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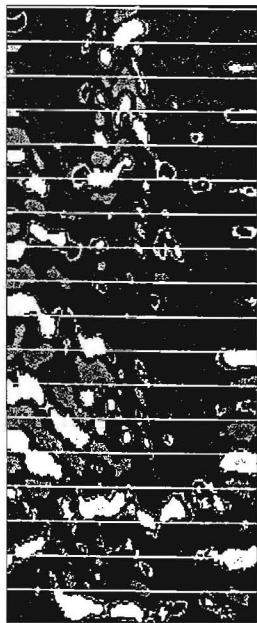
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OSA Receives Grant to Purchase Ground Penetrating Radar

By Jonathan M. Leader

The Office of the State Archaeologist (OSA) received a special grant from the South Carolina legislature in 1998 to purchase a Ground Penetrating Radar (GPR). The unit chosen was the Sir System 2 manufactured by Geophysical Survey Systems, Inc., and is the same GPR used by the Army's Central Identification Laboratory located in Hawaii. Since that time the OSA's GPR has been used in over 100 different locations throughout the state. The use at the majority of the sites has been to locate burials, although the equipment also has been used to delineate foundations for houses, factory buildings, an historic road way, and subsurface pit features. Most notably this has included work at the Citadel's Johnson Hagood Stadium, Pritchard's Shipyard, USC's original President's House, Camperdown Mill, and the Seay burial site.

The rapid growth of residential and commercial developments in the state has placed an increased stress



38CH1049, Pritchard's Shipyard, plantation house wall and builder's trench. (SCIAA GPR File 174- 900TAVD)

on cultural resources. Most notably the impact has been acute on African American slave cemeteries and Native American burials. Traditionally, these sites have

been difficult to identify due to murky or non-existent historical sources, a lack of easily recognized permanent markers, and shifting property lines over time. It is therefore hardly surprising that there have been several instances in the last two years where structures have been placed, or are thought to have been placed, over graves. The majority of these cases have not been intentional. Nonetheless, there are reported instances of bulldozing grave markers in the upstate and the apparent clandestine removal of burial markers in the low country. The demand for GPR analysis of potential development areas has increased exponentially to meet the concerns of landowners and developers who wish to avoid later litigation.

The OSA's Sir System 2 uses a 900 MHz antenna, which provides fine-grain imaging of the subsoils to a maximum depth of four meters. In actual practice, we have found that the maximum usable depth rarely exceeds three meters for most of South Carolina. As a rule of thumb, the lower the frequency the deeper the penetration of the signal into the subsoils. The increased demand for GPR analysis in residential and commercial areas, which often may have as much as two meters of fill, has required us to rethink our configuration. The optimum antenna for use in South Carolina would need to be scalable from 400 MHz to 80 MHz or less. Multiple array antennae are available, but costly. We are currently seeking partnerships and funds for the acquisition of a multiple array antenna that will allow us to better serve the community.

NEW STANDARDS AND GUIDELINES FOR ARCHAEOLOGICAL INVESTIGATIONS APPROVED

By Jonathan M. Leader

The South Carolina Institute of Archaeology and Anthropology (SCIAA), the Council of South Carolina Professional Archaeologists (COSCAPA) and the South Carolina Department of Archives and History (SCDAH) have recently completed an update of the South Carolina Standards and Guidelines for Archaeological Investigations (S&G). The S&G was approved by vote of the COSCAPA membership in March of this year by a ratio of three to one in favor of acceptance. Previous S&G had been written by individuals on behalf of the SCDAH with limited input from the archaeologists working in South Carolina.

In 1996, COSCAPA, SCDAH, and SCIAA formed a joint task force to discuss and rework the S&G. The intent was to produce a more meaningful document that addressed areas of concern to the practice of archaeology in South Carolina. This proved to be a difficult undertaking that went through four chairpersons in four years. In the course of the rewrite, the S&G task force was forced to scrutinize the practice of archaeology from both the compliance agency's viewpoint and the perspective of the archaeologist in the field. Resolving the areas of contention required a great deal of patience and skill on the part of the task force members.

A noteworthy addition to the new S&G are the inclusion of technical appendices covering Geoarchaeology, Paleoethnobotany, Phytolith Analysis, and Zooarchaeology. Copies of the S&G are available electronically from the web sites of:

SCIAA (<http://www.cla.sc.edu/sciaa/sciaa.html>),

COSCAPA (<http://www.midnet.sc.edu/coscapa/coscapa.htm>), and

SCDAH (<http://www.state.sc.us/scdah/>);

or, in hard copy from the SCDAH and SCIAA.