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Update on the 2012-2013 Activities of the Southeastern Paleoamerican Survey

By Albert C. Goodyear

Fieldwork commenced in late March of 2012 as usual for the field school at Topper, which we offer the University of Tennessee undergraduates during their spring break. In the week prior to their arrival, several of the volunteer staff helped with a field study being conducted by Dr. Josh Feinberg of the Geology Department of the University of Minnesota who studies magnetism in rocks (Fig. 1). We were interested in him studying the magnetic stability of the Pleistocene terrace sediments using his methodology to see if there was any evidence of natural disturbances that might affect the archaeological stratigraphy. He also took samples to search for the presence of a worldwide event known as the Laschamp Geomagnetic Excursion, which dates around 40,000 years ago. If present, this would be like a radiocarbon date for the Pleistocene terrace, which currently has a date of around 50,000 or more radiocarbon years. To obtain intact samples for these studies, we had to literally saw out the



Fig. 1: Dr. Joshua Feinberg taking sediment samples of the Pleistocene terrace for rock magnetism studies at the University of Minnesota Department of Geology. (Photo by Jean Guilleux)

blocks of sediment in stratigraphic order to be sent to his lab. Not trusting commercial shipping to get them there intact, Rooney Floyd and Tom Cofer rented a van and personally drove them up to his lab in Minneapolis. Jean Guilleux worked tirelessly for several days cutting out the soil blocks placing them in wooden boxes (Fig. 2) sealed with plaster of Paris to prevent cracking. With the help of Derek Anderson, Josh also got samples of the sediments surrounding the Clovis occupation on the Hillside to search for any magnetic disturbances around the Clovis layer. This is a study of the Younger Dryas Boundary (YDB), which is suspected to have experienced an extraterrestrial impact in the form of a comet. In the fall of 2012, an article was published in the *Proceedings of the National Academy of Sciences* by several of us (LeCompte et al. 2012) including a restudy of the Topper site, which replicated the original Firestone et al. 2007 study. The results of Josh Feinberg's studies will be presented at the *Paleoamerican Odyssey* conference in October of 2013 at Santa Fe, New Mexico (See Page 9 in this issue of *Legacy*).

Other geoscience work was conducted by Dr. John Foss who described the soil morphology in the Pleistocene sands and the profiles containing Clovis on the Hillside. Dr. Scott Harris and his geology class from the College of Charleston came at the end of



Fig. 2: Jean Guilleux and Josh Feinberg as the proud owners of the Pleistocene terrace sediments ready to be shipped to Minnesota. (Photo courtesy of Jean Guilleux)

March to take core samples from below our present excavations in the Pleistocene terrace. Specifically, we wanted to know if an unusual black clay layer was present this far east toward the Hillside, a layer that has remarkably well preserved plant remains and pollen. It was found here by the vibra core at the same depth as to the west. If a human occupation was present at Topper during the time the clay layer was deposited, it is possible that wooden artifacts might be preserved. This clay layer where Dr. Harris vibra cored is close to the chert deposits on the escarpment where, if humans were present, would facilitate stone and wooden artifacts being deposited in the clay. During the week-long field school with the Tennessee students, they assisted Doug Sain's excavations in the Pleistocene terrace extending one-meter units to the 50,000-radiocarbon level. They also assisted Derek Anderson who supervised excavations in the Clovis levels on the Hillside. Andrew Weidman, a graduate student at Tennessee, also continued his excavations at a nearby Clovis site (38AL228) in both March and May to increase his excavated Clovis lithic assemblage for his Masters thesis. Andrew

successfully defended his thesis in the spring of 2013 (Weidman 2013).

In May and June of 2012, the annual Allendale Paleoamerican Expedition

was held with a large number of registrations from the public. Among the goals in 2012 were to continue digging deeper in the Pleistocene terrace to recover as many definitive artifacts as possible in the range of the 50,000 depths (Fig. 3). Doug Sain supervised this work, which is part of his doctoral

dissertation at the University of Tennessee. Clovis excavations on the Hillside directed by Derek Anderson continued yielding a large number of Clovis bifaces, blades, and cores in the 4 X 4-meter unit. A relatively large number of formalized unifacial tools were also recovered compared to previous Hillside Clovis units suggesting perhaps a special activity area. Dr. Joe Gingerich (Fig. 4) who visited the dig this year spent a couple of weeks helping out with the Hillside excavations.

The first two weeks of the Expedition were devoted to underwater data recovery from the Charles site (38AL135) on Smith Lake Creek (Fig. 5) with the assistance of the Maritime Archaeology Division's Sport Diver Program led by Ashley Deming and her staff. Similar to the Big Pine Tree site upstream, the Charles site is a multicomponent quarry-related site with Clovis represented by manufacturing rejects such as point preforms and macroblades (Fig. 6). Artifacts from all time periods were recovered including a number of Early Archaic notched points and Edgefield scrapers (Fig. 7). Previous excavations on the remaining land portion of Charles demonstrated that most of the site has collapsed into Smiths Lake Creek. We wanted to increase our sample of definitive Clovis artifacts to confirm this

as another Clovis quarry and related site. Charles is the third Clovis quarry on the Clariant property counting Big Pine Tree and Topper.



Fig. 3: Classic bend break artifact from the Pleistocene terrace with well-preserved chert due to moist sediments. (Photo by Paula Zitzelberger)

Chris Moore, Dr. Randy Daniel, Dr. Joe Gingerich, Dr. David G. Anderson, and Dr. Barbara Purdy, and Tyler Retherford, graduate student of Dr. William Andrefsky from Washington State University. Tyler spent the entire dig with us and was of great help. We have been fortunate over the years to have guest speakers of this quality to provide additional education to our volunteers, support staff, and students.

Laboratory studies with Beth Bell and Joe Wilkinson continued in 2012 and 2013 in preparation for the 2013 international conference in Santa Fe, New Mexico, October 17-19th entitled *Paleoamerican Odyssey* (www.paleoamericanodyssey.com). Myself, along with Doug Sain, Megan Hoak King, Derek Anderson, and M. Scott Harris, have been invited to present a 30-minute paper on the preClovis occupation of Topper. By the time of this conference, we should have completed studies of the various flake tools and cobble cores and tools from both the Pleistocene sands and the terrace below. We are also expecting to

The first week of the Expedition was treated to a fish fry at the home of Mary and Ron Lucas at their historic house in Blackville known as the Maloney House. Ron caught a few hundred pounds of Santee catfish, which he filleted and fried to our great satisfaction. Visiting archaeologists who gave evening talks include Dr.

have the new OSL dates on the preClovis sediments back by then as well. One exciting new development with Clovis at Topper was the radiocarbon dating of charcoal associated with the dense floors of Clovis artifacts on the Hillside. An assay on a charred piece of softwood yielded a date of 10,958 +/- 65 yrs BP (AA100294) or 12,841 +/- 62 calendar years ago. This is a perfect date for the expected age of Clovis in North America. We believe this is the first precise radiocarbon date on associated Clovis artifacts yet from the Southeast. This charcoal sample was obtained by Sarah Walters who is working on her Masters at the University of Tennessee concerning charred botanical remains from the Hillside. Plans are underway to get more AMS radiocarbon dates to replicate this date and see if there might be earlier dates, which could say something about Clovis origins. Funds are being sought for five more dates, which cost \$600 each. For those interested in helping radiocarbon



Fig. 4: Dr. Joe Gingerich consulting with Lorene Fisher during his visit to Topper in 2012. (Photo by Paula Zitzelberger)

date Clovis at Topper these donations would be fully tax-deductible gifts to the University of South Carolina.

Starting in 2013, as we were getting ready to begin signing up people for the May-June Expedition, we received word that Clariant had been sold to SK Capital. We were given permission to



Fig. 5: Dredging operations at the Charles site, 38AL135, in Smiths Lake Creek. (Photo by Paula Zitzelberger)

come anyway in the spring and summer as the transfer of ownership will occur in June 2013. But also in late in January, we received word that Tom Pertierra, who is the Director of SEPAS DSO, had fallen seriously ill. Tom provides the equipment and logistical support to run our excavations and has made himself indispensable to our field operations. In recent years, he has stayed in the camp full time and made things work with increasingly large groups of volunteers and students. Given that there was no way to carry out fieldwork without him, I decided to cancel the spring and summer Expedition. This is the first time since 1996 we have not had an Expedition down to the Clariant sites, so it wasn't an

easy decision. Tom is recovering now at his home in Greenville, Florida, and we hope that he is back with us as soon as he is able.

Where we are now is concentrating on lab work for the preClovis presentation at the *Paleoamerican Odyssey*

conference in Santa Fe, New Mexico using the new labs the College of Arts and Sciences at the University of South Carolina has provided us. Last year, Tom Pertierra set up a fund with the University Educational Foundation known as the Paleoamerican Materials Analysis Fund to receive donations to carry out the backlog of artifact analysis so necessary for cataloging and publishing. Tom made generous contributions to it as have other people that have allowed continuous work through part time staffing. Our plan is to continue lab work through the rest of this year and the next. As this lab gets stable funding that will provide a manager, we hope to have some of the volunteers help out with analysis, as many have

offered to do. Several of the Allendale volunteers have expressed an interest in attending the *Paleoamerican Odyssey* conference being held October 16-20, 2013 (see announcement on Page 9). Besides the 30-minute paper on the preClovis at Topper, at least three other papers/posters will also be presented. Topper should be well represented as an early human site in the Americas.

Thanks to everyone who has helped bring us to this place in the search for the earliest Paleoamericans. Special thanks go to Darrell Barnes of Yesterday's Restaurant in Columbia for donating food stuffs and freezer storage, Bill Kanefit of Colonial Packaging for donating numerous plastic field and lab bags, Reid Boylston of Reid's Food Lion in Barnwell, and Mike Morrow of Hilda Catering. And as we close out a chapter in the history of research at these important sites, we must recognize the very significant role that Clariant Corporation has played since 1996 in sponsoring and in many ways facilitating archaeology on their property. Clariant and Sandoz before that were exemplary corporate partners and stewards. We look forward to working with the new owners, SK Capital, who is forming the company Archroma to carry on the work at the Martin Plant.

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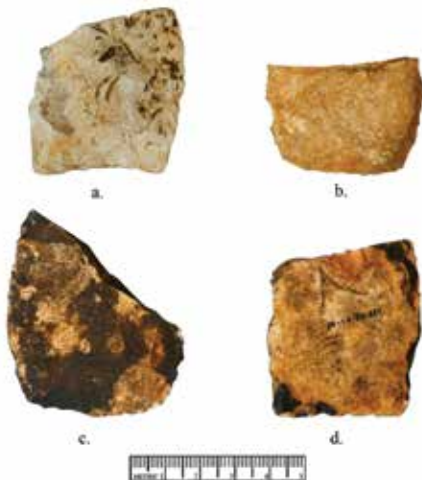


Fig. 6: Clovis point preforms from dredging at the Charles site, 38AL135. (SCIAA photo by Skyler Evans)



Fig. 7: Various Early Archaic projectile points recovered from dredging at the Charles site, 38AL135. (SCIAA photo by Skyler Evans)