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The 2001 Allendale Paleoindian Expedition and Beyond
By Albert C. Goodyear

As reported in the last issue of Legacy, the Expedition returned to the Topper site with over 100 registered guests and excavated a large 5 by 10-meter unit adjacent to last years' pit. The excavation lasted five weeks from May 1-June 2, 2001. The donor-volunteers are the heart, soul, and muscle of our program, and without them we would not be able to conduct such large-scale excavations. These enthusiastic, hardworking people are listed by week at the end of this article. To all of them and those of previous years I give a hearty thank you.

In order to dig safely at depths of 2.0 meters, a 5 by 10-meter unit was opened and excavated to a meter below surface. At that point, the unit was reduced to a 4 by 8-meter unit and taken down to the Pleistocene terrace. Counting last year's 4 by 8-meter unit, that makes a total of 64 contiguously excavated meters in the pre-Clovis zone. Excavation in the upper meter produced the usual diagnostics of cultural periods known at Topper starting with Mississippian, Woodland, and Archaic components. One unusual discovery this year was that of a substantial so-called "MALA" lithic industrial feature. MALA is an anachronistic acronym created for an Archaic discovery by Ken Sassaman at the Pen Point site on the Savannah River Plant. It stands for "Middle Archaic-Late Archaic" in recognition of its chronological ambiguity. At the nearby Big Pine Tree site, a site known for its rich MALA occupation, charcoal from what must be a MALA midden was dated from 4,250 to 5,000 years B.P. At Topper an unusual concentration of 14 projectile points, over 100 whole and broken preforms, and sheets of thermally altered flakes from biface manufacturing were found, primarily in the eastern end of the block. In the five previous seasons of excavation, only a few MALA points were found emphasizing the richness of this year's lithic feature. Late Archaic stemmed points, which follow MALA in time, are characteristically rare at Topper. In Figure 1, MALA points are shown on either side of a Late Archaic stemmed point illustrating the difference.

This year in the block excavation we recovered three Taylor side-notched points in situ. Counting one found in the adjacent block unit from 2000, a total of four Taylor points have now been recovered from the blocks, all from the 70 to 80 cm below surface level. Taylor points date from about 11,000 to 12,000 years ago. Examples of Taylor points excavated from Topper are shown in Figure 2. Numerous well-made bifacial tools are associated with this Early Archaic horizon including some large hafted forms. One interesting pattern that has been building over the various excavation seasons is the relatively frequent occurrence of so-called eggstones. These are small ovoid stones about the size .
of a hen's egg that have been smoothed to an ellipsoidal shape with a dimple ground in the top. It has been speculated that they may have functioned as bola stones for the snaring of game. A total of four eggstones have been found, two in the Early Archaic level, and two from backhoe spoil. One was made of magnetite. They appear to be associated stratigraphically with the Taylor side-notched point at Topper. Below the Taylor horizon exists another 10 to 20 cm of occupation considered to be Clovis based on the diagnostic biface preforms. No Clovis blanks or preforms were observed this year.

At 100 cm below surface the 5 by 10-meter unit was narrowed to a 4 by 8-meter unit in order to excavate the pre-Clovis levels. These were dug in the usual 1-meter squares in 5 cm levels screening through 1/8 inch mesh. This year several more obvious flake tools were found including a pattern that is building with what we are calling bend-break tools. These burin-like implements are created by snapping thin flakes by percussion on wood or stone anvils. Using Allendale chert flakes, a small quartz hammerstone, and a wooden anvil, Kent Steffy has been able to reproduce bend-break tools like those from Topper with a high degree of control. This tool form is turning out to be one of the most common stone tools in the Topper pre-Clovis assemblage. Examples are shown in Figures 3 and 4. Some of the flakes have three and four discrete breaks on their edges often forming 90 degree angles. Bend break and radial break tools have previously been recognized in Folsom and Clovis sites in the West. They make excellent burins with their chisel-like tips and could also be used as graving tools. In his initial examination of Topper artifacts, Marvin Kay found graver wear on two bend break tools. The strong presence of burin-like tools and gravers implies the production of organic technologies made from antler, bone, wood and ivory.

Besides these tools, in the pre-Clovis zone more of the spatially clustered chert concentrations were found and mapped as features.

![Figure 3: Smaller variety of bend-break tools from the pre-Clovis zone at the Topper site. (SCIAA photo by Daryl P. Miller)](image)

In order to better understand how this chert was worked by pre-Clovis peoples, two primitive technology experts were brought in to work the natural chert cobbles into tools like those from Topper. Steve Watts of the Schiele Museum of Natural History in North Carolina and Scott Jones of Prehistoria Media of Georgia came for two days in October and performed experiments with flintknapping. As no large hammerstones have been recovered in the pre-Clovis zone, they had to solve the problem of how to reduce the cobbles and boulders into knappable pieces. Large flakes with bulbs of percussion are rare in the pre-Clovis zone indicating that curated hard hammerstones were also unlikely. They solved the problem rather easily by placing cobble-sized pieces of cortical chert on boulder size anvils and smashing the core with another cobble (Figure 5). This produced the familiar multifaceted flakes and chunks of chert that we see in the Topper material. They showed that flat, bulbless flakes could be quickly and easily produced by this method. They then took the flakes and made the bend-break tools by striking them with stone and antler hammers over wood and stone anvils. Interestingly, the concentrated piles of cortical debris created by this smashing technique (Figure 5) resembled the concentrations of cortical and chert clusters we have been seeing in the pre-Clovis zone at Topper.

Some progress was made in the geochronology of the Topper site this year. While no organics suitable for radiocarbon dating have been found in the pre-Clovis zone nor in the Pleistocene terrace beneath, organic carbon was found this year in a backhoe trench underneath the block (Trench 14). At 4.25 meters below surface, which is just underneath the Pleistocene terrace, Tom Stafford obtained a date that was at least 45,700 years B.P. (CAMS-78602).

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Based on his dating of various fractions, the sediments are at least that old and in all likelihood past the range of radiocarbon dating. At 5 meters below surface in the same trench, the backhoe encountered black organic-rich gumbo clay with plant remains remarkably well preserved. There were hickory nuts, grasses, pine needles, bark, a twig with a bud on it, conifer bark and wood. Two of these macro-fossils were dated by Tom Stafford at 54,000 and 55,000 years B.P. indicating they too were C14 dead. Several gallons of this black fossil-rich clay have been saved to analyze for plant remains and pollen.

As previously mentioned in Legacy, South Carolina Educational Television has taken on the Topper site discovery as a project. Filming by Steve Folks of ETV has already begun. They recently recorded the South Carolina geologists and their students taking vibra-cores from Topper and nearby marshes. They also covered the experimental flintknapping activities of Scott Jones and Steve Watts. Many of you know Steve Watts as the “lone Palaeolithic Hunter” from the Lantern Tour of ASSC’s Archaeology Festival. What is not generally known is that Steve was a consultant on Tom Hank’s movie “Castaway.” Instead of figuring out how to open coconuts with ice skate blades, we just wanted him to open up Topper chert boulders and make burins. Steve was good enough to dress in his best Pleistocene skin garb for the ETV camera (Figure 6). Some re-enactment images such as these may be used in the ETV program to help create a sense of humanity in the Pleistocene at Topper. The ETV program is expected to air sometime in the fall of 2002.

The next big thing with the Topper site research will be the Allendale-Topper Site Conference—Ice Age Man in South Carolina. This will be an archaeological conference held for the public January 25-26, 2002 on the University of South Carolina campus. The flyer advertising this conference with registration information is printed on Page 3 in this issue of Legacy. The purpose of this conference is to communicate to the volunteers and donors of the Allendale Paleoindian Expedition plus other interested people the findings with Topper to date. Registration is open to the public. The various scientists who are working on different aspects of the site will be brought in to give public-friendly presentations on their research. On Friday afternoon of January 25th, there will be an open house at SCIAA with a display of the Allendale artifacts recovered over the past five years. That evening there will be a reception near the university campus to meet the scientists. On Saturday, January 26th, the conference will be held all day in the Campus Room of the Capstone. That evening, there will be a banquet and a presentation on our vision to start an Early Man Center here at USC for the exploration and discovery of Pleistocene archaeological sites in the Southeast.

A big thanks is due the supervisors this year who so ably managed the excavation. These include Kenn Stefty, Van Steen, Grayal Farr, David Butler, and Bob Cole. In the field lab,
people who helped make the dig happen for 2001 are listed below.

**First Week**
Sheila Jackson, Greer, SC  
Gerald Koenig, Austin, TX  
Dean Kokenes, Charlotte, NC  
Robert Phillips, Jacksonville, FL  
Henry Wilkinson, Charlotte, NC  
Neill Wilkinson, Charlotte, NC  
Dennis Zeunert, Virginia Beach, VA

**Second Week**
James Brown, Fort Mill, SC  
Andy Byars, Columbia, SC  
Horace Duncan, Augusta, GA  
Nan Faile, Leesville, SC  
Fiona Funderburg, Missouri City, TX  
Margaret Harris, Charleston, SC  
Vicky Hollingsworth, Newnan, GA  
Terry Hynes, Atlanta, GA  
Bill Kaneft, Sumter, SC  
Gerald Koenig, Austin, TX  
Grace & Thor Larsen, Stuart, FL  
Alissa Lee, Mt. Holly, NC  
Nancy Olsen, Newnan, GA  
Charles Olsen, Newnan, GA  
John & Alison Simpson, Greenville, SC  
Alaina Williams, Charleston, SC  
Fitzhugh Williams, Greenville, SC  
Cynthia Yates, Harrisburg, NC  
Dennis Zeunert, Virginia Beach, VA

**Third Week**
Thomas Benton, Charlotte, NC  
Michael Brown, Waxhaw, NC  
Pat Der, Melrose, MA  
Doug Dickerson, Salem, NH  
Descq Dubois, Lake Park, FL  
Kelby Dukes, Marietta, GA  
Nan Faile, Leesville, SC  
Agnes & Curtis Holladay, Fairview, NC  
Marty Howes, Sylvania, GA  
Ann Judd, Charleston, NC  
Laura Jefferson, Melrose, MA  
Judy Kendall, Mt. Pleasant, NC  
Grace & Thor Larsen, Stuart, FL  
William Larson, Santee, SC  
Greydon Maechtle, Winnsboro, SC  
Tony Meade, Charlotte, NC

**Fourth Week**
Elizabeth Allen, Atlanta, GA  
Darrell Barnes, Blythewood, SC  
Thomas Benton, Charlotte, NC  
Kelby Dukes, Marietta, GA  
Saundra Dukes, Marietta, GA  
Robert Foxworth, Tampa, FL  
Janie Franz, Grand Forks, ND  
Sarah Franz, Minneapolis, MN  
Sara Jane Frazier, Decatur, GA  
Roger Hagler, Raleigh, NC  
Kathleen Hayes, Columbia, SC  
Laurence Lilleg, Indianapolis, IN  
Jason Millsaps, Raleigh, NC  
Patricia Morris, Tampa, FL  
Jennifer Norton, East Grand Forks, MN  
Carter Monique Owen, August, GA  
Jamie Palmer, Brevard, NC  
Tom Pertierra, Monticello, FL  
Greg Pfannstiel, Indianapolis, IN  
Jeanne and Sam Pritchard, Roanoke, VA  
Darryl Wally, Pittsboro, NC  
Connie White, Atlanta, GA

**Fifth Week**
Deby P. Adams, Charlotte, NC  
Rebecca Coomer, Greenville, SC  
John Cooper, Valle Crucis, NC  
William Covington, Southern Pines, NC  
Danna Crump, Yulee, FL  
Cynthia and Hal Curry, Charlotte, NC  
Carla Daws, Athens, AL  
Julie Elam, Columbia, SC  
Kevin Gallagher, Brewster, NY  
April & Don Gordon, Rock Hill, SC  
Ann Judd, Charlotte, NC  
William Larson, Santee, SC  
Brian Marcel, Ann Arbor, MI  
Richard McDonnell, Brooksville, FL  
Tom Pertierra, Monticello, FL  
Gary Scrivano, Seymour, CT  
George Storelli, Valle Crucis, NC  
Ted Tsolovos, Chapin, SC  
Helen Vose, Carthage, TN  
Jim Way, Dorchester, SC

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