

Aucilla Research Institute Enrichment Class

The Aucilla Research Institute (ARI) is developing a program involving enrichment classes for local high school students. The program is designed to introduce students to scientific research and modern technology by exposure to hands-on activities in both the field and laboratory.

With funding from grants from the William Stamps Farish Fund and the Perkins Charitable Foundation as well as the donation of computers from Surveying and Mapping, LLC (SAM), a high-tech teaching lab (Figure 1) has been set up for the classes in the ARI headquarters in the historic Gerry building in downtown Monticello, Florida.

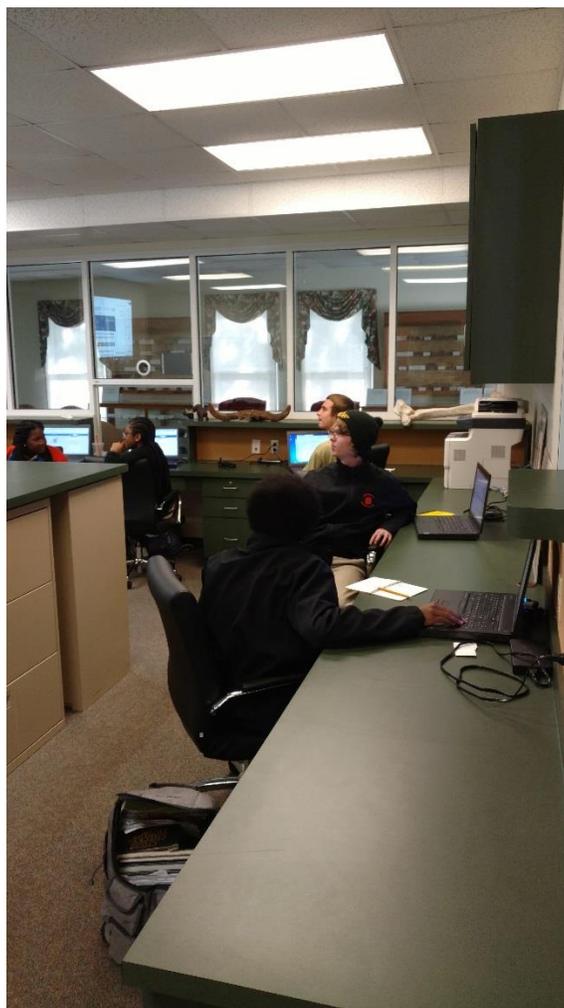


Figure 1 – ARI Teaching Lab

The funding has also allowed an initial pilot course to be conducted to test and demonstrate the concept of the classes. Six advanced students from Jefferson Somerset and two home-schooled students are participating in that class has been designed to introduce the student to two

academic areas – geography and archaeology including an introduction to geographic information systems (GIS) technology. That course, which will include a weekly 3-hour class for seven weeks, involves exploration of a large mound which appears to be of Native American origin based on GIS analysis (Figure 2). The instructors for the pilot course includes Dr. Willett Boyer, RPA, Catherine Dietrick, MS-GIS, David Ward, MS, and Dr. George Cole, PE, PLS who also coordinated the course.

The course began with introductory classroom discussions on local archaeological history and field methods, and introduction to site mapping and GIS. The following two classes involved hands-on field activities including survey and stake out of a sampling grid on the mound, and digging for artifacts at each grid point. (Figures 2-6) Interestingly, the exploration yielded a Putnam projectile point associated with the mid archaic period from between 4000 and 7000 years before present as well as pottery fragments from the Fort Walton culture from a period just 500 – 800 years ago. This suggested that the mound was either occupied for as long as 6000 years or was the location of multiple occupations.



Figure 2 - Students use a survey level to measure ground elevations at the grid points



Figure 3 – Demonstration of techniques for artifact sampling



Figure 4 - Screening for artifacts



Figure 5
4000 to 7000 year-old Native American projectile point found during field classes



Figure 6
Fragment of Native American pottery found during field classes



Figure 7
Drone used for photographing study area



Figure 8
Aerial photograph of study area for use in GIS analysis

The remaining sessions are involving lab activities including the plotting of geospatial coordinates of field data; study and discussion of the significance of the artifacts found. Following that, the students will be using GIS software to prepare high-tech images and maps of the mound and the findings (Figure 9).

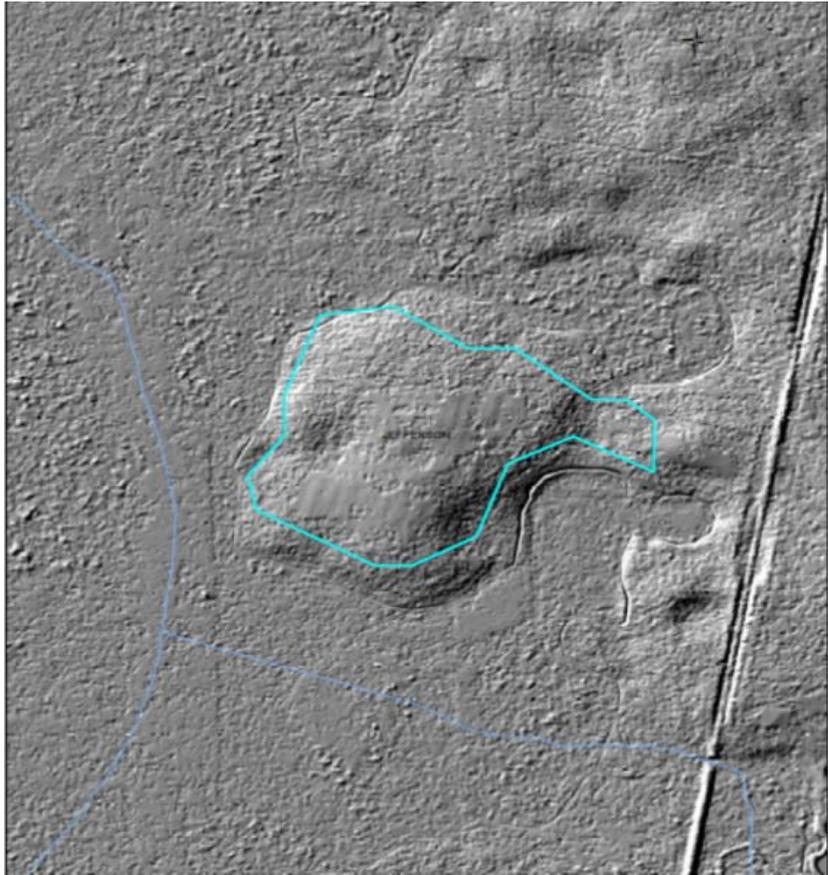


Figure 7
LiDAR view of bare earth at study mound from GIS analysis

Additional classes will be offered starting in the Fall assuming that funding is available. It is believed that by including hands-on activities such as the field surveying and archaeological dig included in the pilot project, will stimulate an ideal learning experience. Possible topics being considered in addition to those covered in the pilot course include a study of the history of the Wacissa Slave Canal which would include kayaking through the canal, and a study of our region's water supply which would include kayak trips to local springs and monitoring wells and discussions with water management personnel. For future classes, we will be seeking a partnership with an institute of higher learning to allow offering dual high school/college credit for some version of these classes.