio)

Documenting Warfare at the Ancient Maya site of Xunantunich. Belize

Scholars now recognize that activities related to the preparation, execution, and celebration of warfare were a salient part of ancient Maya civilization. Yet, documenting these activities has proven difficult without a comprehensive program of research targeted at uncovering multiple lines of evidence. In this paper we present recent data collected at the site of Xunantunich, Belize, including defensive walls, weapons, and depictions of warfare and sacrifice. We situate this new evidence within the broader political landscape of the Mopan River valley to highlight social and political motivations for warfare during the Late Classic.