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The Return of the 1998 Allendale Paleoindian Expedition:
The Search for Some Even Earlier South Carolinians
By Albert C. Goodyear

The Allendale Paleoindian Expedition went into the field for a month again in May 1998 with the usual goal of searching for the earliest human beings to live in South Carolina. This program operates by the excavator/volunteers making a tax deductible donation to the University and registering to participate for one or more weeks. About 40 people volunteered this year coming from as far away as Pennsylvania and Texas.

This year my colleague Tommy Charles was back doing his usual fine work excavating and helping figure out the archaeology and stratigraphy. The graduate student supervisors were Sean Maroney of USC's Department of Anthropology graduate program and Grayal Farr of Florida State University's graduate program in anthropology. Without the supervisory help of Sean, Grayal and Tommy, it would not have been possible to carry out such an excavation.

In April, our excavation plans were changed due to high water levels in the Savannah River. The sites we normally excavate on Smiths Lake Creek are on the active floodplain of the Savannah. However, they were effectively submerged due to river levels related to uncommonly high rainfall this winter. Accordingly, the excavation was moved to another Paleoindian quarry site at a higher elevation known as the Topper site, 38AL23. Excavations there by SCIAA in 1985 and 1986, revealed a normal Holocene prehistoric archaeological sequence beginning with 15th-century Mississippian and extending back to a probable Paleoindian occupation.

Several 10,000-year-old Taylor side-notched projectile points have been found at this site ranging in depth from 70 to 80 cm below surface. From about 80 to 100 cm, chert waste flakes, cores, unifacial tools, and broken bifaces are found which are assumed to be Paleoindian. After about 100 cm, lithic artifacts essentially cease. This sequence is predictably found within the first 100 cm of the site everywhere we have dug including the eight 2-by-2-meter units excavated this year.

The geological context of the site is that of a bench parallel to a hillside with chert naturally outcropping at the hill crest. Given the local topography, colluvium and slope wash are suspected to be the primary agents of sediment transport and deposition. With recent finds in South America and even in North America of pre-12,000 year old cultures, it was decided to test for the existence of what may be "Pre-Clovis" archaeological remains below the normal upper meter of stratigraphy. Much to our surprise, recognizable chert artifacts and a possible feature were encountered from 130 cm to 210 cm below surface, substantially below what is suspected to be the fluted point level (90 cm - 100 cm). Excavations stopped at 210 cm because of a rising water table. The sandy sediments were virtually all water screened through window screen, yielding numerous small flakes and occasional lumps of charcoal which have been saved for radiocarbon dating.

While some of the small (< 1 cm) flakes of chert may be natural occurrences washed down from the chert source up the hill, many of them are clearly humanly created and a number of larger (> 3 cm) worked pieces of chert were also found. Some of these chert tools include a small projectile point and a possible notched blade. These are certainly the earliest known Paleoindian artifacts in South Carolina.

Volunteer excavation crew, 4th week, at the Topper site. (SCIAA photo)
Kenn Steffy makes a deep measurement in the pre-Clovis levels of the Topper site. (SCIAA photo)

chert were found. These include two prismatic blade fragments, a tip of an early stage biface, a retouched flake tool, a possible graver, and two large cores. A feature-like cluster of about 20 rocks was found lying clumped together on a common level at 180 cm below surface. The rocks were lumps of limestone typical of chert cortex but two of the rocks were quartz river cobbles, one with a fractured end. Such an array of rocks would normally be regarded as a cultural feature if it were found within the Holocene age archaeological levels at this site.

The project soil scientist, Dr. John E. Foss, inspected the profiles at the end of the season, evaluating the sediments for paleosols. Very little pedogenic development occurred in the upper 200 cm, which is characterized by coarse sands. From 20 to 60 cm below surface a weakly developed B horizon (Bw) can be seen throughout the site. Below this, no soil development was detected until about 240 cm where an ancient B horizon (Bt) 80 cm thick was encountered. Foss is of the opinion that a paleosol of that thickness would require some 7,000 years to develop.

Presently, we are working on getting the charcoal identified and radiocarbon dated, which was recovered by window screening each 10-cm excavation level. Small bits of charcoal were recovered in virtually every 10-cm level, although some levels clearly have more than others. Radiocarbon dating of these charcoal fragments is our only means of determining the age of the associated lithic artifacts recovered in the lower levels. Carbon dating will also be useful for assessing the stratigraphic integrity of the sand deposit from 100 to 210 cm below surface. At least three dates per excavation unit are needed to evaluate whether the charcoal fragments and thus the sands are in proper stratigraphic order. Due to the small sample sizes, Accelerator Mass Spectrometry (AMS) radiocarbon dating will be necessary. It is relatively expensive to date small samples such as these since each AMS date costs $595. Donations are currently being sought in order to obtain six radiocarbon dates for the lower levels.

Whatever the radiocarbon dating results, it is clear that chert objects of definite human manufacture have been found more than a meter below Taylor points which are known to date about 10,000 years old. Needless to say, we are eager to obtain radiocarbon dates for these levels. At the conclusion of this year's excavation, we were only able to excavate six square meters to the 210-cm level. More area will be hopefully opened up next year to increase our sample size of artifacts from these lower levels.

This year we had an extra good share of fantastic volunteers, guests, and well-wishers. Dr. David Anderson and his wife Jenalee gave the dig a big steak cookout party at the campsite this year since their historic home in Williston was being renovated. Jenalee provided entertainment by giving rides in her BMW Roadster. David donated enough ribeyes to make all the chickens at Chic Filet happy. The Archaeological Research Trust of SCIAA had a social gathering during the second week including a BBQ and site tour. Over 50 people attended the dinner which included folks from Allendale County who are interested in archaeology.

The volunteers this year worked extra hard and provided their usual positive attitude toward the mission of the project. Without their financial donation, digging, and screening there would be no excavation.
1998 Allendale Volunteers

First Week
Darrell Barnes, Columbia, SC
David Butler, Winter Springs, FL
Sallie Connah, Charleston, SC
Sue Kane, Charleston, SC
William Larson, Santee, SC
Richard Zink, Santee, SC

Second Week
John Conners, Waco, TX
Amy Giles, Seneca, SC
Berne Hannon, Taylors, SC
Sue Kane, Charleston, SC
Ed Mann, Aiken, SC
Clayton Parham, Latta, SC
Dennis Spirek, Springfield, VA
Kenn Steffy, Sumter, SC
Katherine Stribling, Columbia, SC

Third Week
Bob Cole, Hopkins, SC
John Conners, Waco, TX
Virginia Culp, Mountain Rest, SC
Susan Hollyday, Nashville, TN
John Moran, Hilton Head Is., SC
Terrell Murphy, Macon, GA
Jeff Sellers, Pelzer, SC
Alison Simpson, Greenville, SC
John Simpson, Greenville, SC
Gerrie Sinners, Kiawah Island, SC
Kenn Steffy, Sumter, SC
John White, Winnsboro, SC

Fourth Week
Stephanie Bennett, Wallingford, PA
Steven Bennett, Wallingford, PA
John Conners, Waco, TX
Paul Constantino, Watertown, MA
Don Gordon, Rock Hill, SC
April Gordon, Rock Hill, SC
Susan Hollyday, Nashville, TN
Kenn Steffy, Sumter, SC
Scott Thompson, Augusta, GA

A number of people also need to be thanked for making this season such a success. The Clariant Corporation, owners of the Allendale sites, are especially thanked for letting us come again this year and use their wonderful recreation facility for our campground. Mike Anderson, Director of Human Resources, and Dan Packer, Plant Manager, are thanked for helping us in so many ways. John Thompson's work with the backhoe was as usual of great help. Lola Brooker and her family of Brooker's Restaurant in Barnwell catered our food again this year with many crew members gaining weight. Daryl Miller came each week and took his usual great photos of everyone and the site. Professor Doug Williams of USC's Honors College and Department of Geology brought his Maymester students for a visit, and Doug gave an exciting lecture on the work they have been doing with paleoclimate at Lake Baikal in Siberia. Dr. Barbara Purdy, Professor Emeritus at the University of Florida, visited the site with her husband Hank and delivered a fascinating lecture on heat treatment of chert. Chris Gillam, Ph.D. student at USC in the Geography Department, excavated and gave a stimulating lecture on his dissertation research with Paleoindian migration models for the western hemisphere.

Plans are being made to go again in May of 1999. Obviously with the prospect of pre-Clovis remains present at the Topper site, the choices for excavation sites just got more complicated. Anyone interested in going on the Expedition next year, please contact Dr. Al Goodyear. It is not too early to pre-register.

Funds Needed for Radiocarbon Dates and Lab Analysis

If anyone is interested in helping support the Allendale project, funds are needed for AMS radiocarbon dates and to support students in the laboratory. We are hoping to get six AMS dates on the charcoal from the deep layers. All donations are tax deductible and checks should be made payable to USC Educational Foundation in care of Al Goodyear.

Al Goodyear explains excavation to members of the ART board and other distinguished visitors touring the Topper site in May. (SCIAA photo)