

11-2000

## Remote Sensing Survey of Great Pee Dee River to Inventory Underwater Archaeological Sites

James D. Spirek

*University of South Carolina - Columbia*, [spirekj@mailbox.sc.edu](mailto:spirekj@mailbox.sc.edu)

Follow this and additional works at: [https://scholarcommons.sc.edu/sciaa\\_staffpub](https://scholarcommons.sc.edu/sciaa_staffpub)



Part of the [Anthropology Commons](#)

---

### Publication Info

Published in *Flotsam and Jetsam*, Volume 8, Issue 3, 2000, pages 11-11.

<http://www.cas.sc.edu/sciaa/>

© 2000 by The South Carolina Institute of Archaeology and Anthropology

This Article is brought to you by the South Carolina Institute of Archaeology and Anthropology at Scholar Commons. It has been accepted for inclusion in Faculty & Staff Publications by an authorized administrator of Scholar Commons. For more information, please contact [digres@mailbox.sc.edu](mailto:digres@mailbox.sc.edu).

# Remote Sensing Survey of Great Pee Dee River To Inventory Underwater Archaeological Sites

by James Spirek

During November of 1999 the Underwater Archaeology Division in collaboration with Chip Helms, an ART Board member, and other local individuals inaugurated the Great Pee Dee River Survey.

The purpose of the survey is to locate and inventory shipwrecks, landings, and other underwater archaeological sites between Mars Bluff and Cheraw. When completed the survey will have covered more than 58 river miles.

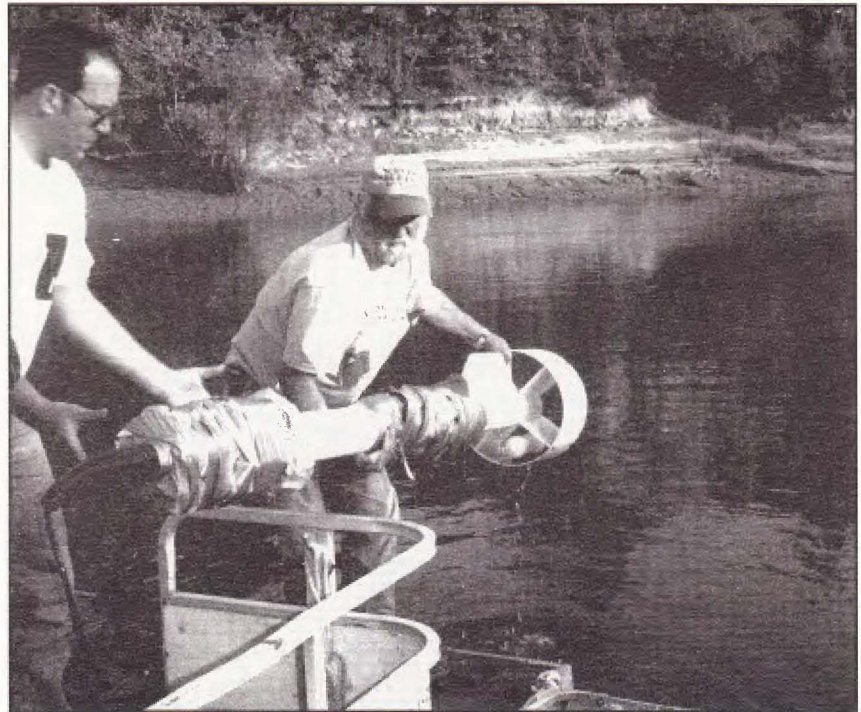
Our research strategy includes using electronic equipment, interviewing local informants, and reviewing prior archaeological research. Our remote sensing ensemble, the ADAP III system, consists of a cesium magnetometer (to locate ferromagnetic metal, i.e., iron and steel), a side scan sonar (to acoustically picture the river bottom), and a fathometer (to determine river depth), all tied to a Differential Global Positioning System (DGPS).

Information drawn from local informants will help to build a database of potential archaeological sites along this stretch of the river. We also drew on information from the state archaeological site files to determine previously recorded sites in and adjacent to the river.

Data obtained from the survey will aid in planning future work in the river and other riverine areas in South Carolina and to inventory sites to the state archaeological site files.

The survey on the Great Pee Dee River was our first deployment of the electronic equipment in a Piedmont riverine environment. Riverine perils included submerged logs, sandbars, rapids, and the twists and turns of the river. All of these obstacles were more or less successfully navigated while towing the costly array beside and behind us.

We have completed surveying



(photo by Chris Amer)

## Landing The Fish

Jim Spirek, left, and Joe Beatty retrieve the magnetometer fish after mapping a section of the Great Pee Dee River bottom. The project, financed by private funds, continues this coming Spring.

three different stretches of the river: upriver from Mars Bluff, around Society Hill, and downriver from Cheraw for a combined total of approximately 24 miles. This leaves us with approximately 34 miles remaining to complete the survey.

Following the field work, we returned to the comfort of the office to post-process and analyze our data. The survey lanes and magnetic data were overlaid on 7.5 USGS topographical maps of the river for visual representation of our work. We are still analyzing the data to identify magnetic and acoustic anomalies that might relate to significant historical or archaeological submerged cultural resources.

We were greatly assisted in post-processing our electronic data into a Geographical Information System

(GIS) format by "Buz" Kloot and Elzbieta Covington from the Center for Manufacturing and Technology at USC, as well as assistance from Chris Gillam and Holly Gillam at SCIAA.

Perhaps the best part about the survey was meeting the many individuals that Dr. Helms rounded up to support and to assist in our venture. There are simply not enough ways to express our appreciation of the hospitality afforded to us by our hosts and the local communities during our first three week phase of the survey. Additional work is slated during the spring of the new year to complete the survey.

Hopefully, during these next survey legs will find the water high, the currents lazy, the weather optimal, and our hosts' arms wide open to receive us back into their homes.