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Backhoes, BBQs, and B Horizons: the 2002 Allendale Paleoindian Expedition

Albert C. Goodyear
University of South Carolina - Columbia, goodyear@mailbox.sc.edu

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As mentioned in the July 2002 issue of Legacy, the Expedition returned for another five weeks to Topper, continuing to uncover significant information about the history of this ancient site. The excavation lasted for five weeks beginning April 28 through May 31, 2002. Once again, the hard-working donor-volunteers signed up for a week or more of fieldwork and made the excavation pits go down level by level, through the Holocene into the Pleistocene soils. These hardworking folks are listed by week at the end of this article. They deserve much credit for making the 2002 dig such a success.

Like the last two years, a great deal was accomplished in the pre-Clovis zone, plus this year substantial Clovis lithic remains were encountered in two places. Previously, the presence of Clovis at Topper had been established by the characteristic laterally-thinned and end-thinned preforms (Figure 1). In 2002 the Clovis story at Topper got better including the finding of a base of a fluted Clovis point and what is probably a second Paleoindian point (Figure 2). Another exciting aspect of the dig this year, was the presence of the SC Educational Television film crew (Figure 3). SCETV, with a grant from our host Clarant Corporation, came down each week and documented the progress of our excavation (and the Friday night BBQ). The ETV special "They Were Here: Ice Age Humans in South Carolina" had its premier broadcast statewide October 29, 2002.

In order to gather additional excavated materials from the pre-Clovis zone, another 4 x 8 m block was excavated immediately to the east of the 2000 season block. For purposes of safety, a 5 x 9 meter unit was initially opened and dug to a meter below surface wherein the excavation was continued downward as a 4 x 8 m unit until reaching the Pleistocene terrace (Figure 3). Backhoe Trench 5 of the 2000 geoarchaeology study was used as the southern safety trench for the deep unit which provided not only safety but ease of access during the excavation. Trench 5, because of its skewed east-west angle, cut into...
the southeastern corner of the block excavation subtracting slightly from a full 4 x 8 m unit. Thus, counting this year’s block, a total of approximately 96 contiguously excavated square meters have been dug in the heart of the pre-Clovis occupation at Topper.

In the block unit, the plow zone was taken off as a single level and screened. A second level, starting at the base of the plow zone continuing down to 70 cm below surface, was dug as a single level and screened through quarter inch mesh. This produced a few more of the MALA points (now called Allendale points), including a quartz specimen indicating a probable Piedmont connection. Several of these points and over 100 thermally altered bifaces and fragments were found in the 2001 block excavation located immediately south and west of this years block. MALA (or Allendale) hafted bifaces form a dense lithic zone from about 35 cm to 50 cm below surface at Topper, a remarkable archaeological horizon since it probably formed in less than 500 years (see Goodyear, Legacy Vol. 6, No. 2, December 2001). No other diagnostic Archaic hafted bifaces were found this year, other than the MALAs. The hillside ground surface begins to rise noticeably here perhaps making habitation less desirable. The artifacts from the second excavation level were typically debitage and cores related to processing the local chert material.

At 70 cm below surface, the 4 x 8 m grid was re-set for 2-meter units and the remainder of the Holocene was excavated in three 10 cm arbitrary levels to about a meter below surface. Several well-made unifacial tools were recovered in situ as well as a few undiagnostic bifaces which may be Early Archaic or Paleoindian in nature. No Early Archaic Taylor side-notched points were found in this year’s block excavation, although an unusual preform or point was found with a single corner notch. From the adjacent 2000 and 2001 block excavations, a total of four Taylor side-notched points were found in the 70 to 80 cm below surface zone, and a fifth Taylor point base was found this year in the laboratory from the 2001 block, also from the 70 to 80 cm zone. These five Taylor points strongly indicate that the Early Archaic Taylor occupation exists from about 70 to 80 cm below surface in this part of the site. It should be noted that an interesting base of what appears to be a finished lanceolate projectile point was found in situ while excavating level 3 (Figure 2). It was located about 70 cm below surface, which is within the just discussed Early Archaic zone. However, it does not appear to be a preform for a Taylor point owing to its narrow blade width. The base is well thinned and resembles more of a Paleoindian type, perhaps Clovis, although the basal thinning appears to be made by hand pressure and not fluting. It is not ground on the laterals or in the concavity.

In all of the excavations of Topper thus far, no firm evidence based on diagnostic projectile points has been found to indicate an occupation
between Clovis and Taylor. That is, no Redstone-like, Suwannee-Quad or Dalton points have been recovered. Based on current findings, it appears that the Early Archaic Taylor people were walking on Clovis ground surfaces or nearly so. This may explain why some of the Clovis preforms are found in the Early Archaic levels. And, at least two Taylor points from the northern end of the site have been found below 80 cm below surface.

A substantial Clovis occupation was recognized this year in two different locations, including the aforementioned Clovis point (Figure 2). In March, a week-long excavation was conducted on the northern end of the site in two areas around N268 / E134 and N284 / E134. These units were dug primarily to remove the upper meter of Holocene material in order that there might be time to take them down to the Pleistocene terrace during the May excavation. The purpose of these excavations was to test for the presence of cobble and boulder-sized pieces of chert on the northern end of the site lying in a natural state or feature-like concentrations as seen in the pre-Clovis zone of the block excavations. This would have been the “upstream” area during Pleistocene times. In 1999, two 2-meter units were dug at N268 / E132 and N282 / E132, which indicated that no large pebbles or cobbles of the pre-Clovis age chert was present. Excavations were expanded around these units in 2002 to more thoroughly document this absence. In May, because of time limitations, only six square meters were excavated down to the Pleistocene terrace, in the area of N285 / E135, which revealed no examples of chert cobbles.

During the March excavation of the four 2-meter units in the N284 / E134 area, it was obvious that Clovis-related lithic remains were present in dense concentrations (Figure 4). This was based on the presence of several outrepasse' flakes from transverse biface thinning and the base of one biface which had been ruined by an outrepasse’ (Figure 5). An example of a Clovis preform with the characteristic transverse flaking that did not suffer from an outrepasse’ is also shown in Figure 5. It came from the southern units of the March dig in the Clovis zone. Numerous blade-like flakes from early stage blade core preparation were found as well as finished prismatic blades. These run from macro prismatic blades (5-10 cm) (Figure 6) down to small bladelets 20 mm or less (Figure 7). These tiny bladelets have been observed before with Clovis at the nearby Big Pine Tree site. The large, macro prismatic blade shown in Figure 8, was found by a collector in Allendale County, and gives an idea of the potential size of blades removed from the quarries to distant use locations. A few large unifacial tools were also excavated, implements that may have served on-site as hand-held knives or scrapers (Figure 9). This Clovis manufacturing layer has remarkable integrity with the larger pieces of chert debris and tools lying flat and clustered together (Figure 10). In May, another 2-meter unit was excavated as an extension of this 4 x 4 meter unit revealing more of the same technology. In addition to more blades and broken bifaces, the base of a small fluted point was found in situ in the upper part of the Clovis zone (Figure 2). Owing to the width of the
scar and the hinge, it certainly represents a flute. Altogether from the Clovis point to the bottom of the layer, the Clovis horizon is about 20 cm thick.

The stratigraphic position of this material accords well with previous geologic interpretations of Clovis at Topper. Based on the 2000 geology study of the site, it was determined by OSL dating that the base of the colluvial sands were 13,500 years old (KA). Clovis is known to date from 13,000 to 13,500 calendar years. In the accompanying photo (Figure 11), the concentration of Clovis lithics can be seen lying in the base of the pedogenically stained Holocene colluvium, overlying the top of the white Pleistocene alluvial sands. Because of cooler weather in March and greater soil moisture due to winter rains, the color differences between the Holocene colluvium and the Pleistocene alluvium are rather dramatic. The value of these excavations, among other things, is that they place definitive Clovis biface and blade making technology in the base of the colluvium as would be expected for its age.

The other area where significant Clovis lithics were found was in Backhoe Trench 15 (Figure 12). The geology team visited the site again this year, including Dr. Michael Waters, Dr. Tom Stafford, and Dr. John Foss. They needed another backhoe trench to help clarify the stratigraphic relationship between what they had originally thought was an older weathered terrace remnant and the Pleistocene terrace. Trench 15 was dug on the northern end of the site near the N284 excavation. It began at E134 and ran east for 50 meters up the hillside up to 103 m elevation. Such a lengthy exposure clearly revealed that the so-called weathered terrace was in fact a paleosol which separated the Holocene colluvial mantle from the Pleistocene alluvial sediments. The source of the fine translocated sediments for this old soil was an ancient red clay terrace remnant found upslope. Dr. Foss, project soil morphologist, indicated that from 2,000 to 4,000 years of weathering would be needed for this much pedogenic development to occur.

As can be seen in the profile (Figure 12), weathered chert artifacts lie as a bed on top of and within the upper portion of the old red paleosol. Based on numerous examples of prismatic blade core preparation flakes and 'outrpasse' flakes, this zone of lithics is Clovis. It is also situated in the bottom of the Holocene colluvium. Because of the early stage nature of these flakes and cores, they appear to be close to the chert source where Clovis cores were roughed out. Pedogenically stained chert cobbles are present upslope here and are likely one of the chert sources of Clovis peoples. Thus, both in Trench 15 and in the nearby excavations of the N284 area, significant Clovis occupations are present, the former more related to chert processing and the latter with biface

See ALLENDALE, Page 26
and blade manufacture and tool use. Excavations are planned for the 2003 season to systematically excavate these Clovis lithic remains.

The stratigraphy present in Trench 15 (Figure 12) is also further evidence of the antiquity of the pre-Clovis occupation seen elsewhere at Topper. The lower white sands in the profile are Pleistocene Savannah River alluvium, which is the same stratigraphic zone of the pre-Clovis lithic features excavated in the block units to the south. The Pleistocene terrace lies underneath these sands in both places. Going downslope away from the red clay source, the paleosol pinches out and disappears so that the Holocene sands overly the Pleistocene alluvial sands, the normal stratigraphic situation over most of Topper. This intervening red paleosol would add from 2,000 to 4,000 years to the 15,200 KA OSL date which was obtained previously (see Legacy Vol. 5, No. 2, December 2000) at the contact of the colluvium and the top of the Pleistocene alluvium. Although not directly dated, this implies that the Pleistocene sediments could be from 18,000 to 20,000 years old and the artifacts that lie within them. Some small burnt flakes were recovered from the Pleistocene sands in Trench 15. It is hoped that if a large enough piece of burned chert can be found, a TL date might be obtained directly on the alluvium. In the upcoming 2003 field season, we plan to excavate the Clovis material seen in Trench 15 and excavate on through the red paleosol into the Pleistocene sands. If no artifacts are found in the red soil, it would suggest that perhaps there was a long hiatus in the occupational history of Topper from pre-Clovis to Clovis.

Excavations in the Pleistocene sands in the block excavation produced the usual types of lithic materials previously encountered in the 2000 and 2001 blocks. That is, smashed pieces of cortical chert, flakes, and the chert clusters. Any worked pieces were mapped in situ as well as cortical pieces 5 cm or larger. By excavating this way, several examples of the chert clusters were recognized (Figures 13 and 14). As previously seen in the adjacent 2000 and 2001 excavations, these clusters lie on common surfaces but at different levels indicating the clusters were created at different times during the formation of the Pleistocene alluvium. There is no macroscopic evidence that these cortical chert pieces were burned as related to hearths; they continue to look like chipping areas where chert was smashed and otherwise reduced. The sporadic shallow chute channels with pea gravel sized clasts were observed as usual in the alluvium. However, the chert clusters do not evince any linearity indicating that they were neither fluvially formed or deformed. Their sheer size alone eliminates the possibility of them being either smashed or arranged by flood water.

Additional sediment samples for Optically Stimulated Luminescence (OSL) dating were taken this year.
one meter west (E145) of where the original dates were obtained in 2001. These samples will be tested in an attempt to replicate the previous dates. OSL samples were also taken from the pure Clovis lithic layer in N286 / E138, which will allow dates to be obtained in association with Clovis artifacts.

The rest of the summer and early fall were spent working with Steve Folks and Jim Welch of SC Educational Television producing their documentary “They Were Here: Ice Age Humans in South Carolina.” Prior to the weekly filming of the Topper site excavations of 2002, ETV had gathered footage from the work of lithic consultants Steve Watts and Scott Jones as they replicated pre-Clovis core and flake tools. Steve was good enough to stand-in as our own Pleistocene age “Topper Man” in the video, complete with his primitive regalia. In the late fall, they filmed Dr. Doug Williams of the USC geology department and his colleagues from Coastal Carolina University as they obtained vibracores from the Topper site. In January, SCETV covered the Allendale-Topper conference obtaining interviews from key archaeologists. All of this video plus what they got from the excavation this year was melded together in time for the premier statewide broadcast of October 29, 2002. The 27-minute video was shown as part of a one-hour live show before a studio audience with call-in questions from the public. Jim Welch was the host while questions from the audience and phone lines were directed to myself and Dr. Dennis Stanford of the Smithsonian Institution (Figure 15). Dr. Stanford was gracious enough to spend three days at the SCETV examining Clovis lithics from the Topper site as well as the nearby Big Pine Tree site. For the television broadcast, Dennis brought a global perspective to the whole matter of the peopling of the Americas, as he provided various casts of Pleistocene age artifacts from North America and the Old World (Figure 16). All in all, it was a fun evening with lots of audience participation and many follow-up inquiries on how to be a part of the Allendale Paleoindian Expedition. SCETV received a grant from Clariant Corporation to produce this documentary. Clariant is the owner of the Topper site and other important chert quarry-related sites we have investigated in Allendale County over the years. The evening of the broadcast, Clariant President Ken Golder received a plaque from SCETV in appreciation for all their noteworthy efforts in archaeological research and preservation on their property. Mr. Golder promptly passed the award to Mr. Bill Hartford, manager of the Clariant Martin plant, our hosts each year on the Allendale excavations.

As usual we had a very dedicated and hard-working supervisory staff to help make the excavation a scientific success. Returning this year as the Senior Site Supervisor after a six-year absence was Kara Bridgman. Kara worked at Big Pine Tree in 1995 and 1996, then went to Ireland to obtain her masters degree. She is currently a doctoral student at the University of Florida with research interests in Early Archaic peoples of the Southeast. She will join us again in 2003. Kenn (Dragon) Steffy performed his usual logistical-record keeping magic making sure...
equipment, the field lab, and of course the bags and proveniences were all in line. Other supervisors include Bob Cole and Bill Lyles, both, seven-year veterans of the Allendale campaigns, and newcomers John Kirby and Tony Pickering. Chris Gillam, archaeologist with the Savannah River Archaeological Research Program of SCIAA, spent two weeks helping supervise the early occupations of Topper. John White also came for two weeks and assisted in excavations. I am happy to say this entire supervisory staff will return as the starting lineup for the upcoming 2003 season at Topper.

Also, supervising the artifact lab were Bill Lyles, Nancy Olsen, and Bill Larson aided by wife Marian. They kept the washing going making sure all the artifact bags were kept straight. It goes without saying that without these committed and competent folks, we could never manage such a large excavation. Daryl Miller provided his usual great photography of people and scientific shots. During the year at SCIAA, Kenn Steffy oversaw our continuing lab work ably assisted by John Kirby, John White, Darrell Barnes, Bill Larson, and Bill Lyles. They have done yeoman service sorting through great quantities of lithics recovered from Topper.

The eighth annual Paleocarnivore Ball was held in-house this year, as we barbecued turkey and pork roasts at the picnic shelter. T-shirts which said “Rocket Scientist” were awarded to our geoscientists in honor of their valuable work with the Topper site stratigraphy and dating. This social event was memorialized by being included in the ETV documentary. David Hodges of Columbia, SC led two tour groups down to the Topper site as he continues to introduce our work to interested private supporters. Betty Stringfellow and her friends came up from Johns Island with their usual superb picnic they always share with us. The Allendale Historical Society paid us a visit one evening and gave us a wine and cheese reception. Scott voxals after dinner the day we found the Clovis point. That night we sang everything but Kum By Ya.

Other volunteers also helped out beyond the usual way. Ann Judd arranged for airline tickets for some of the geoscientists, Bill Kaneff of Colonial Plastics in Sumter, SC donated the ziploc bags and construction plastic so necessary to our work. Marty Howes arranged for backhoe services at a test site near Sylvania, Georgia, Darrell Barnes of Yesterday’s Restaurant donated Boston Butts for the BBQ, and Tom Pertierra donated computers, “Rocket Scientist” T-shirts, and set up on-line registration services for the program and of course he is the host of our pre-Clovis list serve.

Our hosts at Clariant once again
allowed us to move in for nearly six weeks and as usual made us feel entirely welcome. Bill Hartford, Plant Site Manager, has become our corporate cheerleader, along with Connie Knight in Charlotte. Susan Yates, Human Resources Manager, Tom Pinckney, Head of Security, and John Thompson, backhoe operator extraordinaire, were always ready to help. Thanks also to Ms. Iola Brooker and sister Perry who brought down southern cooked meals each night from their restaurant in Barnwell.

The Allendale Paleoindian Expedition operates by the financial gifts and donated services of many people, particularly the volunteers who sign up each year for a week or more. These people who came on the dig for 2002 are listed below:

**First Week**
Bill Covington, Southern Pines, NC
Starr Davis, Charlotte, NC
Jean Guilleux, Hilton Head Island, SC
Wayne James, Atlanta, GA
Dean Kokenes, Charlotte, NC
Grace & Thor Larsen, Stuart, FL
Charles & Nancy Olsen, Newnan, GA
Janis Rodriguez, Cumming, GA
Carol Tomlinson, Charlotte, NC
Henry Wilkinson, Charlotte, NC
Neill Wilkinson, Charlotte, NC

**Second Week**
Elizabeth Allan, Atlanta, GA
Darrell Barnes, Blythewood, SC
Martha Christy, Winter Springs, FL
Robert Dehoney, Isle of Palms, SC
Martha Tate Doughtery, Charleston, SC
Frank Doughtery, Charleston, SC
Jennifer Gallo, Goldenrod, FL
Vicky Hollingsworth, Newnan, GA
Terry Hynes, Atlanta, GA
Steve Miller, Columbia, SC
Tony Pickering, Darlington, IN
Betty Anne Tate, Columbia, SC
Julia Wester, Snellville, GA
Fitz Williams, Greenville, SC
John White, Winnsboro, SC

**Third Week**
Dale Brantley, Aiken, SC
Stan Cash, Jackson, SC
Mark Eastland, Lawrenceville, GA
Bennett Evers, Chapin, SC
Beth Evers, Chapin, SC
Emily Gibson, Barnwell, SC
Agnes & Curtis Holladay, Fairview, NC
Robert Phillips, Jacksonville, FL
Tony Pickering, Darlington, IN

**Fourth Week**
Adele Barbato, Tolland, CT
Darrell Barnes, Blythewood, SC
Cynthia and Hal Curry, Charlotte, NC
Desca Dubois, Lake Park, FL
Nan Faile, Leesville, SC
Kathleen Hayes, Columbia, SC
Ann Judd, Charlotte, NC
Judy Kendall, Mt. Pleasant, NC
Laurence Lillig, Indianapolis, IN
Tom Pertierra, Greenville, FL
Greg Planstiel, Indianapolis, IN
Tony Pickering, Darlington, IN
Joan & Ernie Plummer, Gardiner, ME
Pat Morris, Orlando, FL

**Fifth Week**
Bill Covington, Southern Pines, NC
Fiona Funderburg, Missouri City, TX
April & Don Gordon, Rock Hill, SC
Tanya Graham, Simpsonville, SC
Marty Howes, Sylvania, GA
Jay Hughes, Dorchester, SC
Terry Hynes, Atlanta, GA
Sheila Jackson, Greer, SC
Ann Judd, Charlotte, NC

**Figure 15**: Live broadcast of SCETV's October 29th premier showing of "They Were Here: Ice Age Humans in South Carolina" with host Jim Welch, Al Goodyear, and Dennis Stanford (SCIAA photo by Daryl P. Miller)

**Figure 16**: Dr. Dennis Stanford of the Smithsonian Institution providing commentary during SCETV's live broadcast on artifacts and adaptations seen in the Old World during the Pleistocene (SCIAA photo by Daryl P. Miller)