ANTHROPOLOGY PAPER ABSTRACTS

CURRENT CULTURAL RESOURCES RESEARCH USACE MOBILE DISTRICT. *MATTHEW GRUNEWALD* AND MICHAEL FEDOROFF, USACE MOBILE DISTRICT. ALEXANDRIA SMITH, USACE MOBILE DISRICT.

The United States Army Corps of Engineers Mobile District is currently involved in archaeological research and compliance throughout its area or responsibility in Alabama, Georgia, Mississippi, and Florida. As part of its stewardship of cultural resources on project lands the Mobile District is ensuring the protection of numerous archaeological sites through compliance with the Archaeological Resources Protection Act. In addition, archaeologists at the Mobile District review military, construction, regulatory, and civil works projects to ensure actions are in compliance with the National Historic Preservation Act. This presentation provides an overview of our robust program.

THE POTENTIAL FOR ARCHAEOLOGY AT ANTEBELLUM SLAVE HOUSES IN ALABAMA'S BLACK BELT. *NATALIE MOONEY*, UNIVERSITY OF WEST ALABAMA.

The Black Belt Slave Housing Survey is an attempt to understand the history and anthropology of the slaves who lived in the Black Belt region of Alabama. Their ancestors make up the largest population demographic of the area, where the archaeology of African Americans has been largely overlooked. This survey focuses on the houses where slaves and their descendants lived to aid our understanding of the daily lives of these subjugated people. Globally, house styles reflect environmental adaptations, cultural values, and class structure. However, the amount of agency available to slaves to shape their private living quarters and home lives is largely unknown. Since the first set of surveys in 2010, UWA students have surveyed a total of 16 different houses across 5 Black Belt counties. Using archaeological, architectural, and archival methods to document these slave houses, we have so far demonstrated that most houses were only repurposed by the freedmen who continued to live there after Emancipation. This ongoing survey is helping us develop an archaeological research design for the investigation and comparison of slave house sites across the region.

OLDOWAN STONE TOOLS AND HOMININ COGNITION: WHAT CAN STONE AGE TECHNOLOGY TELL US ABOUT CONTEMPORARY LEARNING? *BRITTNEY HIGHLAND* AND PHILIP CARR, UNIVERSITY OF SOUTH ALABAMA.

Oldowan Stone Tools and Hominin Cognition: What Can Stone Age Technology Tell Us About Contemporary Learning?

Oldowan stone tools are the first semblances of technology in the story of human evolution available for archaeological study. The invention of the stone tool is considered a major milestone in the human story, because of its far reaching effects on the adaptation of the genus Homo in regards to cognition and learning. These technological abilities will drive the members of the genus Homo to become some of the most adaptable creatures on the planet.

Understanding the evolution of human cognition and pedagogy is invaluable to understanding the emergence of modern human society. Through a series of collaborative experiments, this research will begin to uncover the ways the first hominins learned, shared, and communicated their knowledge surrounding the Oldowan tool industry. These experiments will include contemporary stone knappers sharing the techniques involved in Oldowan production with novice knappers within set pedagogical parameters. These experiments are meant to model possible ways that Oldowan tools may have been produced and understood by early members of the genus Homo. This research intends to uncover how pedagogy has evolved, and create a dialogue on the ways teaching may adapt for the future. This research is ongoing, and preliminary findings will be presented and discussed.

AN INVESTIGATION OF A WALL TRENCH STRUCTURE AT THE THRASH SITE. *JESSICA HELMS*, TROY UNIVERSITY.

The purpose of this paper is to investigate a possible Gulf Formational Period rectangular wall-trench structure discovered during an archaeological excavation of the Thrash site (1PK71) along the Pea River in Southeast Alabama. Though wall-trench structures are typically associated with Mississippian residential structures, archaeological evidence suggests this particular structure could date to much earlier. This discussion will examine the artifact assemblages found on the floor of the proposed structure as well as other features, such as cooking pits found within proximity of the structure in order to give it context within the Thrash site and the Gulf Formational period.

GULF FORMATIONAL LITHIC TOOLS FOUND AT THE THRASH SITE. *RACHEL DALY*, TROY UNIVERSITY.

This paper will analyze the large variety of lithic artifacts present at the Thrash site (1PK71) and place them within the larger context of the region during the Gulf Formational period. Examples of the tools found include a number of point types, modified flakes, specialized core tools, nutting stones, and knives. The sources of the different stone materials are consistent with local and regional quarries with marginal exotic sources present. Contemporaneous artifacts found in relation to the stone tools indicate a relationship with the Poverty Point Culture at the end of the Late Archaic Period. A deep analysis of these stone tools gives valuable insight to how the people functioned on a day-to-day basis during this period of cultural transition.

POTTERY AT THE THRASH SITE. *ELIZABETH GARRETT*, TROY UNIVERSITY.

1PK71, or the Thrash site, is a Gulf Formational site located near the Pea River close to the Pike-Barbour county line. The Thrash site has a diverse range of pottery from the Southeastern United States. The pottery ranges from fiber-tempered, sand-tempered, Dunlap cord-wrapped dowel impressed, punctated, and complicated stamped. The variety of the pottery at Thrash is unique and by studying them, we can look at the cultural influences that affected the inhabitants of the Thrash site.

THE THRASH SITE: AN INTRODUCTION TO A GULF FORMATIONAL SITE IN PIKE COUNTY, ALABAMA. *JASON MANN*, TROY UNIVERSITY.

Excavations at the Thrash Site (1Pk71) began in the summer of 2013, and have continued as a regular summer archaeological field school of Troy University. Over the course of four summer field seasons student excavations have revealed the site to be related to the Poverty Point culture and the transitional period from the Late Archaic to the Early Woodland Stage. Large pits, potential structures, fiber and sand tempered pottery, soapstone vessels, cooking pits, evidence for uncommon cooking methods, and a wide variety of lithic tools have been recovered. This presentation will serve as an introduction the Thrash Site and its importance to the understanding of the prehistoric in the middle coastal plain of Alabama.

CITIZEN SCIENCE WATER QUALITY MONITORING IN NORTHEAST ALABAMA. *STEPHEN TSIKALAS*, JACKSONVILLE STATE UNIVERSITY.

The Jacksonville River Monitors (JRM) is part of Alabama Water Watch (AWW), a citizen volunteer water quality monitoring program with the aim of improving Alabama's water quality and water policy. Adding to the growing body of citizen science literature, this research poses the following questions: (1) how does AWW play a role in Alabama citizen science, (2) what environmental impact does the JRM have in the region, (3) what measures are taken to ensure data quality and organization longevity? Alabama Water Watch (AWW) was established in 1992 as a citizen volunteer water quality monitoring program. This program has established a network of volunteers across the state of Alabama and has catalogued thousands of water sample data state-wide. Analysis of the number and distribution of trained volunteers by the JRM between 2013 and 2016 reveals they have trained over 30 chemistry and 15 bacteriological water monitors. The majority of these volunteers reside in northeast Alabama. The JRM has sampled stream segments in Jacksonville, AL on a monthly basis for 3 consecutive years. Their data indicate overall healthy stream chemistry, but frequent fluctuations in Escherichia coli (E. coli). The sampling methods and water testing materials are all standardized and approved by the Environmental Protection Agency (EPA) to help ensure quality data. AWW also publishes manuals that all volunteers are required to use in the field. Active members of the JRM were informally interviewed to gather information on long-term goals. The JRM is seeking ways to sustain itself into the future. A common problem with citizen science groups is that they tend to fizzle out over time. Being housed at Jacksonville State University provides a constant pool of young scientifically and environmentally minded students to participate in the JRM. The legacy of AWW and need for a training location in northeast Alabama has also aided the JRM in recruiting members from the community. Finally, maintaining two to three committed members in leadership positions has proven essential.

UTILIZING GIS TO GAIN A BETTER UNDERSTANDING OF NATIVE FEATURES IN NORTHEAST ALABAMA: MORTON HILL, CALHOUN CO., ALA. (SITE-1CA671). *JACOB BRAMLETT*, MARK JONES, HARRY

HOLSTEIN AND JOE MORGAN, JACKSONVILLE STATE UNIVERSITY.

Utilizing GIS to gain a better understanding of Native features in Northeast Alabama: Morton Hill, Calhoun Co., Ala. (site-1CA671)

Jacob Bramlett, Department of Physical and Earth Sciences, Jacksonville State University, Jacksonville, Al 36265

Alabama plays host to many archaic sites, leftover imprints of the Native populations that once inhabited the area. Features have been found all across the state, in great variety, including burial mounds, stones walls, animal effigies, rock caches and countless artifacts. This research has focused on the stone structure complex of archaeological site 1CA671, found in Calhoun County's Morton Hill, lying in the foothills of the Appalachian Mountain range. The site has significant amounts of stone walls and effigies. Located on top of a steep incline of approximately 2000 ft ASL, the site does not appear to be practical for agricultural purposes. The question of why the previous inhabitants of the area would have put forth so great an effort in building these stone structures at such an inhospitable location arises. The purpose of our research is to gain a better understanding of the culture of the Natives, how this site was used, and what it provided for the previous populations. Utilizing ArcMap10.2.2 GIS and a tremble unit to map this site has offered a fresh view of the past by helping us create an overhead look for possible symmetry and uses of the area. Based on our observations and with the assistance of resident Archaeologist, Dr. Harry Holstein, we have theorized the possibility of the site in question being used as a spiritual location for the religious practices of the Natives.

STEATITE FRAGMENTS OF THE THRASH SITE. *RAY JEFCOAT*, TROY UNIVERSITY.

The Thrash Site is a Gulf Formational site located in southeast Alabama next to the Pea River in Pike County. The site produced steatite vessel fragments alongside sand tempered pottery sherds, fiber tempered pottery sherds, and poverty point objects. These artifacts found alongside the steatite vessel fragments are consistent with the transition to clay pottery and other Gulf Formational sites.

THE BENEFITS OF PRACTICING MARITIME ARCHAEOLOGY WITHIN ALABAMA. *ROBERT ELMORE*, TROY UNIVERSITY.

Like many states in the southeastern United States, Alabama is full of a large number of archaeological sites, both historic and prehistoric. While a vast majority of these sites and their resources are found on land, a number of cultural materials are currently submerged in rivers, lakes, ponds, and other bodies of water. This presentation will look at the benefits there could be for the state of Alabama if it were to invest more time and energy towards recovering these materials through maritime archaeology. A brief definition of maritime archaeology will be discussed, followed by laws and cases involving submerged cultural resources. The paper will close with the potential knowledge that may be uncovered from the investment, as well as the jobs and potential economic development that may occur throughout the state.

ARCHAEOLOGICAL INVESTIGATIONS OF NATIVE AMERICAN STONE STRUCTURE PRAYER SEATS LOCATED ATOP CHOCCOLOCCO MOUNTAIN, CALHOUN COUNTY, ALABAMA.

***HARRY HOLSTEIN*, JACKSONVILLE STATE UNIVERSITY.**

Along the rugged stony crest of Choccolocco Mountain within the property of the Mountain Longleaf National Wildlife Refuge in northeastern Alabama, Jacksonville State University (JSU) archaeologist have recorded and investigated what they believe to be several loose stone U-shaped wall sacred Native American prayer seat sites. Based upon stone structure morphology, spatial placement, ethnographic stone prayer seat descriptions from several western Native American tribes and southeastern Creek and Cherokee mythology, seven stone structure archaeological sites recorded by JSU contained one or more Native American prayer seats. This paper will discuss the evidence supporting this conclusion.

ANTHROPOLOGY POSTER ABSTRACTS

THE ORGANIZATION OF EARLY ARCHAIC TECHNOLOGY IN SOUTHWEST ALABAMA: AN AGGREGATE ANALYSIS OF 1WN106. *JAMES NORRIS* AND PHILIP CARR, UNIVERSITY OF SOUTH ALABAMA.

The Seed Tick Site (1WN106) is multi-component based on stone tool types with a range of 10,000 - 1,200 B.P. This study provides the first detailed analysis of the Early Archaic, a poorly understood time period in the region, and employs an organization of technology model. The entire collection had to be organized, a site map produced, and the Early Archaic components isolated. This analysis included an examination of the stone tools from a cultural-historical and technological basis, as well as a detailed analysis of flake debris through aggregate and individual flake analysis. These analyses are ongoing, to date results indicate people occupying the site brought a stone toolkit that included non-local Tallahatta Sandstone and chert. These curated tools were used at the site, resharpened, and discarded there. Those discarded tools were replaced by ones newly made using local raw materials, Ferruginious Sandstone and quartz, to manufacture expedient as well as curated tools. Additional analyses will be aimed at testing hypotheses regarding the mobility strategy employed by the site's residents.

EL NIÑO SOUTHERN OSCILLATION AND TORNADO FREQUENCYIN ALABAMA. *TIFFANY DEBOER* AND STEPHEN TSIKALAS, JACKSONVILLE STATE UNIVERSITY.

Tornadoes in Alabama have gained more attention since the devastating April 27th, 2011 outbreak. There has also been an increase in research suggesting greater frequency of tornadoes in a region east of Tornado Alley, named Dixie Alley. Dixie Alley is comprised mainly of the southeastern states, including Alabama. Several studies have addressed the impact of the 2011 tornado outbreak. Extensive research on Alabama tornadoes has also been conducted by the National Weather Service (NWS) office in Birmingham, AL with a database stretching back to 1794. One area not well addressed, however, is the potential influences of El Niño Sothern Oscillation (ENSO) on tornado frequency throughout the state. Analysis of NWS data revealed La Niña years with the greatest mean frequency of tornadoes, followed by El Niño years and then neutral years. In addition, years with exceptional tornado frequency tended towards La Niña years.