

Louisiana  
Archaeological  
Survey and  
Antiquities  
Commission

March 12, 2019 Meeting



The Louisiana Archaeological Survey and Antiquities Commission met on Tuesday, March 12, 2019, at 1:30 p.m. in the 4<sup>th</sup> floor conference room, 1051 N. 3<sup>rd</sup> Street, Baton Rouge, Louisiana.

## **Members Present:**

Dr. Chip McGimsey  
Dr. Heather McKillop  
Dr. George Riser  
Dr. Mark Rees  
Ms. Jessica Diez  
Ms. Kimberly Walden  
Ms. Pat Arnould

## **Members Absent:**

Mr. Ray Berthelot  
Ms. Kathe Hambrick

## **Others Present:**

Dr. Rachel Watson  
Ms. Megan Kenny  
Dr. Valerie Feathers  
Ms. Karla Oesch  
Mr. Mark Hogan  
Ms. Kathleen Bergeron  
Mr. Nathanael Heller

## **Welcome & Introductions**

The Chair, Dr. Heather McKillop, called the meeting to order at 1:35 PM.

All persons at the meeting introduced themselves.

Dr. McKillop made several introductory remarks. She noted that LSU now has a new PhD degree in Anthropology. This degree program will begin in the fall of 2019. The University is providing funding a number of doctoral assistantships to support the program. She also noted on October 17-18, 2019, LSU will host the 10<sup>th</sup> Annual South Central Conference on Mesoamerica. It will be a free event for anyone to attend and/or present.



**MOTION:** *A motion was made by Dr. Mark Rees and seconded by Ms. Jessica Diez, to accept the minutes of the December 11, 2018, Antiquities Commission Meeting. The motion carried unanimously.*

## **Old Business**

### Budget and Division Update

Dr. McGimsey introduced Ms. Karla Oesch as the new Collections Manager for the Division of Archaeology. She comes to the Division from an archaeological consulting firm where she had worked the previous 10 years.

## **New Business**

### Poverty Point Permit Request – Sarah Gilliland (Binghamton University)

Ms. Gilliland spoke via phone and presented a Powerpoint presentation on her proposed research. Her investigation will examine subsistence through analysis of plant and animal ancient DNA. This approach reflects the paucity of faunal remains at the site due to preservation issues. Six cores will sample the various ridges at the site, one core will be taken from the Mound B field, one core from the plaza area, and two cores from outside the site. The goal is to sample likely living areas, non-living areas of the site, and then use the off-site cores as a control on natural or normal ancient DNA frequencies in the sediment. She hopes to characterize variation within the site, as well as between the site and off-site areas.

The samples will be collected using a gas-powered coring device that will enable cores to be collected from the wooded portions of the site. The core barrels will be swabbed with non-local DNA to assess the potential for sample contamination. Cores will be immediately stored in a cold environment to prevent the DNA degradation.

Analysis will also examine the chemical character of the recovered sediments. In particular pH will be examined around each core sample as well as within each core.

BU has a dedicated ancient DNA lab facility with dedicated cold rooms, positive air flow, and UV radiation to eliminate contamination. Samples will be collected for DNA analysis, as well as carbonized materials for radiocarbon analysis. The DNA extraction will employ two different techniques to assess which produces the best data at Poverty Point. DNA samples will be sent the University of California at Santa Barbara for sequencing, and ultimate taxonomic identification.



She is applying for funding to support the bulk of her proposed research but does have funding to initiate the project and demonstrate its validity. This will be critical for securing additional funding.

Dr. Rees asked for clarification that the field cores have to be refrigerated, and would this preclude the use of cores acquired much earlier. Ms. Gilliland replied that it is possible to obtain DNA from older cores stored under non-refrigerated conditions, but that refrigeration provides the best preservative situation.

Dr. Rees asked if there were any prior studies examining DNA from sites of this age and at this latitude. Ms. Gilliland replied that a Mr. Haley researched the survival of Late Pleistocene horses across North America, including tropical environments, up to 50,000 years ago. She also noted other researchers have found DNA in 4-7,000 year old sediments in North America. Dr. Rees asked if her study was continuing the test of the applicability of this approach to archaeological sites. Ms. Gilliland replied there is precedent for DNA to survive in tropical and sub-tropical environments. Dr. Rees then asked if she was going to look for human DNA; she replied that at this point they would not be testing for that marker.

Dr. McKillop asked what would happen to the Poverty Point samples if Ms. Gilliland was unsuccessful in obtaining sufficient funding to analysis them? Ms. Gilliland replied that she would then focus on traditional sequencing which they have the capability to do at BU. She noted that the BU lab has applied for funding to be able to do the shotgun sequencing that she hopes to do via UC-Santa Barbara. So it is possible that she may be able to both approaches at BU. But if limited to traditional sequencing, she would need to lump various animals together rather than search for each individually.

Dr. McKillop asked for the rationale for sampling Mound B and the plaza area at the site. Ms. Gilliland replied that they were primarily looking for something different. These would be additional control points to determine if DNA was distributed in a blanket across the site as a whole, or if smaller, functionally different areas of the site could be identified.

Dr. Riser asked if she was going to look for crustaceans and molluscs. Ms. Gilliland noted that she didn't intend to exclude them, but noted that as she was allergic to them, she didn't always mention them.

Mr. Heller asked about the dating that would be done. Ms. Gilliland replied that she would be taking dating organic samples, not the DNA itself, in order to place her analytical samples in context.

**MOTION:** *A motion was made by Dr. George Riser and seconded by Ms. Kimberly Walden, to approve a permit for Binghamton University to conduct*





*archaeological investigations at Poverty Point World Heritage Site. The motion carried unanimously.*

Presentation on Investigation at LSU Medical Sciences Center – Nathanael Heller

Mr. Heller gave a Powerpoint presentation on the investigations by R. Christopher Goodwin and Associates, Inc., at the proposed location of the LSU Medical Sciences Center. This project was a FEMA-funded project that required a permit from the Antiquities Commission because the project was on state property.

The project area is located just north of the Superdome and just west of the new LSU Medical Center. Area was first historically settled in the 1840s with significant settlement in the 1850s. The property was first examined through a Phase I survey, followed by more intensive Phase II investigations. These efforts demonstrated the presence of intact archaeological deposits across the property (16OR720).

The mitigation excavations focused on two lots, and also examined the construction of the original road that bisected the project area. The investigations examined several brick surface features, at least four privies, and other deposits. One privy had a large number of reconstructable vessels and bottles. There was also remarkable preservation of leather artifacts, including 220 items such as men's, women's, children's, and even infant shoes. The privy also yielded a halbert head and a human mandible; an explication for the presence of these two items is not readily available. There were also a number of baby goat bones, eggshells, and fetal chickens, indicating that the occupants of this lot probably had a small garden and raised animals.

The investigation of the street illustrated that early buildings had awnings that extended out into the public right-of-way, but these were removed by the 1940s. They also found evidence of the sidewalk and drainage ditch along the road, along with some remnants of the road pavement with limestone curbing.

Mr. Heller noted the persistent rains that kept flooding the excavations. He also noted that they exposed numerous tree stumps across each of the lots that reflected the backswamp that existed here before the area was gridded off for the city expansion.

Dr. McKillop asked whether the hospital would be interested in a display of the materials. Mr. Heller replied that as far as he was aware, there were no plans for an exhibit of the materials. The collection will be curated with the Division. Dr. McGimsey noted that during the development of the agreement leading to the mitigation of the site, public outreach is a component of the discussion. However, FEMA as the federal agency doesn't have any control over how the applicant designs their buildings and whether or not they allow for an exhibit.



## Other Business

Dr. Mark Rees announced that the Society of American Archaeology issued a statement about the termination of the Kentucky Archaeological Survey. It reminded him of the demise of the Regional Archaeological Program here in Louisiana. He noted the extensive public outreach that the Kentucky program did. Dr. McGimsey noted that the positions eliminated were primarily involved with their public archaeology program, all of which were grant funded and did not use university funds. It was the University's position that these efforts were not part of the University's mission.

Dr. McKillop also noted that the Society for American Archaeology also recently posted revised guidelines on promotion and tenure. These are no longer focused solely on publications and teaching, but now include public outreach, long-term community projects, and related activities that benefit the field.

Ms. Jessica Diez announced that she is taking a position on Coastal Protection and Restoration Agency and thus will no longer be the Department of Natural Resources representative. She will be replaced by Mr. Mark Hogan.

*Motion: Ms. Jessica Diez moved that the Commission meeting be adjourned. It was seconded by Ms. Kim Walden. The motion passed unanimously.*

The meeting adjourned at 3:15 PM.

