

Aucilla River TIMES

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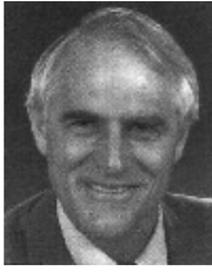
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S. DAVID WEBB PROJECT DIRECTOR

In 1995 The Aucilla River Prehistory Project (abbreviated ARPP) embarked on the first large-scale effort to recover and interpret the rich prehistoric record entombed in the Aucilla River. This does not mean that prior efforts were unimportant: on the contrary, previous expeditions made crucial investments in locating the best resources and in developing practical systems for conducting credible underwater paleontology and archaeology. The accelerated commitment of ARPP in 1995 is evident in such parameters as funding, personnel, equipment, sites worked, and scientific outreach. Some of these points are highlighted here; others are more fully explored elsewhere in this newsletter.

Continued support from the National Geographic Society, Inc., now for the tenth year.

Order of magnitude increase in funding, thanks to the Florida Department of State and the Florida Legislature which provided a Special Category Grant of about \$170,000 for 1995-96 (see "Slate Funds Archaeology Project", page 23). The Committee for Historic Preservation ranked the ARPP among the top ten proposals (and as the highest archaeological proposal) providing strong independent endorsement of this project. Participants in this grant program are invited to help shepherd it through the legislative appropriation process.

On January 10, 1996 following the preservation rally organized by the Secretary of State, nine project members divided into three teams, and stalked the halls of the Florida Capitol, inviting their legislators to support another historic preservation. The nine were Jack Simpson, Wilmer Bassett, Steve Glover, Joe Latvis, Ed Green, Brinnen Carter, Jody Barker, Dean Sligh and Dave Webb. We would like to take credit for elegant demeanor and eloquent persuasion, but it may have been the beautiful trophy cases that Mark Muniz loaded with per feet Paleo point replicas and a fishhook, that made the good impression. In any event, each of our dozen contacts in the Senate and the House promised strong support for the Historic Preservation Program (see accompanying comment from the Secretary of State, page 23).

ARPP warmly acknowledges increased support by private and corporate benefactors (see "Boosters", page 26). Their contributions are especially vital since neither of the two grants above provide for acquisition of permanent equipment. Virtually every critical piece of field equipment upon which our logistics increasingly rely, bears the name of a private or corporate supporter who wisely earmarked it. Rest assured that these gifts receive affectionate care and maintenance.

Never before has the ARPP been able to work so effectively at three major sites. In 1995 we made major advances at Sloth Hole (in the West Run, below Highway 98), fully opened the new Latvis/Simpson Site (in Little River, above Nutall Rise), and extended our largest excavations at the Page/Ladson Site (in Half-Mile Rise). Preliminary indications as to the scientific importance of these operations are given in some of the enclosed articles.

To staff its increased commitment to field work, ARPP made a major effort to recruit new volunteers. Dive logs show that they invested a total of nearly 800 hours of bottom time last year. Their names are listed inside (see "Class of '95", page 17). It is a pleasure to report that the quality of new volunteers was truly remarkable. The new recruits are every bit as good as our old stalwarts, and that is saying a lot!

At last the ARPP was able to place two of its longest-suffering volunteers on the payroll. Jack Simpson became Site Manager and Joe Latvis was appointed as Museum Operations Specialist.

A few years ago, during our Board of Director's meeting at the Ladson House, we were charged by UF Provost Andy Sorensen with involving more students in our project. With stronger funding, we have been able to pursue that challenge. Five outstanding students have now hitched their professional wag-ons to ARPP's star. Although some programs treat graduate students like "cannon fodder" we regard these five as "our franchise". The first three are already enrolled as University of Florida graduate students in Anthropology, studying with Jerry Milanich and David Webb. Brinnen Carter is now writing his doctoral dissertation on the Bolen level at the Page/Ladson Site, (see "The Bolen Surface", page 8). Andy Hemmings is working on his Master's degree featuring Paleoindian material from Sloth Hole (see "Sloth Hole Site excavations", page 7). Andy came here from the University of Arizona in Tucson, one of the country's best programs in Archaeology, where he studied with Vance Haynes among others. And Mark Muniz, who has just entered graduate school, plans to select one of the Little River Paleoindian sites for his research. A fourth student, Matt Muhlbachler, currently a senior at the University of Southern Illinois, has worked with the ARPP both in the field and as a research associate analyzing proboscidean digesta (see "Mastodon Dung", page 12). He has now applied to the University of Florida Zoology Department, and we trust that he will be joining us officially next fall. Last but by no means least, Lance Carlson is a UF junior pursuing a double major in Anthropology and Geography. Lance plays an active role in the ARPP, and S. David Webb will feature some of its sites and findings in his senior thesis.

As the ARPP delves more deeply into the life and times of the first Floridians, it must announce and authenticate its results in scientific and public forums. In 1995 the ARPP substantially increased the number of publications prepared and in press (see "Suggested Readings"). It has also greatly increased the number of public presentations by staff and students. Audiences from Berlin to Detroit and from Monticello to Orlando have been thrilled by the underwater video and splashy discoveries of our team. (See "Public Outreach and Educational Presentations").

ARPP is proud of its 1995 achievements. They place us precisely where we want to be in our five-year plan. Early next century the students now joining the program will be finishing, and some of our old veterans may be seeking honorable retirements. If we maintain approximately the same intense effort, and sustain equivalent levels of public and private support, we may be sanguine about accomplishing most of our goals. The Aucilla River's prehistoric wealth warrants nothing less.

During these next few years the ARPP will begin to alter the emphasis of many of its activities, devoting a greater share of its energies to public outreach, education, exhibits and video. Exploration and primary field work will be balanced by a greater investment in museum curation and scientific analyses. Even next year we are considering inviting volunteers to help in the museum as well as the field. Maturing students will balance collecting efforts with producing publications, as they realize the seriousness of the academic adage, "publish or perish".

Even now the ARPP definitely needs more money for carbon dates; for precise chronology lies at the heart of all prehistory. ARPP's advanced studies will increasingly involve other labs and other experts to fill in the multidisciplinary details that are uniquely preserved in our wealth of river sediments. An essential effort with Joe Latvis' videography and Gene Rowe's photography is to provide a clear and enticing record of ARPP's work both for scientific scrutiny and for public pleasure. These are some of the directions the ARPP is going as we all join in pursuing its destiny into the next century.



C. B. Moore's excavations on the Aucilla River

JERALD T. MILANICH

More than ninety years ago Clarence Bloomfield Moore, a resident of Philadelphia, initiated archaeological investigations on the Aucilla River. In the spring of 1902 and again in 1918 Moore excavated in a Weeden Island culture mound located on the east side of the river said to be about 2.5 miles from its mouth on a farm owned by Mr. B. F. Lewis of Monticello, Florida (I will refer to this mound as Lewis Mound A; on the 1955 Nutall Rise USGS topographic sheet higher ground and an access road are indicated at approximately this location, probably marking the site of the farm). In 1918 following his excavation of Mound A Moore put several "trial-holes" in a second mound (Mound B) located near the first. He also examined other sites along the river.

Born in 1852, Moore spent the first forty years of his life enjoying the wealth and privilege that he inherited from his father. But he also sought adventure outside of his life as a Philadelphia socialite. In 1876, three years after graduating from Harvard University, he made a west-to-east journey across the Andes and then traveled down the Amazon River to its mouth. Moore also participated in big-game safaris and he traveled widely in Europe.

In 1892 Moore turned to a new diversion, archaeology. For the next quarter century he devoted a part of almost every year to excavating archaeological sites in the southeastern United States, initially in Florida on the St. Johns River but eventually along the coasts and major river systems of the entire southeast. In 1918 at the age of sixty-six he ceased field excavations. Moore died in 1936 at home in Philadelphia, leaving a legacy of twenty-one well-illustrated volumes reporting on his excavations.

Throughout most of his archaeological career Moore traveled aboard his steamship the GopheT. Each year an assistant traveled to the region where the next field season's explorations were to take place to locate sites, make arrangements with land owners, hire crews, and the like. Field seasons generally began in November and lasted to late April. The other months were spent in analysis and writing.

With the flat-bottomed Gopher Moore could navigate the waters of the coasts and larger rivers. To gain access to shallower rivers or to cross bars at the mouths rivers Moore and his assistants used small boats carried aboard the steamship. In the 1917-1918 season he replaced these rowed boats with a motor launch. The launch was used in 1918 to explore sites on the Aucilla River north of the Lewis mounds. Moore summarized those later investigations by noting, "A number of other places visited by us on the Aucilla river proved to be only aboriginal dwelling-sites, yielding nothing of interest."

Moore published the results of his 1902 and 1918 Aucilla River investigations in the Journal of the Academy of Natural Sciences of Philadelphia (the 1902 report is in volume XII, part 2, pp. 325-330; the 1918 report is in volume XVI, part 4, pp. 564-567). The following information comes from those reports. Moore's field notes are archived in the Huntington Free Library associated with the Museum of the American Indians (now a branch of the Smithsonian Institution's National Museum of American Indians-NMAI) in the Bronx, New York. The Lewis mounds are in Notebooks 21 and 45.

When Moore first excavated in Mound A at the Lewis farm a large portion of it was covered with a log "stable" and corral probably used in cattle ranching. At the time the 6.5-foot high mound was 64-feet in diameter. In 1918 when he returned to the site the enclosure had been removed, allowing Moore to excavate the remainder of the mound.

Numerous limestone rocks from the size of a human head to irregular masses perhaps 1 foot by 2 feet by 1 foot" lay atop the mound and were found within it. The mound had been constructed in two stages; an upper zone of "clayey sand, black and tenacious, probably from adjacent swamps" overlay a 1- to 2-foot-thick stratum of packed clay. Human burials were found in both strata, all in poor shape probably because of the erosive action of groundwater acids.

In the 1902 excavations three flexed burials were found in the lower Jerald T. Milanich stratum and fifteen in the upper zone. The latter included two "bunched" groups representing eight and four people, respectively. These probably were groups of bundled remains. One flexed interment was present in the upper stratum as were two single crania. Some of these burials were covered by clusters of limestone of rocks. Also found were a chert knife or point and several shell cups with perforations (presumably Busycon cups).

Moore's 1902 excavations centered on the eastern portion of the mound. There he uncovered a cache of fourteen whole or broken Weeden Island I period pottery vessels as well as sherds from other vessels. Six of the items are illustrated in the 1902 report: a dog-head effigy adorno, a Weeden Island Punctated beaker, a Weeden Island Incised turkey vulture effigy vessel, a Weeden Island Incised crested bird effigy vessel, and two Weeden Island Plain compartmentalized vessels.

During the 1918 excavations Moore "dug the mound completely." Skeletal remains representing fifty-two additional individuals were found. Interments again were flexed, bundled, and single crania burials and some were covered with rocks. A shallow grave apparently dug into the ground surface before mound construction contained a child burial. The individual, eight to ten years old, was covered with a large deposit of limestone rocks. Another individual had red ochre next to the pelvis, while two others were interred with shell cups.

A Swift Creek Complicated Stamped squared ceramic beaker with a constricted mouth is illustrated in the 1918 report. Moore notes the beaker and "numerous sherds and a number of vessels, some having parts missing" also excavated that year were the remainder of the pottery cache partially excavated sixteen years earlier.

Another of these cache vessels, also illustrated, is a Weeden Island pedestaled human effigy vessel. The individual depicted wears a headdress that may be the nubs of newly developed deer antlers. On the effigy's back is an open basket or pack; arms are folded across the stomach and the person is attired in a belt or breech clout (or, perhaps, an animal pelt with the head attached; the face bears some resemblance to Andy Hemmings).

Elsewhere in Mound A were "about half a dozen parts of vessels in fragments and piles of sherds from various vessels," chert tools, a fragment of a polished quartz bannerstone, a bone awl, and a sheet of mica.

Mound A is a typical Weeden Island I period burial mound, probably dating between A.D. 400-750. The presence of Weeden Island pottery, an east-side pottery cache, limestone rocks, two-stage construction, and flexed, bundled, and single-crania interments all are characteristic of Weeden Island mounds of that period.

Modern archaeologists probably would interpret the mound as having been used by a single kin group. Most likely the lower stratum M-as a low platform mound on which a charnel house for the storage of deceased relatives bones was built. An initiatory burial was made in the ground surface under the primary mound. Bundles of cleaned bones-skulls and long bones-were later taken from the charnel structure, laid down on the platform's surface, and covered with clayey sand and, at times, rocks. The "black and tenacious" clayey sand may have been a humic zone that had formed on the floor of the charnel house. Over time additional burials were placed on the mound's surface and covered with more clay and occasionally, limestone rocks.

At the time the charnel house was removed and the first burials laid down on the platform, a cache of pottery vessels probably was placed on the east side of the mound. These probably had been used for ceremonial purposes.

The sequence of construction, mound use, human interments, and pottery cache deposit resulted in a typical Weeden Island I burial mound. [For more on the Weeden Island culture, including mounds, see chapter 5 in Archaeology of Precolumbian Florida (University Press of Florida, 1994).]

Moore's excavations in Mound B at the Lewis farm were far more cursory. The mound, "located a short distance from the landing, was a low sand mound blackened by organic matter." Test units uncovered thirteen flexed burials and three bundled burials. No Weeden Island pottery or east-side pottery deposit was found, suggesting the mound may have been similar to post- A.D. 750 Weeden Island mounds. One individual was interred with an S-inch long greenstone celt; other artifacts in the mound were a flat limestone tool 3.5 inches long, a bone awl, a sheet of mica, and several chert tools.

Both of the mounds probably were associated with a nearby village. Moore states "in all directions near the landing at the Lewis Place, the ground gives evidence of former aboriginal occupancy, and the discovery of several objects of interest in it are reported by Mr. Lewis." We might guess that these artifacts were associated with a village midden that was eroded when the area was cleared for the Lewis farmstead.

At least several of the Mound A ceramic vessels are curated in the NMAI's New York branch. An interesting project would be to relocate the Lewis mounds, read Moore's original field notes, and examine the NMAI collections. Perhaps there is information that would help us to better understand the prehistory of the Aucilla River.



Side view: Mound A human effigy (From Moore 1918)

Way down upon the Aucilla River

BY BRINNEN CARTER

Canoes were and still are to some extent the favored means of transporting people and goods into the most remote areas in Florida. I want to give everyone who reads this article an idea of the time-depth of water transport in the New World and the prospects for extending that record with finds from the Aucilla River and from other rivers in Florida. Of course, no archaeological story begins with the discovery of an artifact; it actually begins when the object is originally created. In the case of canoes, every indication is that American Indians of the Southeast constructed them from single logs, hollowed out by a combination of fire and stone tools-until the introduction of plank-built boats.

Barbara Purdy and Lee Newsom (1991) categorized and described the various types of canoes found in Florida bogs, lakes, and rivers. According to them, there are four principle types of mono-hull canoes, conveniently termed Types one through four. Type one canoes (Figure 1) are roughly made. They often have indistinguishable bows and sterns with a fair amount of carbonized wood (charcoal) remaining in the interior. Type two canoes (Figure 2) are made the same way as type one (fire hollowing), but the bow and stern are beveled on the bottom and flattened on the top. They appear to be better finished. Type three canoes (Figure 3) are made in much the same style as the other two, but the bow has a large overhang, which is presumed to help the canoe deal with larger waves and rougher conditions. The final type appears to be made late in the prehistoric period with metal tools. This fourth type is similar to Type two in general shape and configuration. Ages for the canoes range from 5110 radiocarbon years before present (B.P) to several hundred years B.P. (Purdy and Newsom 1991:265-275).

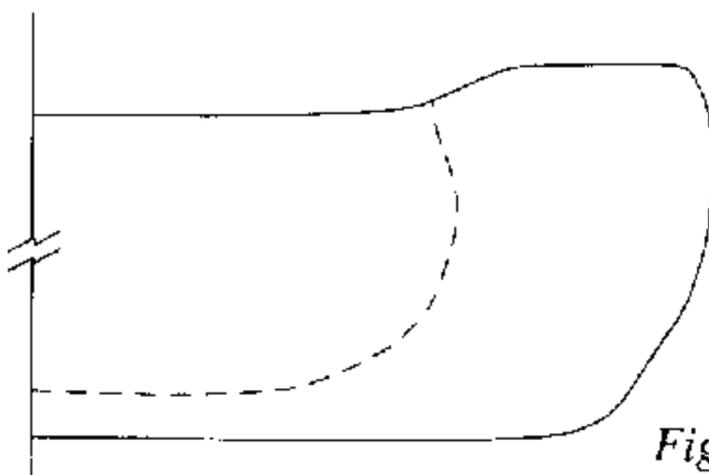


Figure 1.

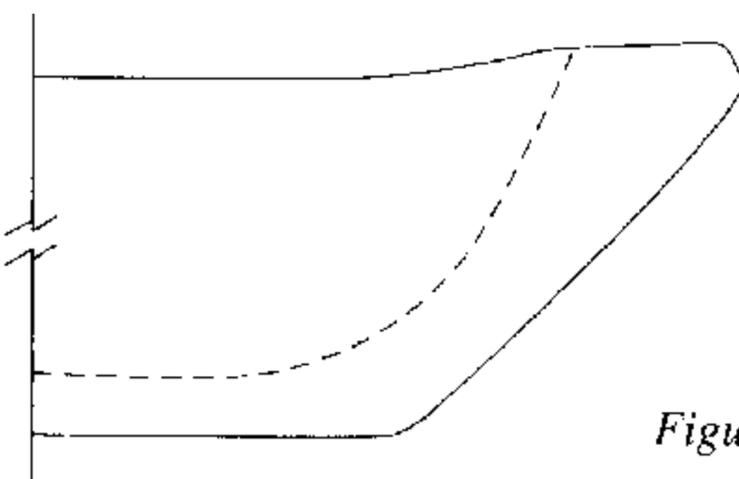


Figure 2.

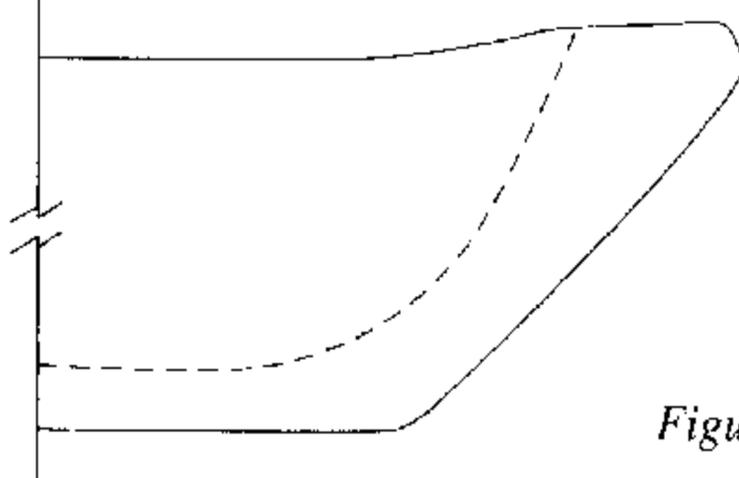


Figure 2.

You might ask why you have just been treated to a brief review of mono-hull canoe types in Florida. Well, in 1993 the Aucilla River Project was proceeding with excavation of the paleosol (see "The Bolen Surface", page 8) that dates to 10,000 years ago. We opened up two square meters of the area to the west of our old Test C excavation in anticipation of finding in-place archaeological materials. The two one-by-one meter units were called Test G and H. After having successfully removed the overburden and documented Unit G, we began removing overburden from Unit H. When we were between 50cm and a meter above the Bolenage paleosol the team ran across a large unidentified wooden object. We needed to remove it in order to successfully document the underlying unit so we carefully sawed the object off at the south boundary of the unit. The removed piece was put in a matrix bag (nylon mesh) and set aside for documentation. We proceeded with excavation of the surface.

When the season was over, we transported the cut-off piece back to the Florida Museum of Natural History. I subsequently drew and sampled it for a carbon date. After several weeks in storage at the museum we decided to repatriate the section and we put it back in the same unit from whence it had come. However, the general configuration of the section had already piqued our interest. It looked somewhat like the end of a Type one canoe. It also appeared to have some sort of burning on the upper surface. Our suspicions were raised enough to spur additional work in the same area the following year. In the meantime, a sample was sent to Beta Analytic (they do carbon dating) and they returned a date of Y960 B.P. +80. An additional sample was sent to Lee Newsom, who identified the wood as cypress, a common canoe-building wood in swampy Florida environments during later periods.

May 1994 was designated as "uncover the 'canoe'" month. By this time we all felt moderately comfortable with designating the large wooden object as a canoe. The results of the May 1994 excavation were inconclusive, however. Indeed, the additional 2m of the object we uncovered was partially cupped on the upper surface and fully rounded on the lower surface, but the other end of it was nowhere in sight. We were increasingly tantalized. You will find a synopsis of the 1994 excavation in the previous *Aucilla River Times*.

May 1995 was earmarked for further excavation of the large wooden object. By this time I had determined that the object rested or intersected the paleosol on which we had found diagnostic Bolen artifacts and had a distinct southward tilt to it. We would need to be extremely careful as we excavated to the south not to disturb artifacts that might be sandwiched between the log and the surface. Excavation proceeded as it normally does, slow but steady. I was privileged to have a crew that was in tune to the amount of work that needed to be done and the limited amount of time we had to do it. The crew was composed of Paul Aughey, Dave Ball, Grayal Farr, Ed Green, Andy Hemmings, Joe Latvis, Chuck Meide, and myself.

We extended the excavation to the south, removing clay layers above the wooden object up to 2m thick. The wooden object lost its canoe-like appearance as we uncovered it and it took on the shape of a large cypress log, about 50cm in diameter. But that's not the end of the story. As we uncovered further and further south, the "log/canoe"-as we now call it-had a unique feature. The entire log/canoe had a large gap in it approximately 4-m from the end we first uncovered. This gap has been interpreted as either cut, as in worked with human tools, or broken. To make matters even more intriguing, the log/canoe continued on into the as-yet-unexcavated underwater sediment bank. At the point it disappears into the bank, the overburden layers are 2m-3m deep. Any additional work on further uncovering the "log/canoe" will require days of using our six-inch dredge to remove these compacted clays and peats.

While the site lies idle, we took a section out of the log/canoe and sent it to David Stahle at the University of Arkansas. He does tree ring dating on cypress in the Southeast (*Taxodium* sp.). We are optimistic that we may be able to collect enough wood from this layer to begin constructing a "floating chronology" of tree ring dates for the region. This will require finding and sampling at least ten cypress logs from this same stratum-not an easy feat. But the potential rewards are large. It would be the first tree-ring chronology from this period (10,500-9,500 B.P.) in the region.

The identity of the "log/canoe" is not yet clear, but the great thing about this type of research is that there is no wrong answer to the question "What is it?" If it is a canoe, we have the oldest one in the Americas. If it is a log, our samples begin to build a tree-ring chronology for a critical period of environmental transition in North America. However, until the other end of the "log/canoe" is excavated, this question remains unanswered. Additional excavation of this fascinating part of the Aucilla River Prehistory Project will continue.

Standby!

Latvis/Simpson site in Little River explored

BY ANDY HEMMINGS

The focus of this year's May/ June field season was the Latvis/ Simpson Site in the lower end of the Little River Section of the Aucilla. Our purpose was twofold: 1). To excavate and sample a 30 foot vertical sediment bank for paleoenvironmental data (and possibly to find archaeological remains as well); and 2). to excavate and collect the remains of a proboscidean embedded in the sediment at the bottom of the 30 foot wall. As it turned out the full month was required just to sample the column of sediment, leaving no time to collect the bone bed at the bottom or excavate the Mastodon or Mammoth stuck in the mud. To accomplish our second goal we scheduled an additional two week foray to the depths in early August. Fortunately, the second effort was enough to reach our goals.

The excavation of the sediment bank was painstakingly slow due to the compacted nature of the clays. Four Marshalltown trowels and countless off-brand trowels made the supreme sacrifice for the effort. In the end we made a stairway just over eight meters deep in eleven 1 by 1 meter steps. Two of these steps individually were over two meters high. For the entire height of eight plus meters we took 4 one liter bulk samples and 8 pill bottle carbon and pollen samples at increments of 20 centimeters (there were additional samples taken when changes in the sediment occurred). This sediment was taken to the Florida Museum of Natural History in Gainesville where it was frozen until it can be processed.

Several samples have been thawed, and organic material has been removed for radiocarbon dating the middle and top of the site. Currently we have two dates. Between the upright tusks a seed of cucurbita pepo was recovered in the straw mat that returned an accelerator mass spectrometer (AMS) date of 31,550 rcybp +240. Roughly two meters above this a piece of wood was dated to just over 25,000 years old. Our expectation is that the sediments up from here will be progressively younger, however, what we are anxious to find is the probable large break in the continuity of deposition. The thought is that six meters of sediment will not be a full record of 25,000 years of deposition. At the moment the story is incomplete and will unfold over the next year or so.

Because we did not reach the bottom of the sediment column in June the exciting work had to wait until August. At the bottom of the bank we surface collected 22 one meter units of faunal, and some cultural, remains that were mostly disarticulated. The artifacts included a Bolen Beveled point and a reworked Simpson point ([Figure 1](#)) (much to our surprise). This is not to say that they are associated with the animals at the bottom. The artifacts, and most of the bones, are removed from their original context! The only clear exception are the tusk fragments that fit onto the tips as they came out of the clay and strawmat. These associated pieces can safely be said to lie in situ. The vertical angle of the tusk tips was measured when they were exposed; they were 5T for the north tusk and 74 for the south tusk respectively. It certainly appears that this individual died face down in the mud. Four other completely unstained juvenile proboscidean bones were recovered, including a humerus and a rib fragment that also stood vertically in the sediment. Further excavation will be quite rewarding because we know of another ten unstained bones protruding from the strawmat and overlying clay layer.

Practically everyone currently with the Aucilla River Prehistory Project was involved in this operation and I would like to personally thank each and every one who helped with a wonderful site that will yield enormous amounts of information about prehistoric Florida for years to come. I would also like to apologize for whistling the "I Dream of Jeannie" theme song every waking moment, however this apology is not extended to Bill Gifford because he made me do it.



Sloth Hole site excavations

BY ANDY HEMMINGS

Below Highway 98 in the Aucilla River is a site that Dick Ohmes collected heavily for many years. (See "Ohmes Ivory Collection") His incredible collection of stone, bone and ivory artifacts (much of which has been donated to the Florida Museum of Natural History) prompted our desire to examine this site thoroughly and decide if it warrants more full scale excavation. This site is of course Sloth Hole (8JE121) where we spent nearly two weeks, testing and surface collecting, split between the June and August field seasons.

In June we relocated the area where we had found tremendous amounts of Mastodon remains during the survey of 1994. This area also included a large number of nondiagnostic artifacts, all of which were laying on a fresh-looking reddish peat. Because of the thick soup of loose sediment and leaf litter we only cleared one square meter and dug a test excavation 20 by 20 centimeters. Radiocarbon dates for samples of wood from 22cm and 69cm below the surface of this stratum came back at 41,000 and 43,000 years before present respectively. Clearly our artifacts are at least vertically deflated, and we were looking in an area that was too old to represent a human occupation. The dates came in prior to our return to the site in August and afforded the opportunity to rethink our strategy.

In August we moved to shallower areas of the relict sinkhole looking for intact sediments, hopefully bearing cultural remains. Three units were excavated in different parts of the site. All contained artifacts in the upper levels above the clay/peat sediments. One unit did contain lithics that were not stained and in fact seem to be from a chert source about half a mile away. Part of the 1996 field season will be spent excavating the immediate area of this unit and developing a thorough map of the entire site.

The area with the 41,000 year old sediment is literally covered with bones and artifacts. While we know this is not a primary deposit it appears that this may be an area that is only vertically deflated. This seems reasonable because the remains of the Mastodon are pretty much articulated, with everything in the right order. When we generate a map that plots all the bone by unit then this should become clear.

We surface collected twelve units in a continuous block above the 41,000 year old area. The artifacts we recovered include: Several Aucilla Adzes; Bolen points; Ivory foreshaft fragments, a broken lanceolate point ([Figure 1](#)); Many varieties of unifacial tools generally associated with paleoindian occupations; A fluted Burin ([Figure 2](#)); many forms of bone pins, including one that may have remains of a mastic on it; and last but not least Terry McKibben found a nearly complete J shaped bone fishhook ([Figure 3](#)) almost three inches long in one of our units.



To date, we have 586 artifacts from this site in the Florida Museum of Natural History. This number includes over half of all academically known worked ivory in the New World. As work progresses at this very rich site it is our greatest hope that intact sediments containing extinct faunal remains and paleoindian artifacts will be found in situ in the sediments. After much deliberation, and some digging, we have two very intriguing areas within Sloth Hole to examine this summer. Lacking a good stratified context this site would still warrant more investigation simply because of the large and varied number of paleoindian and early archaic artifacts that have been recovered to date.

The motley cast of characters who worked at Sloth Hole all deserve a big hug and a cookie. What you will actually get is an extra turn as pond scum if I have anything to say about it. In all earnest the daily circuitous commute to the site and severe blackwater conditions at the bottom make the amount of information we were able to gather all that much more amazing. Thank you all. Let's go find the in situ dirt!

The Bolen Surface

A story of Opal and precious stones

BRINNEN S. CARTER, M.A.

The 1995 Excavations of earliest Archaic levels at the Page/ Ladson Site were an unqualified success. The target was to complete final field excavations for my doctoral dissertation featuring the Bolen Culture as represented by an occupation level on a 10,000 year old paleosol. We survived a hurricane and still accomplished 175% of the season's objectives.

In the research plan for October I indicated that we would excavate a 2 by 2 meter square in the allotted three week period. Because the field crew was well prepared and the equipment performed perfectly, the net result was a full seven square meters. This three-week blitz included the initial exercise of removing loose leaves and intact overburden to get down to the critical levels, and the final steps of detailed mapping and careful recovery of flint, bone, stone and wood artifacts as well as other samples.

As with any successful excavation, much planning and paperwork were done before the season began. Joe Latvis had nailed down commitments from volunteers as early as May for our October-November season, and Jack Simpson had worked out the logistics for feeding and supplying our small army. Knowing that personnel and logistics were covered, I was able to develop a research design in late August, and provide it to Joe and to Mike Faught for further planning and coordinating. Mike's plan for the deeper excavations in the second half of the season depended to a great extent on what I planned for the first half. In mid September I trucked much of the Museum gear up to the Aucilla River. A final trip on September 30th coincided with the arrival of most of the crew at the river cabin for a pre-season greeting and briefing. Joe reviewed the stringent safety procedures; I reviewed the scientific objectives; and we all retired for the evening so we would be fresh for the weeks ahead.

On October 1 we transported and assembled all the equipment at the site. Joe and I made the first dive to determine how much leaf-litter had accumulated since our last work eight months earlier. The river had looked favorably upon us, and the six-inch dredge worked well, for we were able to remove most of the grunge on that first day. The next day we began to remove many meters of overburden sediments above the target area of four square meters. This was a new area south of our old Test C pit. We cut the south bank almost vertically, a decision that turned out to be important later. Then came The Storm.

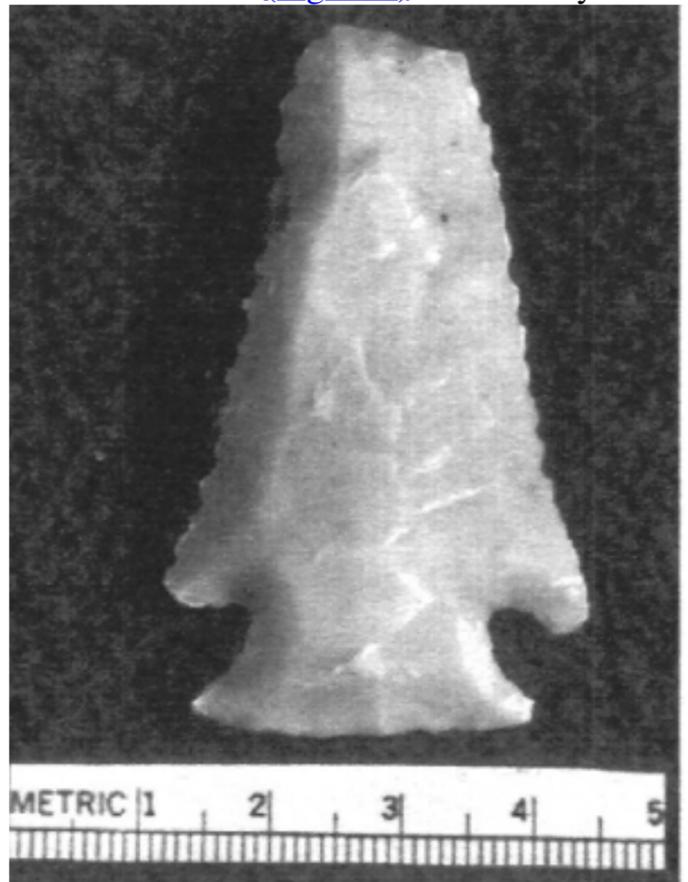
Hurricane Opal swept up the Gulf and pushed inland at Panama City. In view of its dire threat, we had evacuated most of our equipment from the site two miles back down the Jeep trail to the Ladson's boat shed. Only two inches of rain fell directly on the Aucilla River, but we waited two and a half precious days, first for the storm to pass and then for the tidal surge that had swamped the road to the site.

Once we re-established our position at the site, we removed the gray clays downward until we were 20 to 40 cm above the Bolen level. Then we more carefully excavated sediments in 10 cm levels within one by one meter units. At that point we laid out a grid two meters wide by three meters long marked by orange survey stakes. The research plan called for controlled exposure of the uppermost layer of the dark paleosol that we call "the Bolen surface". Almost immediately we exposed three Bolen points from the gray clay immediately above the paleosol. Two are black, covered with iron-oxide stain ([Figure 1](#)), and the other was light gray, the original hue of the translucent local chert ([Figure 2](#)). These early discoveries gave a tremendous lift to everyone's spirits and made Opal seem like a distant memory. We continued to excavate the levels above the paleosol. We noted repeatedly that as we worked downward closer to the paleosol the clay became progressively shellier and was interspersed with fractured dolomite and rounded limestone cobbles. Next we began to expose the paleosol itself, again working within one by one meter units. The surface itself yielded an exciting array of new material. There were numerous tools, worked wood, and, of special interest, two bola stone preforms ([Figure 3](#)). In addition to these obvious artifacts, we mapped a wide scattering of fractured gray dolomite, rounded gray dolomite, round lime stone cobbles and accumulations of charcoal. We numbered key items and mapped all items. We set two concrete datums on the surface to control precise contours of this rich Bolen surface. We used both a line level and a bubble tube to develop contours. Joe took a video record of each square, using Ed Green's specially designed frame. Then the artifacts were removed. After completing the six units, we also opened another to the west of Test C, bringing the total coverage for this season to seven meters.

One of the most interesting features appeared in Unit P (the north central unit of the six). A circular depression about 40 cm in diameter and about 10 cm deep had a large, flat carbonized piece of wood in the center. Numerous fractured gray rocks surrounded the depression. The whole setting strongly suggests that this feature is a hearth.

We completed a detailed vertical profile map of the strata from the 10,000 year-old paleosol upward. Our earlier work cutting a vertical profile rendered this task much easier than if we had sloped it. Two gray clay layers lie above the paleosol. Above the clays occurs a peat layer containing Deptford pottery. Several peat and sand couplets stand above the Deptford-age peat, and finally the stratigraphic column gives way to loose twigs, leaves and sand. We video-recorded this entire profile as part of the permanent record of this excavation. And finally we took diverse samples for soil analyses of the Bolen paleosol, including northwest and southwest corners of Test C and the corners of each newly excavated unit. Sylvia Scudder will research these samples for chemical signatures that may reveal much about the environment and human impacts on the bank of the Aucilla 10,000 years ago.

When this half of the season was done, we had logged 240 key specimens and samples. The specimens, the data and further processing have now moved back to the Florida Museum of Natural History. We have already washed and dried all zone-collected materials and are analyzing the maps and video inputs. ARPP is fortunate to have the help of Marnie Ward to identify and catalog the bone. Tanya Peres, a grad student at Florida State University will analyze faunal remains from the upper strata for her Master's thesis. Mark Muniz is analyzing the rocks from the Bolen surface and comparing their characteristics with rocks from older strata. When all the work is done from this and previous seasons it will lead to several papers, a thesis and my dissertation.





Page/Ladson deep site excavations

BY DR. MICHAEL FAUGHT

The Aucilla River Pre history Project's October 1995 field activities focused on the sinkhole at the Page/Ladson site to continue the underwater excavation of sediments and surfaces dating from late Pleistocene and early Holocene time frames. [The Page/Ladson site is located in the Half Mile Rise section of the Aucilla River, about 2 miles from Nutall Rise. Page/Ladson is a deep river sinkhole located at the confluence of the Wacissa and Aucilla Rivers]. Over the decades, divers have found abundant chipped stone tools, chipping debris (debitage) and the bones of both extinct and extant fauna at the bottom of this sinkhole. The diagnostic artifacts found there reveal a long history of site use, and include at least one fluted projectile point, several Suwannee points, and abundant Bolen and Greenbriar like points. There are some Kirk-like points, but these are so similar to the Bolen that a distinction is often difficult. These items date from Paleoindian to Early Archaic times (possibly 12,000 to 9,000 years ago). More recent artifacts, such as Florida Archaic stemmed points and Deptford ceramics, are also found in and around the sink indicating occupation by Middle Archaic peoples of those cultures.

The great possibilities of finding the earlier artifacts in sedimentary contexts compelled Jim Dunbar and Dave Webb to initiate excavations there in 1983, and this research is the well from which this newsletter springs. Since that time various dredge exposures and vibra cores have revealed that the sediment bank preserved on the western margins of the sinkhole contains a remarkably complete stratigraphic record of what we call the Pleistocene/Holocene transition, that is the end of the Ice Ages, and subsequent (Holocene) environmental progression. The upper two meters of this sediment bank include early Holocene sediments down to the Bolen level worked during Brinnen Carter's watch. The Strawmat-limesand stratigraphic unit contains abundant remains of extinct fauna, proboscidean digesta and possible evidence for Paleoindian presence.

In the final two weeks of the season, I directed continued exposure of about four vertical meters of sediments in a three by two meter area below the Bolen aged soil surface. Our mandate was to explore the late Pleistocene Gray Clays and below the Strawmat-Limesand.

When we went into the field we wanted to determine if the Strawmat/Limesand contact exhibits erosion or pedogenesis, suggestive of desiccation. Therefore one task to perform underwater was the study of the lowermost Gray Clay, to describe the nature of the initial sediments, and to search for appropriate items to date the absolute beginning of Gray Clay sedimentation. The sediments were dug with the six inch induction dredge and shovels, knives, trowels, fingers and anything else we could try. The clays are dense and it was an arduous but ultimately satisfying experience.

Underwater archaeology is challenging, if nothing else. The research design I wrote in September called for a detailed study and drawing of the stratigraphic section, which we accomplished, thanks especially to Mark Muniz and Brinnen Carter. Joe Latvis and Eddie Green fabricated an excellent platform for taking videotape "stills" which worked well on the upper portions of the section, and pretty well on the Bolen surface. My desire to study the lower stratigraphic column as if I were in a terrestrial situation (staring and testing for as much as two or three days) resulted in three two hour dives dedicated to this purpose. These came during the last three days in the field, and the few significant equipment failures that did occur, happened at that time, of course. We did get some great shots of the contact and the sediment beds with hand held video, thanks to Joe Latvis.

From the stratigraphic study it became apparent that the lower Gray Clay stratigraphic unit is actually comprised of two major clay beds, and another band of color/constituent change at the base, just above the Strawmat. It's all still gray clay, but there are differences in it. As it turned out we relocated the remains of "Cring's Log" (10,600 years old). Its presence showed that the lower clays filled in the time between 10,600 and 12,000 years old.

Dan Cring was a UF graduate student who participated in several of the ARRP field seasons. He had the dubious honor of discovering and extensively "carving" a very large ancient log that had fallen into the late Pleistocene sediments below the Bolen level. The radiocarbon date on that log still serves as an important chronological control point in the Page/Ladson site.

The lower clay bed exhibited abundant vegetation fragments resembling those familiar in the Strawmat. The sequence of clays below is also somewhat analogous to the sequence of clays above the Bolen surface (two major beds and a color/constituent change just above the Bolen surface). All of this is very interesting from the perspective of reconstructing the way the sinkhole became filled with sediments, where the Paleoindian artifacts might be found in situ and what happened in the natural environment during and after extinction's.

An unplanned contribution of the crew to the ARPP was the development of a useful and manageable new tool for survey and mapping underwater Mark Muniz and Andy Hemmings were particularly helpful with this invention, a float with three tapes attached for trilateration and depth determination.

Finally, there were three evening lectures presented, and these included my rendition of "The Peopling of the New World", David Webb's great discussion of the differences between Mammoths and Mastodons and then I got to present the offshore research. There was an atmosphere of intellectual exercise and discipline. This is due to the great crew of volunteers and staff that man (and woman) the Aucilla River Prehistory Project. It certainly was a great exercise and discipline for me.

Given the flakes, the bola stone and the cut tusk, there is a fair amount of circumstantial evidence of cultural activity in, or on, the Strawmat. However, for the "Oasis Hypothesis" to be true in Page/Ladson, there must be a place, presumably at, or below, the Gray Clay/Strawmat contact, where there is evidence for subaerial exposure and human presence down in the sinkhole - something that would probably be similar to what the Bolen surface looks like. This kind of situation was not found in October, but this is the kind of in situ situation that I believe is there. Jim Dunbar and Jack Simpson think it is to the north and west in the western sediment bank, and I agree. Indeed, two weeks of the spring 1996 field season will be devoted to exploring this very area.

Enigmatic bola date resolved

BY JIM DUNBAR

Of the several dozen carbon dates taken at Page/Ladson only two from Test B are in reverse order (i.e. an older level above a younger level), suggesting a problem for stratigraphic interpretation. Brinnen Carter's 1995 work on the "Bolen surface" (see "The Bolen Surface") now suggests a solution to the problem of the reversed carbon dates. Bola stones (AKA club-heads) and side-notched Bolen Beveled serrated points were recovered in 1995 near the "Bolen surface". The implication that bola stones represented a Bolen-aged artifact (10,000 to 9,500 years old) was an unproved possibility during the 1988 season when a fragment of possible bola from the "Bolen surface" had no diagnostic features for confident identification. Also, in 1985 a bola stone (Figure 1) had been recovered from a level in Test B that dated 12,300 years old, suggesting bolas were much older than Bolen age.



ROY LETT, BUREAU OF ARCHAEOLOGICAL RESEARCH

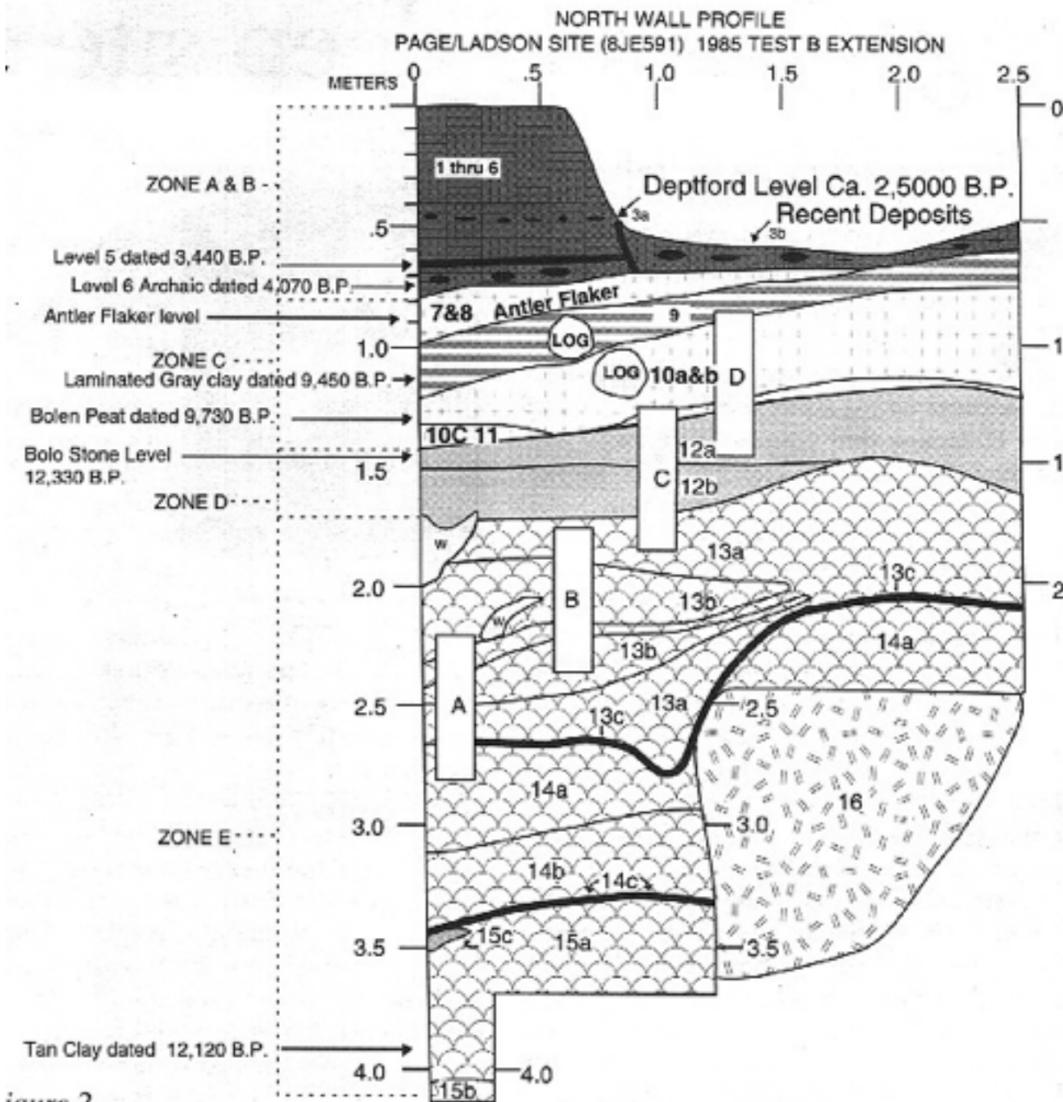


Figure 2.

In 1985 a one meter north by 3 meters east-west expansion of Test B uncovered Bolen components embedded in still-water deposited peats followed by a thin, sandy-shell lens below that peat (Figure 2). The still-water peat deposit produced side-notched Bolen Beveled serrated artifacts which carbon dated to 9,730 years old, the deep water equivalent to the "Bolen surface." The sandy-shell lens below the still-water peat produced a Bolen Plain side notched point, but the level was never carbon dated. Below the sandy-shell lens was a level which looked like and carbon dated to the age of the 12,300 year old Limesand straw-mat. However, the Test B limesand did not have the familiar "straw-mat" which rested above and has been found in the Limesand levels of Test A, Test C and Test F.

Test B also lacked the gray silty sediments which separate the "straw-mat" level by more than a meter from the younger Bolen levels. We knew there was an erosional gap in the sedimentary record. The Test B limesand level carbon dated 12,330 ± 110 years before present; however a

carbon date from a sample more than 2 meters below the Test B limesand dated younger at 12,120 ± 120 years before present.

Something was wrong!

Before we go further, just assume we had an archaeological site which developed as sediment "rain" buried two different ages of artifacts at different times in two different levels of sediment in a layer-cake of time. Applying the stratigraphic principle of superposition, younger artifacts should occur in a level above an older level with older artifacts. In Test B we were left with three possible scenarios that might explain the inverted carbon dates which indicated an older level above a younger one:

- 1). The bola stone was somehow intrusive into the Test B *in place* Limesand level and represented a younger artifact in an older level. There was no evidence of disturbance in the stratigraphic profile which may have caused contamination. This scenario also demanded that the deepest level, which had carbon dated to a younger 12,120 ± 120 years before present, was not correct;
- 2). The bola stone was recovered from in place undisturbed Limesand sediments and the deeper 12,120 ± 120 year old level is not correct, or;
- 3). The Test B limesand did not reflect the correct age because an erosional event had caused stratigraphic mixing and transport of the older Limesand with younger Bolen-aged sediment into the Test B area. In other words, the deeper 12,120 ± 120 year old level reflects a good date, while the older but shallower date reflects the correct age of a redeposited Limesand displaced by an erosional event which took place during a Bolen-age time frame; Because Carter found bola stones in unquestionable Bolen context in 1995, it now appears that option 3 is most likely.

Therefore, the deepest *in place* level of Test B dates 12,120 ± 120 years old and may indicate we never reached undisturbed elements of the Limesand in that area. This implies that the equivalent of the Test F mastodon bone bed will occur at a lower elevation of 10 feet or more in the Test B area.

Following this line of reasoning also suggests the late ice-age Page/Ladson sinkhole was deepest on its southern end and became generally shallower to the north. And, from what we have established in Tests D, D', E, F, and II, the shallow side and entrance into the sink was on the northeast end. There is a decline in the elevation of Paleoindian aged sediments from 15 feet below the present water's surface on the northeastern end of the sink to 30 feet below the present water's surface in the central area of the western bank (the Test F area). Sediment coring conducted by David Kendrick to the north, northwest of Test F suggest it becomes shallower until rock cliffs are encountered.

Among other objectives, it is our intent to move testing from the Test E area towards the north northwest in order to follow the uneroded sections of Paleoindian age sediments into the known bone bed and toward a shallower profile.



Slave Canal mound investigations

BY ROBERT PATTON

Often as I work in the FLMNH Southwest Florida Project computer lab, Dr. Jerald Milanich gaits through and surprises me with a few humorous words of gold advice. When he did so back in April 1995, he really caught my interest. It seems there were several aboriginal mounds close to the Aucilla River which, while of interest to the ARPP, were "too young or dry" for its regular research program. The Project and its supporters were interested in having someone check the mounds out. Milanich's own surface collection at some of these sites had turned up oyster shell, about 6 miles from the coast! Could these sites have been closer to the Gulf in the past, possibly during a period of higher-than-present sea-levels? I quickly responded that, since I was planning to conduct an archaeological survey in May and June, I could probably find time and wherewithal to slog out there in July or August.

Little did I realize what a treat lay in store. After speaking with Dr. Webb, I traveled with Mark Moons (the good), Dan Palt (the bad, veteran of May's survey or "The Brazilian Pepper Nightmare"), and Andy Hemmings (the ugly), to the ARPP facilities. I was warmly greeted by Jack Simpson, after which I proceeded to jump off the dock and break an eardrum on the water's surface. A freak accident? No, Andy was not involved. That night I learned the true value of a great project support team - Dr. Hoyt Home, thank you again. Nevertheless, the next day revealed "wonderful things"

Traveling north up the Slave Canal (itself a historic and archaeological treasure) we stopped and conducted surface collections at four sites. The first two were lithic scatters in the canal and on the stream Robert Patton banks, where a slight rise was noted - most likely a natural levee with cultural deposits on it. The third site was a collection of historic structures and features, including what appeared to be at least one small building and three small (3') circular stone enclosures. Some pieces of metal that appear to be barrel-hoops suggested that the enclosures were used for storage. Ceramic whiteware sherds found nearby date to about 100 years ago.

The fourth site we came to was the place we had come to see. A small slough running from the Southeast joined the Slave Canal stream on its east bank. To the north of this small slough and up the eastern bank of the Slave Canal was a crescent-shaped ridge about 6 feet high and 200 feet long. The ridge was wide enough to taper gradually into a distant stream-terrace, about 100-150 feet from the running water. It was widest at the confluence of the slough and stream, with most of its thickness to the east of that point. Our surface collection that day included several chert flakes, potsherds, and a few oyster shells, just as Milanich had described. Even though Jack said that a larger mound was farther upstream, I knew that this site could answer the relevant questions; Could the inhabitants of the Slave Canal mound sites have been obtaining their oysters in the immediate vicinity? What culture inhabited the mounds (and how long ago)? I returned to Gainesville determined to explore these questions.

In late November, Andy, Mark, Dan, and I were able to return to Site 4 for four days. I had decided that the best way to proceed was to do a small (1m x 1m) test excavation in an area that appeared to contain the full stratigraphic sequence; Pottery and shell would provide materials for accurately dating the mound's development and use; Bulk samples taken from each stratum could be used to answer the question "how far were these people going for their seafood?" At the same time, we needed to know how far the mound is above present-day Mean Sea Level; If present Gulf sea level curves are correct and the midden materials do not seem to have been transported long distances, then the mound might be expected to date to a time of higher-than-present sea level. The distance above present MSL should then correspond to the proposed magnitude of that high water stand. So while two of us worked on the test pit, the other two sought to link Site 4 to the elevation marker at the Page/Ladson site.

The surveying ended up taking more time than was expected, simply due to the distances we had to cover and our inability to secure a laser transit for the weekend. Additionally, we found that the Page/Ladson datum is not tied to MSL. However, an absolute elevation benchmark was located (on the main highway bridge) in preparation for finishing the instrument work quickly next time.

The most exciting aspect of the four days was the test Pit Although several (3'- 8' in diameter) looter's pits pocked the surface of the mound, we found an area near its greatest thick ness that appeared unspoiled and was very close to the water. I proposed that this area might contain the fullest stratigraphic sequence for the midden. A 1m x 1m excavation unit was laid out there with sides facing the cardinal directions. Excavation proceeded in 10cm levels. Where soil color, texture, or inclusions changed during excavation, the natural stratigraphy was traced. All soil was screened through hardware cloth.

The first stratum consisted of black (10 YR 2/1), sandy humus with numerous small roots, some king's crown (MPEongena corona, a brackish/saltwater snail), other shell, bone, some potsherds, and a nail. Level 1 was entirely within this stratum. Although formal analysis is not complete, the majority of sherds found in this level were Sand-Tempered, Plain.

In Level 2, we began to notice a slight color change (10 YR 3/1 - very dark grayish brown) in the southeast and northeast corners of the excavation. These areas turned out to have little depth, forming shallow "lenses" within Stratum 1; They may represent small deposits of ash or other refuse dumped on the surface of the midden. More oyster shell appeared in level 2, along with pieces of freshwater snail shell. Perhaps most significantly, Level 2 contained a great number of Deptford check-stamped sherds and Swift Creek complicated-stamped sherds. Also, pieces of low-grade quartz crystal and a biface were recovered. The biface appears to be a knife, although it may have been reworked from a spearpoint. From its style, it originated either as a member of the Lost Lake group (here, Bolen Plain: 8000-7000 BC), or its slightly later form, the Kirk Corner Notched group (7500-6900 BC). From A.; its appearance in a ceramic level, and B.; through careful examination of the tool's surface, it seems clear that the inhabitants of the site found this knife which had been lost or discarded millennia earlier, resharpened one working edge, and put it back into use.

On the basis of soil color alone, it is unclear if Level 3 is still part of Stratum I. After a full profile is uncovered and all materials are analyzed, this will be resolved. Level 3 contained many less Swift Creek sherds than level 2, several Deptford sherds, and several pieces of partially-baked clay and sandstone. Under three especially large pieces of gritty material (6-10 cm), a heat-altered biface preform was recovered. Both the associations between these artifacts and their respective conditions indicate an area where (at least one instance of) heat-alteration of chert was conducted.



(Mark Muniz excavates a test unit in the mound)

As exciting as these preliminary results are, they are all we have for now. Running out of time as our classes, jobs, and cold weather bore down, we had to cease excavation. Much time and effort was put into devising a way to shelter the test unit from the elements. This spring we hope to complete the test unit and elevation readings. It's exhilarating to consider the information we will gain on Deptford peoples. We already know they lived in the area from 500 BC to AD 200, with an economy that emphasized aquatic resources (see Milanich: The Archaeology of Pre-Columbian Florida, pp. 111-150). Most large Deptford sites are near the coast, and several smaller inland sites are known. The Slave Canal Mound may tell us more about the interactions between coastal and inland sites. Further, the transition from Deptford to Swift Creek assemblages occurred in the eastern panhandle about AD 250-300, indicating the spreading influence of traditions from Georgia. Understanding the environmental setting of the Slave Canal Mound may help explain how and why this transition occurred.



Mastodon dung (It's a dirty job but.....)

BY MATT MIHLBACHLER

One could say that the main goal of the Aucilla River Prehistory Project is romantic excitement. The search for Florida's first people is certainly one of the most special scientific endeavors currently taking place within the region. In the study of the past, the search for the oldest or the first of anything can be among the most exciting aspects of field work. Discoveries of this sort are of the kind that make major headlines. On the flip side of the coin, the Aucilla River Project has revealed a first of another sort. This first is certainly not glamorous nor romantic, yet for the paleontology enthusiast and for the scientific community it remains overwhelmingly exciting. This discovery consists of literally tons of mastodon digesta. To be more blunt, lying on the bottom of the Aucilla are loads and loads of dung from extinct elephants.

In case you are wondering just what mastodon digesta looks like, it consists of abundant little sticks and small chunks of bark, with an occasional seed here and there ([see Figure 1 for a comparative specimen of modern African elephant dung.](#)) It seems to be concentrated within the deepest portions of the Aucilla river. Matt Mihlbachler These deep areas are sinkholes that at one time served as watering holes for the huge beasts during drier portions of the year in the late Pleistocene. The digesta was laid down rapidly by these creatures as they relieved themselves while drinking from the water hole or even wading in it as modern elephants do today in Africa. Elephants produce a lot of waste, and presumably, so would a mastodon. This fact is largely responsible for the unique preservation of this material. The rapidity at which the dung layer was built up and compacted quickly isolated the lower layers from any exposure to oxygen, thus giving us beautifully preserved plant remains eaten by the mastodon.

So far, two sites have revealed the presence of this wonderful material. Latvis/Simpson contains mastodon dung that dates to at least 30,000 years old, prior to human occupation in Florida. The Page/Ladson site has gifted us with much younger dung dating to at least 12,000 years old, a time when people did inhabit Florida. You might think of this as a treasure chest full of gold because it gives us new insight into the interactions of Paleoindians and the now extinct Pleistocene megafauna.

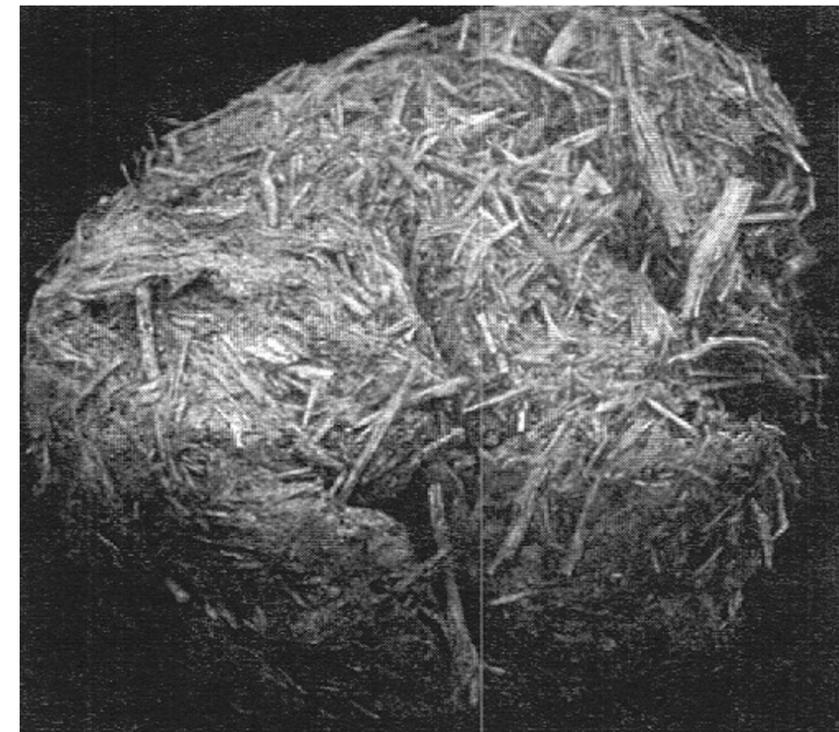
Strangely enough, the mastodon digesta has traveled all the way to Carbondale, Illinois at the Southern Illinois University. It was brought to this unlikely destination by Lee Newsom, a University of Florida graduate and archaeobotanical specialist for the Aucilla Project, who now acts as curator for the Southern Illinois University Archaeology program. Fortunately, at this point, I was able to become involved with this work.

It is not surprising that there is no standard procedure for the analysis of mastodon digesta. Certainly the only way that we know to go about this process is by tediously picking through countless thousands and maybe even millions of individual plant fragments, sorting out whatever seeds and other identifiable plant remains can be found. The material is then identified, counted and recorded. Individual sticks and bark fragments are measured and drawn. Also, we have looked at how the sticks have been broken to determine if and how they have been bitten off and chewed by the proboscideans.

The waste products of an animal can reveal a potpourri of otherwise unavailable information about extinct animals.

1. Most importantly we now have a way of interpreting the exact diet of the Florida mastodon, which consisted of many browse plants including cypress, wild grape, buttonbush, willow, pine, pokeweed, mexican poppy, and wild gourd seeds.
2. Wild gourd seeds were found in the digesta. This is very interesting because most scientists previously believed that the gourd was first domesticated in Mexico and gradually reached Florida through the hands of Indians. We now know that this is too simplistic. Gourds reached Florida at least 30,000 years ago and were here before the arrival of Florida's first people. Indians in the eastern United States may have independently domesticated gourds, most likely without the outside influence of others.
3. The fact that some of the seeds recovered are dry land species that could not exist near the watering hole tells us a substantial amount about the ranging behavior of mastodons. They probably went on feeding sprees lasting for possibly up to two or three days, ranging far from the water source as the food supply was diminished in an ever growing ring centered around the watering hole during the driest months of the year. This tells us that the waterhole was one of a few limited areas for large animals to come and satisfy their thirst during dry season "starvation periods" of the Florida Pleistocene.

Stay tuned for more enlightening information derived from the mastodon dung research. We are continuing research on the digesta and are continually finding new things to learn from it. Some topics planned for the future are an examination of the preferences for different species of tree bark by mastodons. Like elephants, mastodons could have debarked, stripped, and knocked over trees, thus creating a substantial impact on the environment. The digesta can provide valuable information on the behavior and ecology of the Florida mastodon. We hope to discover ways to examine the chewing process exhibited by mastodon teeth and to differentiate between vegetation chewed by young and old mastodons. Another interesting avenue of research would be to compare the population dynamics before and after the presence of native Americans in Florida.

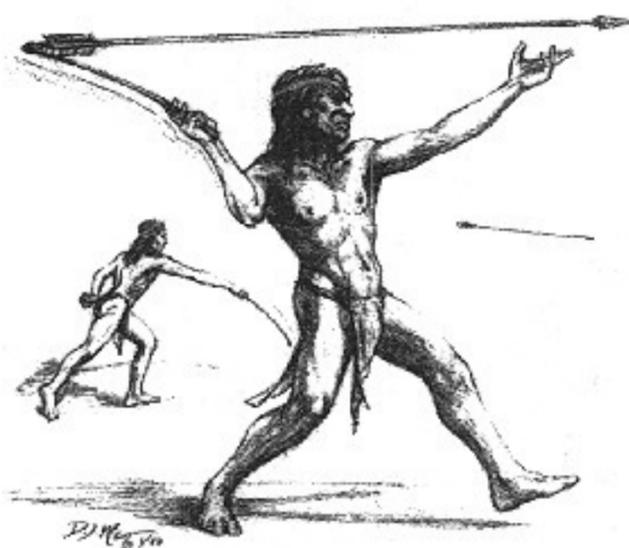


Museum receives ancient spearthrowers

BY S. DAVID WEBB

During the December season of gift-giving the vertebrate paleontology collection at the Florida Museum in Gainesville received contributions from two of its finest amateur friends, Eric Taylor and John Claytor. Each of these merry gentlemen provided a piece of fossil deer antler, collected under Florida's fossil vertebrate permit system, from the bottom of the Santa Fe River. As each of them suspected, however, these are no ordinary deer antlers, for they had been modified as *atlatl hooks*.

The word *atlatl* is appropriated from the Nahuatl (or Aztec) word for a spearthrower. (some purists argue that the word is misappropriated, since different kinds of spearthrowers appear in different hunting cultures around the world.) A common type of atlatl consists of a stout piece of wood about the length of a human forearm with a hook near one end ([Figure 1](#)). This device fits into the butt of a spear and helps hurl it. Acting as an extra segment of the human arm, the atlatl generates forces ten times greater than the unaided human arm ([Figure 2](#)). A fastball pitcher can throw a hardball at about 100 miles per hour by snapping the wrist, the elbow and the shoulder joint in a sequence of smoothly accelerating motions along a single trajectory. By tying a *sesta* (basket) onto his Wrist, and thus adding another segment to his forearm, a Jai Alai player can propel the pelota at more than 150 miles per hour. An atlatl similarly adds another segment to the arm of a spearthrowing hunter. The *hook* at the distal end of the *atlatlis* also valuable in providing a nice lodgement for the spear base as it is propelled from its launchpad. In the hands of an experienced hurler, the extra force delivered with an atlatl sacrifices no accuracy. On the other hand, an atlatl hurler probably required at least the same amount of practice and degree of proficiency as a professional baseball pitcher does in our culture.



ERIC TAYLOR

In various ancient cultures, going back into the Paleolithic in Eurasia, the hook was fashioned separately and then attached to (lodged in) the longer piece, making a *compound atlatl*. In each of the new examples from the Santa Fe River, the hook made from deer antler ([Figure 3](#)) is between eight and nine centimeters long (under four inches) and is elegantly modified from a piece of *Odocoileus virginian* (white-tail deer) antler. Another antler atlatl in a private collection from the Aucilla River is said to be much longer with a socket at the front end. In each of the Santa Fe River antlers the upper surface leading back to the hook is flattened and polished, presumably from the action of many launched spears. The proximal end of each piece (opposite end from the hook) appears to have been snapped off, and suggests that the torque of hurling spears eventually strained this portion of an atlatl hook.

There is no exact context to these finds, and that is the scientific problem with most of the wonderful discoveries from the Santa Fe river. Each specimen was found on the river bottom among the sand, silt and other elastic sediments. One bone is tan in one case and jet black in the other. Each is typical of late Pleistocene bones from this river, but there is no solid evidence proving that these atlatl hooks are of late Pleistocene age. If they were that ancient, they would provide the first clear instance of Paleoindian atlatls in the New World. In the Old World, spearthrowers occur as early as the upper Paleolithic. Today they play an essential role in the hunting technology of male Australian Aboriginals (where they consist of very broad wooden pieces called a *woomera*). Two years ago in Atherton (northeastern Australia) I video-recorded an old man using a *woomera* to throw a bamboo spear (tipped with stone) halfway through a four-inch wooden post at about 50 yards.

There is one hope for determining whether these antler atlatls from Florida rivers might be Paleoindian spearthrowers. The Museum has now loaned the tan-colored specimen to the leading bone-dating laboratory, run by Dr. Thomas Stafford at the University of Colorado in Boulder. There he has begun to extract a small sample of bone protein (collagen) from the Santa Fe atlatl hook. If there is enough he will analyze the several component amino acids and date each amino acid separately by the tandem accelerator mass spectrometer (TAMS) method. This is an expensive effort, but the Museum and Dr. Stafford are pleased to try because the potential interest in obtaining a date from this implement is so great. Tune in again next year for a possible date.

Meanwhile, these new finds add an exciting new kind of cultural artifact to the collections of the Florida Museum. We congratulate Eric Taylor and John Claytor on their outstanding discoveries. We are sending them each a beautiful replica produced by Florida Museum of Natural History preparator Russ McCarty's lab, along with an accession certificate. We know that they share our pride in preserving this valuable heritage for Floridians and their visitors.



Florida's lost city of Atlantis

BY MARK RENZ

Just as that curmudgeon of a philosopher Henry David Thoreau journeyed inside his mind for two years at Walden Pond, my two weeks at the Aucilla River was a mental sojourn. But unlike Thoreau, who returned to civilization with many more answers than questions about why humans behave as they do, I came away even more curious about Paleo people and their relationship to their environment than when I first arrived at this remarkable river.

It is one thing to read about such ancient sites as the Aucilla holds, but to actually participate in underwater excavations as a volunteer and explore the remnants of this long-ago world firsthand is likened to diving in search of the lost city of Atlantis.

In spite of having permission to be there, I couldn't help but feel like I was trespassing as I drove onto the site. Who was I to come traipsing into the past, taking part in disturbing over 12,000 years of a buried way of life? I quickly assured myself that my intentions as an amateur, as well as those of the professionals I would soon be working with, were honorable.

We came here to better understand a way of life, one which is tied to us as intrinsically as the immediate generation before us. Because, like it or not, we are all interconnected by time and space, no matter where or when we were born.

I wish I had some kind of crystal ball that would allow me to gaze into the past. The Aucilla, as with many Florida rivers, didn't exist 12,000 Years ago. Instead, freshwater springs and water-filled sinkholes dotted the region. Animals and humans frequented these spots not only to drink, but to hunt one another.

At night I would squat next to a Paleo campfire and sample some of the local chef's mammoth chops, deer burgers, side-of-sloth or sabercat stew. After dinner, I would love to hear family fireside chats in whatever strange dialect they spoke.

How frightened were they about what lay beyond their campsite and the protection they received in armed numbers? Did they view themselves as the dominant life form for their world or as an equal, fighting for survival like all the other animals? What were the roles of the women and men as well as the children? What did they do when they were just goofing off? What games were played? Did they have a weatherman and was he as off-base as those on television today?

And what about their reverence for life? When they killed a mastodon, did it disturb them to see it die, even though they were killing for food and other necessities? Did they observe the social interaction between these gentle giants the way we do elephants today? Modern elephants have been seen standing guard over their dead and "burying" them by piling-leaves and twigs on their bodies. If the two kinds of Florida proboscidiens' behavior patterns were similar, then mammoths and mastodons, like elephants, may have gone through a mourning process when one of their kind died.

I would also look into the future with that crystal ball and perhaps see my own culture studied by scientists. I personally can think of no greater contribution to humankind after I die than to have my bones, my work space, my living quarters, the tools I handle every day, whether they be a word processor, a tooth brush or an electric razor, studied under a future generation's microscope. Think what they can learn from our culture!

My first few work days at the site were not what I had expected, although it was challenging. In two-person teams each of us were asked to dive down to an oak tree submerged to a level just above the site and, with bow saw in hand, cut off the large overhanging branches that might later snag our dive gear as we worked.

Visibility was so poor you couldn't see your hand in front of your face. So one person sawed while the other held a powerful dive light which was driven by a generator on dry land. Breathing was accomplished not by tanks but by a Brownie Third Lung, which is a compressor that feeds fresh air to divers. The rest of the two weeks, as well as the two weeks spent working the site after I was gone, consisted of two-person, two-hour shifts excavating and collecting sediment samples every 20 centimeters to the bottom.

During excavations - conducted with a hand trowel - a bone pin, bifacial chopper tool, flint flake and unidentifiable point (stem was missing) turned up. However, since the items were not found wedged in place within sediments, but rather lying loose on the surface or sucked up in the debris-clearing dredge, it will be difficult to give them a precise date.

From the sediment samples, which sometimes contained seeds, leaves and twigs, scientists will be able to decipher weather patterns, determine when a plant or tree began growing in this area, and when it altered its form or died out altogether.

And then there was the mastodon graveyard in 30 feet of water. The sediments at that depth are 31,000 years old. That probably means the animal died then. But careful analysis of its context will be made to determine whether it may have been washed down from a higher and more recent elevation.

The crew itself was a hedgepodge of women and men from all over the United States, with a variety of backgrounds. (See "The Class of '95") They were from such places as Arizona, Illinois, Virginia, Georgia and Florida. Their occupations included everything from a welder to a veterinarian, dentist, soldier, dive instructor and undergraduate archaeology student. They were as young as 20 and as old as 71.

Once all the data for this project are assimilated, papers are published and puzzles are pieced together, we should all know considerably more about Florida's first residents - and perhaps even about ourselves. As rhetorical as it may sound, who we are and how we became who we are, has a lot to do with who our ancestors were. The better we understand the mechanics of our past, the better equipped we will be to cope with the present and future.



View from the screendeck

BY MARY GOUCHNOUR

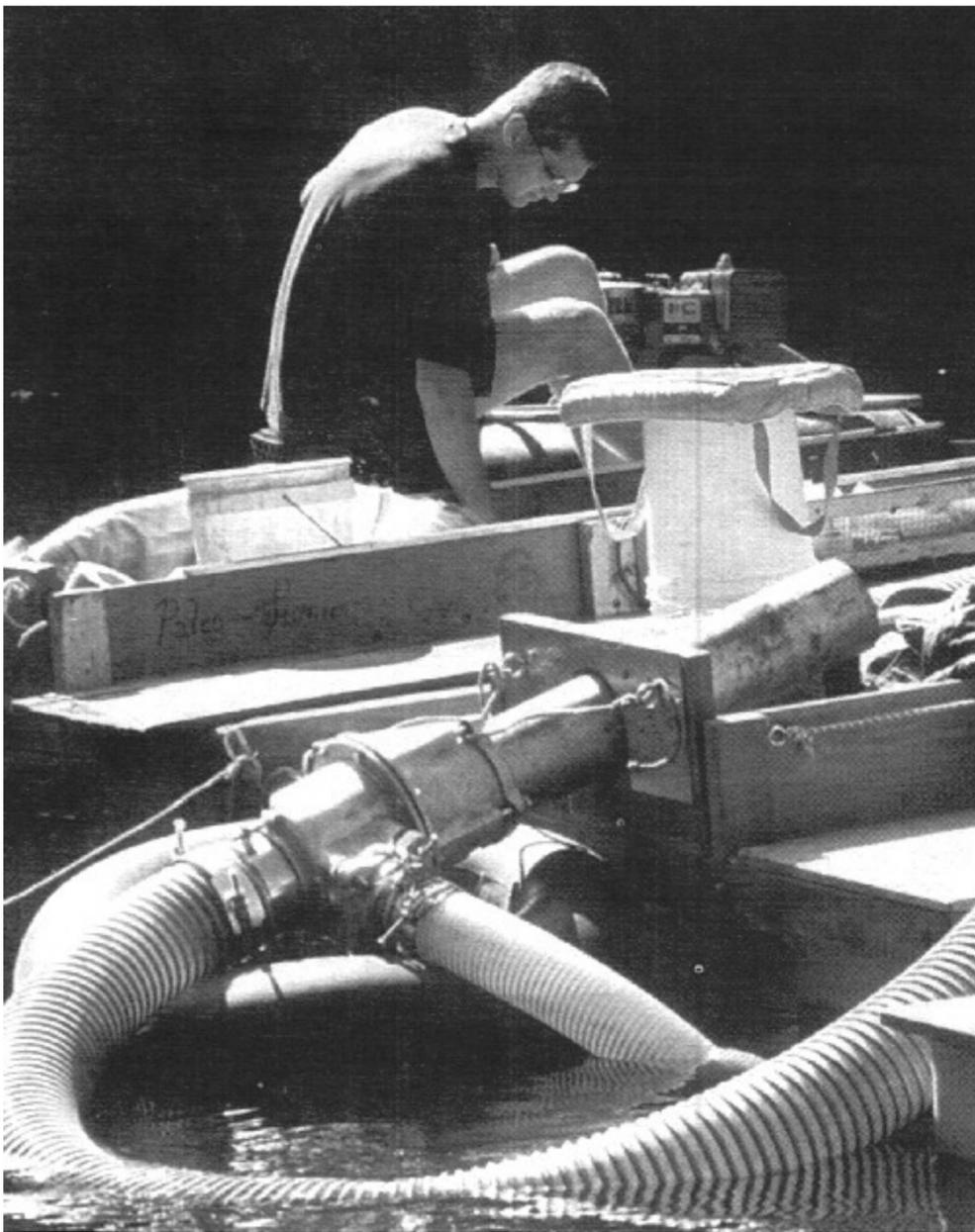
Why do I return season after season, spending my vacations freezing in October or fighting off swarms of bugs in May? Many of my friends say this is a sickness - digging through dirt and river sludge looking for some old bones and artifacts, living in "primitive" camping conditions out in the middle of nowhere, keeping company with a bunch of scuba divers and science cowboys. Hopelessly afflicted with the same sickness, we all return season after season to rise before the dawn, shiver and shudder as we step into those cold wet suits, and work hard until dusk, exhausted and starving. At the Aucilla like the Eagles' "Hotel California", "You can check out any time you like, but you can never leave"

What magic lurks beneath the cold, dark waters of this ancient Aucilla River? There is magic too among the woods and many animals native to this old and sacred land. As we toil together in search of man and mastodon or gather by night at the Nutall Rise project cabin, telling tales, playing cards, and preparing feasts, we share more than a common interest in an exciting scientific expedition. We share enthusiasm, dedication, and the intensity of a great quest. Solid and lifelong friendships are formed here at the Aucilla, as well as professional ties that will enrich our lives for years to come. The experience of being part of this project changes and directs our lives, both personally and professionally. One cannot be a part of this project and walk away unchanged. Therein lies the secret to the magic (or sickness, as some may call it) of the ARPP.

We come together as an extended family. Even the poet/writer Robert Bly surely would remark on the bonding and nurturing that exists among the various ages and levels of education and experience among the team members. Most of this goes unspoken, and yet, I believe it is felt by everyone. The value of field work goes far beyond the scientific information acquired during the fast paced seasons of work and toil. The interaction of various professional scientists, avocational volunteers, students, and financial and political supporters all have their place of importance in the success of this project. And it is the relationships that are formed which create its soul. The strongest asset we have as a project is our spirit, and that rests upon the individuals involved and their relationships to each other.

I have many teachers here at the Aucilla who are very eager to share their knowledge and who patiently answer my many questions. Watching from the screen deck or from some other vantage point, I see everyone involved in teaching. This is an ongoing phenomenon. Newcomers as well as veterans are actively involved in teaching and learning from the very start. This initiates motivation and interaction and provides the basis for the respect evident for each individual involved in the project. This in turn promotes much enthusiasm and gratification. It is very satisfying to see everyone not only feeling good about the important work we are doing, but also feeling good about themselves.

I feel indebted to each and every person I have met on this important and wonderful endeavor. To ties that bind and deeds that weave the fabric of our journey into a life full of adventure, purpose, and meaning, I leave you all with your own special memories of this wild and magical project, and the place that it embraces deep within our hearts.



Matt Mihlbachler scrutinizes exquisite details of the distant past revealed by his view from the screendeck



Mary Gouchnour, right, and Bob Knight admiring their mid-river view from the screendeck



Dive team salutes screendeck crew

BY MARK MUNIZ

Often the very end product of thousands of hours of research, excavation and analysis is a two column article in a newspaper (or if you're lucky, a sensationalized episode of ARCHAEOLOGY with John Reece Davies). What the multitudes who read or see these reports cannot appreciate are the people behind the scenes: the fear less undergraduates who volunteer hundreds of hours in a lab, procrastinating on their regular coursework because archaeology is "way cooler"; the lab technicians who pick through a bone/clay matrix trapped in a plaster jacket, using only a fluorescent light and a dental pick; or even the zooarchaeologists that sort through .5mm screen samples looking for the remains of shrimp mandibles.

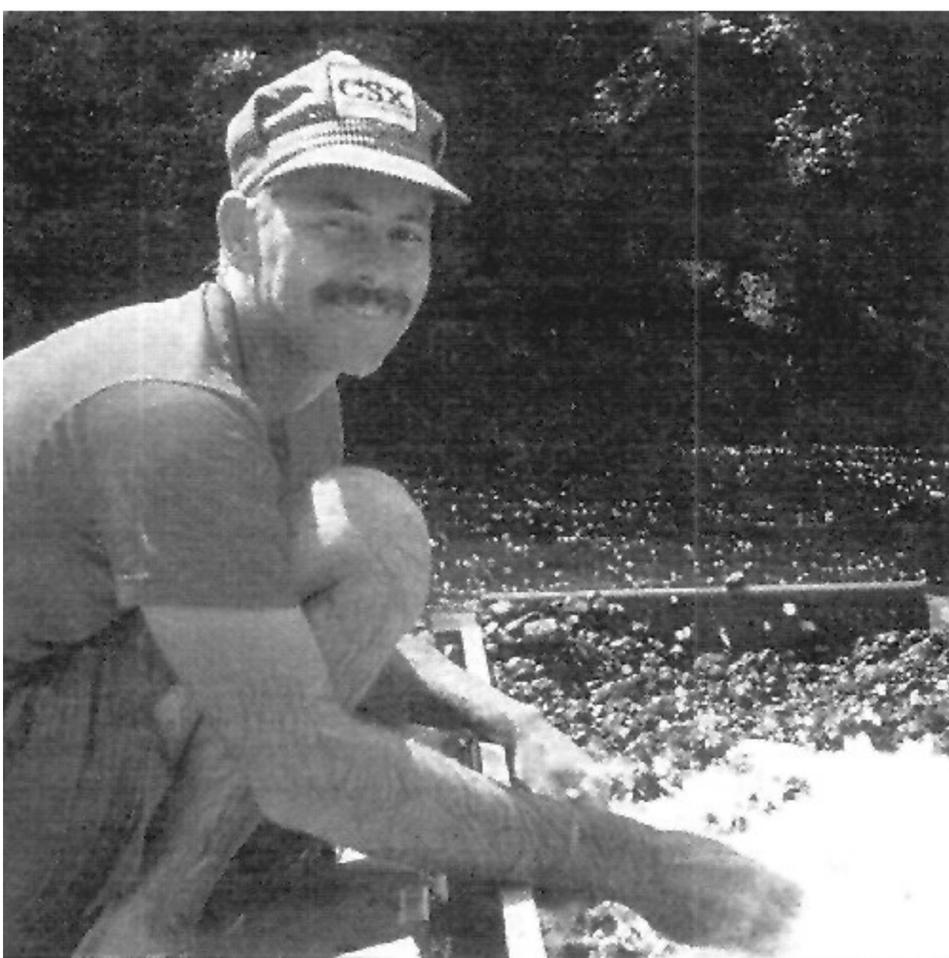
Of all the people involved in the Aucilla River Prehistory Project, I would like to raise a toast to those who work the screendeck. In archaeology the two most important people in the field are the person doing the actual digging, and the person working the screendeck. Often times, especially in an underwater environment, the excavator can become distracted from their usual keen observational skills. Many times there is such concentration on not missing a stratigraphic change, or not dig ging too deep, or remembering to breathe through your mouth, that one may miss something important going up the dredge. The person on the screen is like a back up set of eyes to the excavator. Especially in dark water situations, the person on the screen is usually the first one to notice a sediment change-either in color, texture or inclusions within the material discharging from the dredge. The screen person also has the power to stop the excavation (and should) if an artifact is inadvertently removed from the bottom. In essence, the screen person should be as observant as the excavator-and in fact even more so due to the non-archaeological distractions that the divers must sometimes deal with.

Beyond all this is stamina. The screen person must be able to withstand a barrage of smoking, rattling, white noise horsepower from an internal combustion engine only a few feet away. Not to mention the harsh midday Florida sun. While the divers may complain about a chilly first dive, once the sun clears the trees (and the divers retreat to the shade), the screen person must catch a second wind, and settle in for a long hot day.

Since the Aucilla River Prehistory Project deals with underwater archaeology, there is obviously a need for more diving than nondiving personnel at any one time. Among the divers there is Instructor, Dive Master, Research Diver and Diver in Training status. Any of these qualified individuals may be excavating during a dive, balanced with an equally competent person on the screen deck. In the quest for rank and order, long-standing hallmarks of the human species, let us not subjugate our topside brethren, for digging alone does not archaeology make.



Dawn Pinder standing solitary screendeck watch on a less-than-sunny day.



Tom Kelley working the screendeck on a sunny day.

Photos MARK MUNIZ

The class of '95



One of the many ever-changing field crews from 1995. Standing from left: Dr. Billy May, Dr. Gene Rowe, Joan Herrera, Bill Gifford, Don Munroe, Mark Renz, Ken Kirkpatrick II, Andy Hemmings, Jewl Pozejsky, Terry McKibben, and Jack Simpson. Kneeling: Joe Latvis and Brian Yates. On all fours: Miss Fossil

Photo Jack Simpson

BY MARK RENZ , MARY GOUCHNOUR, KEN KIRKPATRICK AND DAWN PINDER

We never cease to be amazed at the diversity of personalities, occupations, educational backgrounds, socioeconomic stations, geographic origins, avocational interests and ages represented among volunteers who collectively become the field crew each year. The following mini-biographies are a glimpse into the multidisciplinary, multidimensional, multifaceted "Class of '95".

PAUL AUGHEY, 28, is a computer programmer in Tallahassee, and is pursuing a degree in archaeology and computer science. He's also in charge of dry cave surveys in North Florida.

DAVE BALL, 30, of Oakland, CA. is part of the Academic Diving Program for Florida State University. He is working toward a Master's degree in anthropology at FSU. The Aucilla is one of at least 12 archaeological projects for Dave.

JODY BARKER, 39, lives in Orlando, FL, where he works as a welder. "I've worked as a volunteer for many projects," said Jody, "but none like this one".

LANCE CARLSON, See "ARPP"

Student Profile Spotlight"

BRINNEN CARTER , See "ARPP"

Student Profile Spotlight"

STEVE DOORBAR, 31, of Los Angeles, CA is pursuing a degree in archaeology at the University of Florida. He has a B.A. in philosophy.

DANIEL FALT, 23, of Gainesville is currently completing his master's thesis on terminal Pleistocene lithic artifacts from Somalia, and he looks forward to doing more research on maritime adaptations in both the Old and New World.

GRAYAL FARR, 52, of Winter Haven, FL. is retired from the Army, holds a B.A. in history from Florida State University and is currently a first semester graduate student in anthropology/ archaeology at FSU.

JONATHAN FAUCHER, 23, has a B.A. in anthropology from the University of Arizona, is a grad student at Texas A&M, and a dive instructor. Jonathan has archaeological project experience from Arizona's Morona Mound.

WILLIAM O, GIFFORD, 46, of DeLeon Springs, FL is a dive instructor, and has participated in at least 20 natural science projects.

STEVE CLOVER 47, has a B. A. degree in English, and is semi-retired from advertising/graphic arts. "Witnessing the elephant remains was a transcendental experience," he said.

MARY ELIZABETH GOUCHNOUR, 37, of Newberry, FL was educated as a radiation therapist, and is currently pursuing an A.A. degree in anthropology. Because her dad was a surgeon and respected amateur archaeologist/river diver, she grew up in a house full of fossils, artifacts and great discussions about the natural sciences.

EDWARD M, GREEN, 65, of Springhill, FL is retired from Ford Motor Company. He has a B.A. degree in history from Michigan State University. He's a 35 year member of the Michigan Archaeological Society, and a longtime veteran volunteer for the Aucilla project.

ANDY HEMMINGS. See "ARPP"

Student Profile Spotlight"

JOAN HERRERA,

TOM KELLEY, 45, of Miami, FL. Tom lives in Tallahassee, where he works as a residential building contractor.

KEN KIRKPATRICK, 26, of Moody Air Force Base, GA is in maintenance management with the U.S. Air Force. "This project enables one to connect himself with the past through exposure to a 12,000 year-old Paleo Indian site," he said.

ROBERT L, KNIGHT, 47, of Gainesville, FL is an environmental scientist with a Ph.D. in ecology. "This is the most exciting archaeological project underway in Florida right now," he said.

JOE KOESTELNIK, 35, of Gainesville, FL works as an environmental analytical chemist. Joe has a B.S. in chemistry from the University of Florida.

HANK KRATT, 33, of Tallahassee, FL is an undergraduate in anthropology at Florida State University. "This was definitely a chance to work with a great bunch of people," he said.

WILLIAM B, MAY, 67, of Richmond, VA is currently a dentist in Richmond. He has a B.S. degree, a Master of Humanities degree and is a D.D.S. His volunteer projects are many, including the Dry Tortugas, Bermuda, Ethiopia, Kenya, Belize, Turks and Cacos.

TERRY MCKIBBEN, 35, of Orlando FL is an ex-carpenter who holds an A.A. degree and is working on a B.S. in engineering.

CHUCK MEIDE, 24, of Jacksonville, FL teaches underwater archaeology as a graduate student at Florida State University. Chuck has an M.S. degree in anthropology. He has helped with underwater excavations for the LaSalle shipwreck in Matagorda, TX, and Little Salt Spring near Punta Gorda.

MATT MIHLBACHLER, 22, of Sigel, IL is currently an under graduate anthropology major at Carbondale, IL. As a direct result of his 1995 participation in the ARPP, Matt is applying to the University of Florida as an undergraduate specializing in vertebrate paleontology.

MARK PETER MUNIZ. See "ARPP"

Student Profile Spotlight"

DON MUNROE, 45, of Gainesville, FL has a degree in Nuclear Engineering from the University of Florida and works there as radiation safety officer. It's his second season with the Aucilla project. "This is a great opportunity for amateurs to work side by side with professionals", he said.

MICHAEL L, NOLAN, 33, of Pierson, FL is a broker and grower of decorative foliage. This is Michael's second natural science project, the first being an archaeological survey at DeLeon Springs. "We are over-paid", he said referring to the work the volunteers took part in.

ROBERT PATTON, 25, of Gainesville is now researching the development of complex political relationships among the prehistoric peoples of Florida. His master's thesis (soon available from the Florida Museum of Natural History's Southwest Florida Project) explored this topic through the shell artifacts from the Pineland site, in Lee county.

DAWN FINDER, 37, of Jacksonville, FL has a B.A. in religion and a Master's degree in social work. In the "real world" she's a private consultant and human resources trainer. "I don't really have a great interest in science", said Dawn, "but I love playing in the mud."

JEWEL K. POZEFSKY, 71, of Altamonte Springs, FL has an M.S. degree in math. Her volunteer projects include the Museum of the Rockies in Montana, Hunters Creek in Kissimmee, and Thomas Farm in Gilchrist County. "I'm looking forward to the results of the Aucilla project from what we found in May. The pictures were great; the tape looked as if we were in the Amazon."

MARK RENZ, 4-0, of Punta Gorda FL works as operations manager for Babcock Wilderness Adventures. He also operates Fossil Expeditions a guide service to local vertebrate fossil beds and teaches "Fossiling Without A Ph.D." a continuing education class at Edison Community College in Fort Myers.

EUGENE T. ROWE. See "Volunteer Profile Spotlight"

RANDY RUSH, 49, of Miami, FL has a B.A. degree in business administration and is currently a diver for an engineering company as well as part owner of Sea Hawk Diving Center in Homestead, FL.

DAVID SHEA.

BRAD STACKPOOLE.

DAVE THULMAN, 40, Tallahassee has a B.A. degree in anthropology from the University of Pennsylvania and a J.D. from George Washington University. Dave is a senior attorney for the Florida Department of Environmental Protection.

BILL TILDEN, 61, of Sopchoppy, FL has worked extensively as a surveyor in the Everglades, Naples, Fort Myers, Brooksville and Tampa. "We're trying to get the dead to talk," said Bill of the project.

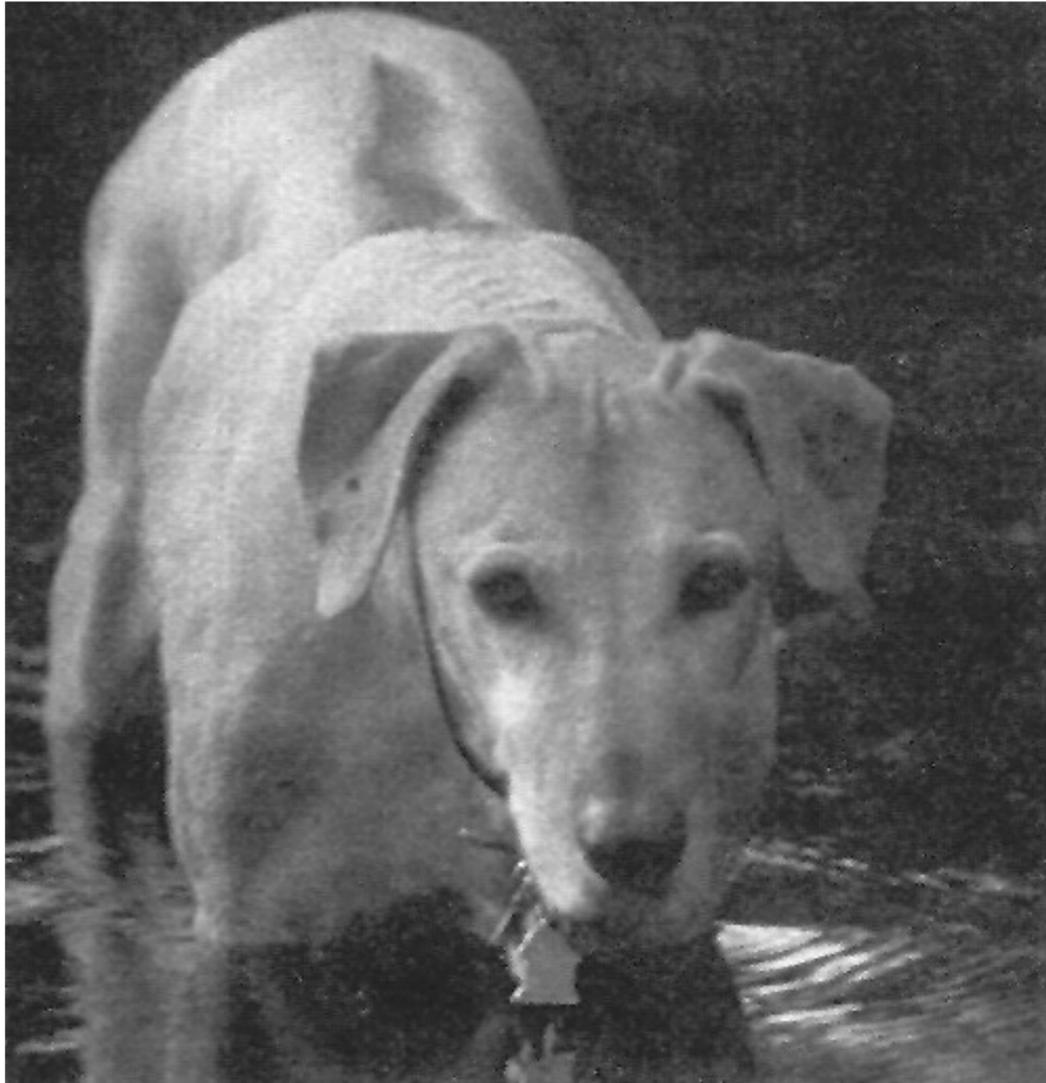
FRANK WILLSON, 68, of Lake County, FL has a B.S. in chemical engineering, and is retired from the petrochemical industry. Besides the Aucilla, he has worked as a volunteer for the DeLeon Springs project.

LOIS WILLSON, 64, of Lake County, FL is a retired legal secretary. "You should have seen the look on my face when I saw how quickly the food I cooked (for project members) disappeared," she said. "I had a ball up there, all the people were great and worked well together."

BRIAN PATRICK WOODS, 28, of Northern Ireland now lives in Minneapolis, MN, where he works in the banking industry. He has a B.A. in journalism, a B.A. in history from the University of Minnesota, and an M.B.A. from the University of St. Thomas in Minneapolis.

BRIAN YATES, 24-, of Tallahassee, FL is a graduate student in anthropology at Florida State University, focusing on underwater archaeology, human osteology and diving sciences. He's been involved in at least 10 projects, and is a member of Florida State University's Academic Diving Program.

Farewell, Miss Fossil



Joe Latvis



Mark Muniz

Six days after returning home from a gruelling August 1995 campaign of 100-plus degree days ARPP charter mascot Rhodesian Ridgeback "Miss Fossil" succumbed to a failing heart condition. She represented us proudly during every expedition, from the very beginning as a sprightly yearling in 1983 'til the end. Through it all she shared the privations and exhilarations of life in the field with the resilience, grace and humor so characteristic of our finest team members. Farewell, old friend.

-Joe Latvis

Adventures in learning



Gene Rowe, right, and Bill May

BY LEANNE WADE BEORN

Reprinted with permission from Life Style, courtesy of Style Weekly, Inc.

Far up in the hills of Yellowstone Park, with temperatures 20 degrees below zero, Richmonder Gene Rowe moves carefully on the snowshoes he's just learning to manipulate. He clammers up a bluff and pauses at the top to catch his breath: "I looked up and there, not 20 feet away, a huge buffalo stared back at me. We'd been warned to stay 100 yards from buffalo, because of their unpredictability, but there I was, knee-deep in snow, with this massive head and horns facing me. They say you can't go backwards on snowshoes, but I'm here to tell you I did. And fast."

Relating this anecdote, Rowe, a retired veterinarian, seems delighted at having been there, despite possible peril. New experiences and adventures and helping the environment while learning: This is what keeps the energetic and amiable Rowe going. He made his Yellowstone trip as an Earth Corps volunteer under the auspices of Earthwatch. This institution organizes worldwide environmental expeditions, using volunteer and professional staffers. Rowe went to Yellowstone to investigate the feeding habits of elk.

Since 1983, Rowe has volunteered on 34 environmental trips, sponsored by Earthwatch, the Smithsonian Institution, universities and other groups. He's monitored the eating habits of kangaroos and sheep in the Australian outback, measured volcanic fallout in the Siberian peninsula, reported on seagulls in New Zealand, observed baboons in Ethiopia and lived underwater for Paleoindian Artifacts in Florida.

The walls of Rowe's townhouse are covered with awards for underwater photography, a hobby he picked up as a result of his volunteer expeditions. Diving gear, camera equipment and slides in trays, cardboard boxes and paper bags clutter the shelves, tables and floors in the basement of Rowe's townhouse. As Virginia state representative for Earthwatch, Rowe frequently gives talks and slide shows to interested groups, sharing his commitment to environmental volunteering. He's packed his two underwater cameras and lenses into Igloo coolers, ready for his upcoming archaeological diving trip to Florida. In his garage are three small engines he's repaired for the University of Florida, which is sponsoring an upcoming dive to study a paleoindian canoe, which may be tens of thousands of years old. As with his photography, Rowe says modestly that "engine repair is just something I found out I can do. People bring me engines to be fixed and I tinker with them."

Even a brief conversation with Rowe reveals his boyish enthusiasm for life and his eagerness to learn about everything. After growing up in Ginter Park, Rowe went into the "family trade" of veterinary medicine. (His father and uncle were vets.) He founded and ran Fairfield Veterinary Hospital on North Side. "My work didn't leave me time to do much else," Rowe recalls, "and as I look back, I was burning out." In the late 1970s, he turned his hospital over to another veterinarian, and began to travel and see the world, often on diving trips.

He took his first environmental volunteer trip in 1983, with boyhood friend and fellow diver Bill May, a Richmond dentist. "We went to the little islands of Turks and Caicos, just south of the Bahamas, to teach poverty-stricken locals how to get more protein into their diet by 'farming the ocean for crabs'," Rowe says. "We stayed on the Smithsonian research vessel for two weeks, built containers, captured crabs and put them into containers we built." Rowe launches into a detailed scientific discussion of the farming method and an explanation of its effect on the islands' economy. He talks like this about all of his ventures.

Rowe knows exactly why he goes on volunteer research trips: "Well, number one, it's fun - I love meeting people, doing different work in different places, and I enjoy working with scientists and feeling useful. Two, I have a strong feeling that the accumulation of knowledge will have a positive impact on protecting the environment. As an individual, I'd be tilting at windmills, but as part of a research team, I can make an impact. Three, I get the most value from my travel dollar. On research trips you pay all your own expenses, but it's tax deductible because the research is for non-profit organizations. Four, I learn a great deal-I love to learn."

May, Rowe's frequent diving and traveling companion says, "Gene's brain is constantly working. I don't know anyone like him. He loves learning and has a great understanding of humans and animals. I have never seen him upset, short or angry with anyone." With ruddy cheeks, whitish-gray hair and beard and wire spectacles, Rowe looks a bit like a miniature St. Nicholas. His blue eyes gaze perceptively and kindly out at the world. He's quite fit physically, from regular swimming, diving and racquetball. Since his early retirement, he's taken two courses a semester at VCU. Before he turned 60, when he was paying tuition, Rowe "always took the courses for credit. But did you know after age 60, Virginia citizens can audit courses at any state school tuition-free?" he asks eagerly. "I do all the assignments and take the tests. I love to pit myself against the smartest kids in the class."

The Governor's Visit



Office of the Governor

Dear Dr. Webb:
I wanted to take a moment to say what a pleasure it was to visit your prehistory project at Nutall Rise. What an interesting site you have discovered! Dr. Webb, thanks for the historic relics you presented me with. I have a special place picked out where I plan to display them. Also, tell your wife, Barbara, how much I appreciate the shirt she gave me. Again, I thoroughly enjoyed myself, and I appreciate all you did. With kind personal regards, I am

Sincerely,
Lawton
Lawton Chiles



Jack Simpson

Governor Chiles visits ARPP Open House

From left, Governor Chiles, Jack Simpson and Dr Billy May



Jack Simpson

View from the riverbank

From left, Jack Simpson, governor Chiles, David Webb and Jim Dunbar view live action video of the excavation piped to the surface.



*Gov. Lawton Chiles (second from right) talked with Aucilla River Prehistory Project members Saturday near Nutall Rise. The Governor along with Rep. Allen Boyd, Rep. Marjorie Turnbull and some 60 other people attended the open house which showcased the project and its quest to learn more about early man and his coexistence with now-extinct animals. (Reprinted with permission, **Taylor Country Times**, May 24, 1995)*



Florida's funding of historic preservation

HONORABLE SANDRA B. MORTHAM

FLORIDA SECRETARY OF STATE

Each year since 1984 the Bureau of Historic Preservation, Division of Historical Resources, Department of State has administered a grants-in-aid program for restoration and rehabilitation of historic properties. Florida's historic and archaeological sites, as well as its history museums, are major contributors to the quality of life enjoyed by our citizens and visitors to the state. They bring a special "sense of place" and provide us with tangible links to our heritage. Major archaeological sites such as those being studied by the Aucila River Prehistory Project contribute valuable knowledge about Florida's earliest inhabitants, and are of national and international scientific significance.

In an effort to draw attention to the needs of historic and prehistoric sites and to help them gain needed financial assistance, the Department of State solicits a special category of grant proposals for major restorations, excavations and exhibitions. During the 1995 solicitation 105 were received requesting a total of approximately \$28 million. The twelve members of the state Historic Preservation Council reviewed these at a public meeting held in Tallahassee on September 11-13, 1995. The Advisory Council recommended to the Secretary of State that 49 of these projects, representing about 25% of the total requested, be forwarded to the Florida Legislature. We are currently engaged in the process of shepherding this request through the legislative process.

The Aucilla River Prehistory Project Phase II was ranked among the top ten projects in the special category grant competition. This grant will be used for underwater excavation, analysis and curation of recovered materials. It will also provide for publication of the findings, material for a new exhibit at the Florida Museum of Natural History to be titled *Earliest Americans and their Environments*, and a home page on the Internet. Many other sites will also benefit from the Department of State's grant program.

Allocation of funds to historic preservation has allowed the people of Florida and around the world to better understand Florida's rich history.

State funds archaeology project

"Taylor County Times" Sept. 6, 1995

Archaeological and Paleontological work being conducted by scientists from all over North America in the Aucilla River will be funded by a special category grant from the State of Florida. According to Dr. S. David Webb of the Florida Museum of Natural History, "This funding will allow work to continue in this ancient river channel. Many exciting discoveries concerning early man and now extinct animals have already been uncovered." The Aucilla River Prehistory Project and the Aucilla River Times have been financed in part with historic preservation grant assistance provided by the Bureau of Historic Preservation, Division of Historical Resources, Florida Department of State, assisted by the Historic Preservation Advisory Council. However, the contents and opinions do not necessarily reflect the opinions of the Florida Department of State, nor does the mention of trade names or commercial products constitute endorsement or recommendation by the Florida Department of State.

Distinguished service awards

Longtime friends of the Aucilla River Prehistory Project recognized the stalwart contributions of Jack Simpson and David Webb, presenting them with Seiko self-winding dive watches during the May 21, 1995 Open House ceremonies at Nutall Rise. Appreciation is extended to all those project boosters who helped make these presentations possible: Wilmer Bassett, Mary Gouchnour, Ed Green, Joan Herrera, Dr. Hoyt Home, David Janet, David Kendrick, Brice Ladson, John Ladson, Joe Latvis, Dr. Billy May, Don Munroe, Irvy quitmyer, Dr. Andrew Rogers, Dr. Gene Rowe and David Shea.



Representative Marjorie Turnbull's insight visit

BY JOE LATVIS

During the ARPP Open House held May 21, 1995 State Representative Marjorie Turnbull confessed to being more tantalized than satisfied at having viewed the live action video of the underwater excavation that we were able (for the first time ever) to transmit up to a TV monitor on the river bank. After divulging further that she already possessed a recreational scuba certification from a nationally recognized agency, we resolved to explore the possibility that she might actually dive on the excavation with us sometime as part of an insight visit to this state funded project.

After discussing the possibilities with UF Dive Safety Officer Dr. Robert Millott during the summer hiatus, a "visiting dignitary" status was extended to Rep. Turnbull for the fall field season, waiving the emergency medical certifications normally required of our working volunteers, in exchange for a requirement partnering her on the dive with Director of Diving Operations, Joe Latvis.

Undaunted by the dive buddy assignment, Marjorie (as we all came to address her at her own genuine insistence) arrived at Nutall Rise on the appointed day in October driving a pickup truck with a gearbag full of diving equipment in the back. After a few welcoming remarks from site manager Jack Simpson and a brief but thorough dive orientation discussion with Joe Latvis we proceeded down the two-mile long jeep trail through the swamp toward the world famous Page/Ladson site. Pausing on the trail only for a few minutes to observe close-up a family of wild hogs.

Foraging through the swamp, we arrived without further memorable interlude. Marjorie engaged in several conversation groups while circulating among the topside crewmembers, asking perceptive questions about the project, and disarming everyone's initial formality with her charming wit. Donning wetsuits and scuba equipment we descended onto the site, where Brinnen Carter and Don Munroe were mapping a fossilized deer antler rack they had just excavated from the 10,000 year old Bolen surface.



Representative Turnbull and Joe Latvis don dive gear in preparation for a first-hand tour of the site.



Divers in the water!

PHOTOS Mark Muniz

During the course of the 38-minute dive she was able to observe additional excavation, mapping and photo documentation activities firsthand. Her initial concern that she not jeopardize the integrity of the fragile site proved completely unfounded, as she demonstrated excellent diving skills, hovering neutrally above the exposed Bolen surface and communicating via the prearranged hand signals.

Upon our return to the surface, she was quite unabashedly infected with the enthusiasm that comes from having borne witness to this vault of fossils, artifacts, paleobotanical and paleoenvironmental treasures that lay undisturbed where they came to rest 10,000 years ago. It is an enthusiasm we have come to recognize from the many volunteers who return to the surface intoxicated by *their* first dive on these amazing time capsules. The field crew's pleasure on that sparkling north Florida autumn day was to have shared the otherworldly transcendental experience with someone who so thoroughly appreciated it's significance.

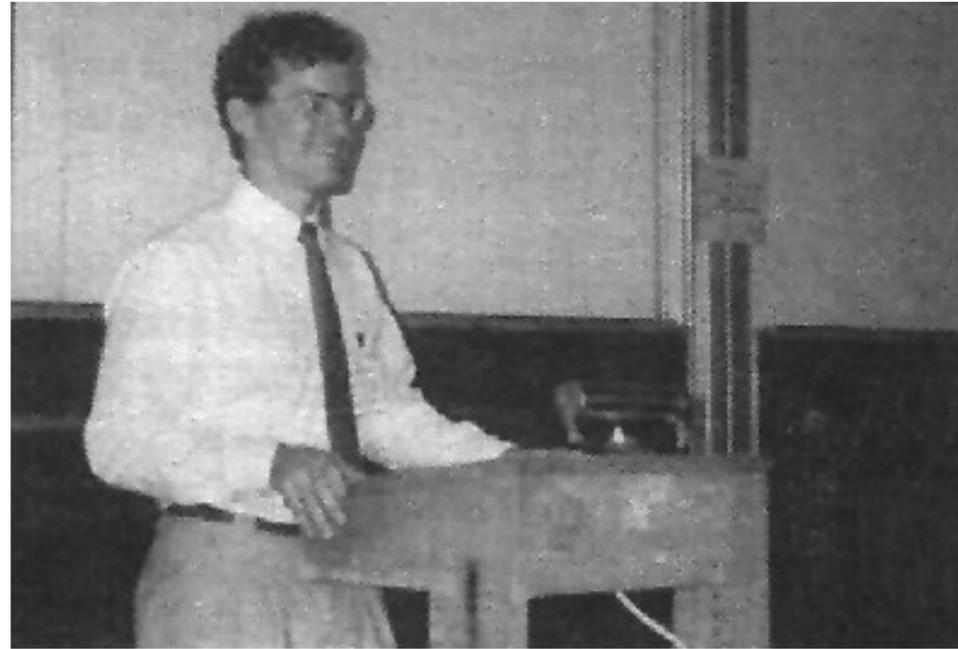


Mary Orbe

Representative Turnbull, left, meets some of the field crew. From left, Michael Faught, Jack Simpson and Randy Rush at the Page/Ladson site.

Public outreach and educational presentations

The crew of the Aucilla River Prehistory Project have been busy presenting lectures to various types of interested groups, including professional archaeologists, avocational clubs, community organizations, and school groups. The interest generated from earlier talks often lead to subsequent lectures in the same town.



Brinnen Carter at INQUA Congress in Berlin



David Webb narrates live action video to riverbank crowd during May 21, 1995 open house



UF diving support to ARPP

BY DR. ROBERT MILLOTT

The past ten years of the ARPP activity on the Aucilla River well demonstrates that with proper planning and attention to detail, a potentially hazardous environment can be studied in detail safely. Thus, in a river with limited visibility, moving current, entangling tree limbs, multiple hooked trot lines, sinkholes, suction dredges, and a fascinating bottom scene, we see a wide variety of divers from across the U.S. ([see "The Class of '95"](#)) with experience in many different sub-aquatic activities provide year after year of productive research into the early history of man and beast.

The Diving Science and Safety Program (DSSP) has worked closely with the Aucilla River Prehistory Project for several years. The general concern of the DSSP is for the safety of the participants. This has been evidenced by the careful planning and pre-dive contacts between the project and the DSSP. Each season prior to the actual diving, Joe Latvis and Dr. Webb have presented the requirements of the DSSP to all prospective ARPP applicants. In addition, they have written into their dive plan a solid basis for emergency response, and with careful planning established a minimal risk procedure for the dives. The concern for safety has even included simulated accident scenarios, one of which caused the chief scientist a major insect infestation with attendant discomfort.

The DSSP locker attempts to provide equipment to supplement that of the ARPP and its many divers. The Dive Officer completes check out dives and establishes scientific diver status for new volunteers. During the 1995 year, the Dive Officer made several trips to the Aucilla for check out dives, thus saving out-of-state divers the need to travel to the Gainesville area for such a challenge. During the last year, 17 new ARPP volunteer divers were certified to the university's research diver status. Several of these came from long distances and were necessarily given aquatic skills evaluations on-site. The remainder of their paperwork had been submitted earlier.

Diving conditions at the Aucilla River sites in 1995 were better than in the recent past, and the project established its own historical record in terms of the amount of bottom time accomplished. DSSP operational diving statistical summaries for 1995 reveal that the Aucilla River Prehistory Project logged 557 dives in accumulating 794.6 hours of bottom time; all without a single dive-related accident. Congratulations are due everyone involved in these landmark achievements.

Presenting the colors



UF Provost Andy Sorensen, far left, presents the school flag to ARPP principals, from left, Jerry Milanich, Jack Simpson and David Webb for display at the project site.

PHOTO Mark Muniz

Boosters

We would like to take this opportunity to acknowledge the many contributions of funds, equipment and services to the Aucilla River Prehistory Project since our last newsletter. We especially thank the Ladson family for their continuing hospitality, encouragement and support of this project's activities on their land.

Sustaining Boosters \$5,000 to 24,999

CSX Transportation

Supporting Boosters \$1,000 to 4,999

Eckerd Corporation

George Bailey

William Hancock

Contributing Boosters \$100 to 999

George Bailey Jody Barker Huddle Cheney

Kurt M. Cox Herve Cunningham Steve Glover Byron Herlong

Joan Herrera Elizabet Hoffman Roy Hoffman

Dr. Hoyt Home Hungry Howie's of Florida

Roy Lilly Dan F. Morse Don Munroe

D. H. Padgett, Jr. Dawn Finder Patty Schwarze (Old Spanish Sugar Mill)

Dean Sligh George Surratt David Thulman TomJ. Vereen

John Wight

Boosters \$10 to 99

Robert F. Acker Richard A. Caries JerryJ. Hyde

B. F. Inman Ruth Maxwell D. Bruce Means

AndrewJ. Rogers Randy Rush Robert Thornton

Dr. Richard Ohmes and the ivory collection

The Aucilla River has yielded the richest collection of ivory shafts in the New World. An important piece of ARPP research, describing and interpreting this collection, was submitted by Dave Webb, Jim Dunbar and Ben Waller to the journal *American Antiquity*. A majority of the remarkable pieces from the Aucilla River were donated by Dr. Richard Ohmes of Bremerton, Washington. Dick, shown here in his studio circa 1970, and his son Don worked extensively in the Aucilla during the sixties. Diving on two different occasions they found the two halves of the ivory shaft that represents the earliest piece of artwork in North America (featured in the 1994 edition of this newsletter).



PHOTO Dr. Dan Morse

Access to tools

Boating, scuba diving, archaeology and camping are all equipment intensive activities. The science of remote-site underwater archaeology, requiring a synthesis of all these disciplines, is of necessity extremely "gear" intensive. The Aucilla River Prehistory Project has survived since its inaugural year of 1983 solely because volunteers have contributed not only their considerable talent, but the use of their expensive personal equipment as well. Indeed, volunteerism and donations from our supporters were recognized by UF Provost Dr. Andy Sorensen at our spring 1994 Advisory Council Meeting as exemplary strengths of the ARPP.

While we salute the many individuals, institutions and organizations for their generous support, we believe that if we are to continue exploring these world-class archaeological sites safely, professionally, and efficiently, it is time to provide the equipment and services necessary to accomplish the mission.

In the course of preparing funding request documents, we have had to designate what the project's longterm objectives will be. Fulfilling these objectives requires certain pieces of specialized (sometimes costly) equipment.

Restrictions attached to institutional and public funding prohibit us from purchasing the capital operating equipment that sustains our perennial field seasons. We are therefore entirely dependent upon private donations for all such purchases.

If you wish to help our multidisciplinary team of professionals and volunteers accomplish any of these objectives, we will be deeply indebted. Listed below are some key goals. Donations in any amount or form are administered through the University of Florida Foundation, and are tax deductible to the limits of the law.

Please contact:

Dr. S. David Webb

Florida Museum of Natural History

University of Florida, Gainesville, FL 32611-7800

Access to tools equipment/services

* **Need:** To upgrade Aucilla River data exchange

***Item:** Modem for live communication

Cost; \$300

* **Need:** To mail Aucilla River Times

***Item:** Bulk mailing and labelling

Cost: \$250

* **Need:** To view (and review) dive action on land

***Item:** Television set (24" or larger)

Cost: \$300 and up

* **Need:** To excavate tough clays

***Item:** Six Marshalltown trowels

Cost: \$50

***Need:** Direct date on rare bone artifact

***Item:** Carbon date on bone apatite

Cost: \$1100 at Boulder, Co. lab

***Need:** Modern oxygen delivery system

***Item:** DAN oxygen first-aid kit

Cost: \$400

Introducing ARPP's students

No one on the ARPP gains a greater range of experience than our four regular students. On one hand, because of their youthful vigor, they often serve as pawns or roustabouts. From hurricanes to the Governor's visit, they pride themselves on rising to special occasions. On the other hand, they also participate at the highest, most creative levels of research design and scientific analysis. They are an essential part of the brain trust that designs new ways to recover and interpret some of the New World's richest records of early humans and their environments. Each of them must produce workable plans for reconnaissance, preliminary probing, subsequent excavation and analysis of new site results. And finally these students will write grant proposals and prepare publications that represent the ultimate products of the ARPP.

The four University of Florida students who are fully invested in the ARPP are, in order of their seniority, **Brinnen Carter**, **Andy Hemmings**, **Mark Muniz**, and **Lance Carlson**. We are proud of these students, and believe that their individual successes are entwined with the project's destiny. We provide a short sketch of Brinnen's history with the project, and a brief biography of each of the other three.

STUDENT PROFILE SPOTLIGHT

BRINNEN CARTER: One afternoon in the spring of 1988 two undergraduate Anthropology majors dropped by my office. Brinnen Carter and Robin Densen were excited about volunteering for the Aucilla River Prehistory Project. The project needed more divers for June. and these had archaeological experience, so I signed them on. I was impressed by their confidence and enthusiasm.

I will never forget Brinnen's arrival one day In June just about dinner time at our camp near Nutall Rise. His old Land Rover would have been interesting enough in its own right, but on its manifold he had wrapped a hunk of venison which exuded a mouthwatering aroma. Needless to say, he and his venison received hearty welcomes. Two weeks later we discovered where Brinnen had learned to pull off such gastronomic feats, for that is when his parents brought a fabulous Couscous dinner and cake for his birthday (June 15th). That summer and the next Brinnen and Robin worked very effectively on the various test pits that were developed at the Page/Ladson Site up on Half-Mile Rise.

Then Brinnen and Robin graduated; and he went off to Texas A&M to study with their great team of nautical archaeologists led by George Bass. I did not really expect to see him again at the Aucilla River. He pursued his Master's Thesis under Kevin Crisman, analyzing the armaments of the Boscawen, a ship sunk during the War of 1812. Then in 1991 Brinnen applied to the Ph.D. program at the University of Florida and rejoined the ARPP. We instantly agreed that he should take charge of the Bolen level at Page/Ladson, a level which he had helped uncover during his undergraduate days. The wealth of material on this late Paleoindian occupation level had been well dated, but would require lots of careful analysis; a perfect package for an archaeologist's dissertation. We were all delighted In June of 1992 to have Brinnen back on the site, and we enjoyed another of Brinly And Joan Carter's mid-June visits with birthday bounty. Tragically, however, Brinnen's father died that very weekend while he stayed at the Econfina River. We all miss him, and feel that our continuing the Aucilla Project honors his memory.

Another, much happier date in Brinnen's life is July 3, 1993 when he and Jennifer were wed in the First Presbyterian Church in Tallahassee, well attended by ARPP participants fresh from the river. Many of us (including Brinnen) had met Jennifer Castiglione the year before.

The rest of the story will be read in these and other pages, in which Brinnen will explicate the Bolen Culture. Jerry Milanich and the rest of his doctoral committee have great expectations.

STUDENT PROFILE SPOTLIGHT

ANDY HEMMINGs completed his undergraduate degree in Anthropology at the University of Arizona in Tucson. He has held an intense interest in the earliest Americans from a very early age. ARPP and Andy became acquainted during the summer of 1991 when he came from Arizona with Mike Faught to dive on Mike's Offshore Archaeology Project in the Gulf of Mexico. In 1992 Andy participated in the ARPP freshwater excavations, and in 1993 he was admitted to the UF graduate program in Anthropology. He is currently producing his Master's Thesis featuring the archaeology and paleontology of Sloth Hole.

STUDENT PROFILE SPOTLIGHT

MARK MUNIZ came to the University of Florida from the Tampa Bay Area and completed his Bachelor's degree in Anthropology in May, 1995. He had become well-acquainted with Brinnen Carter and Andy Hemmings the previous year during the Anthropology Field School taught in St. Augustine by Dr. Kathy Deagan. Mark has worked continuously with the ARPP almost since he graduated. He officially entered the Anthropology graduate program just this January.

STUDENT PROFILE SPOTLIGHT

LANCE CARLSON is an advanced undergraduate student pursuing a double major in Anthropology and Geography. Lance has considerable scientific diving experience: the past three summers featured coral reef work in the Turks and Caicos, British West Indies, underwater archaeology school in New Hampshire, and the ARPP program last summer. He hopes to go on to graduate school at UF, and continue work on the ARPP.

View From graduate school

BY MARK MUNIZ

My mom tells me a story about when I was 10 years old. As a fifth grade writing assignment I had to describe my likes and dislikes, and even forecast what I would be doing in 20 years. While I wrote that I would be an orthodontist to make lots of money, I said my hobby (and true love) would be archaeology. Even as far back as first grade I can remember digging for dinosaurs in my friend Kevin's backyard. After we had dug a rather large hole, Kevin pulled out a round object and proudly proclaimed that we had found a fossil. To this day I can distinctly remember quitting the game and going to look for real fossils by myself because all Kevin had found was a big rock. (Although there is the possibility that the object may have been a Clovis period chopper, or perhaps a unifacial scraper, we will have to wait for a phase two survey of Kevin's backyard before any conclusions can be drawn.)

So now I'm in a big university. I've graduated with a B.A. in Anthropology and I'm in the graduate program (ranked 13th nation-wide). What next? Research, reading and reports. I am basically doing the same thing now as when I will have earned a Ph.D., except right now I don't have tenure or a comfortable salary. Not to mention that my graduate slave-i mean student status means that I get to do most of the dirty work for the Principle Investigators. But that's O.K., I'm loving it.

The big deal at the Master level of graduate school is the thesis research that is new, or will shed light on a unique aspect of archaeology that has never been looked at before. That's where I'm at.

"On the Aucilla River we repair more internal (infernally) combustion engines by 9:00 am than most people do in a year." Welcome to the real world of archaeology. When I was a child my hero was Indiana Jones. Travel, adventure-and he even got to kiss the girl! The game is a lot different when you have to disassemble the six inch dredge screen and load it into a truck that is parked 20 feet uphill of a wet muddy bank with trees growing out of it. Or when you have to go through about 100 screens of tiny bone fragments all the same color of brown, and pick out the significant pieces.

The Aucilla River Prehistory Project has allowed me to become an archaeologist. I know I am still very young, and there are volumes of information yet to be read-but I've got the basics down. The plaster has been poured and the cast is now drying. But more than that, the ARPP has offered more to me, and everyone else, than mere vocational training.

At the University of Florida, and the Florida Museum of Natural History, archaeology has several excellent representatives. There is an effort headed by Dr. Keegan in understanding the prehistory of the Caribbean region. Dr. Kathy Deegan is one of the leading Spanish colonial archaeologists in the nation. Florida history, both pre-Columbian and post contact falls into the domain of Dr. Milanich, who is also one of the most respected archaeologists in the Southeast. The recent recruitment of Dr. Lynette Norr adds the Central American Formative Period as a new dimension. And then there's Dr. Webb heading the Aucilla River Prehistory Project.

The ARPP adds a much deeper temporal aspect to Florida prehistory. In its outstanding accomplishments over the past twelve years-it has sought to explore and document what local Florida collectors have believed for years-that the Paleoindian presence in Florida is one of the richest and most diverse in North America. This is what draws me to the research going on at Nutall Rise.

The terminal Pleistocene environment in Florida was unlike any place else in North America at that time. The distinctive karst environment of artesian springs and perched water holes resulted in aboriginal subsistence strategies different from the rest of the Southeast. What were these people doing here? When did they first arrive? How did they make their day to day living? What traits did they pass on to successive Archaic groups? These and many more questions are slowly being pieced together as each season passes on the Aucilla River.

Beyond the archaeology involved, there are a multitude of interrelated disciplines that contribute to our knowledge of the Pleistocene/Holocene transition in the Southeast. To fully understand what was going on one must include zooarchaeologists, paleontologists, palynologists, soil scientists, geomorphologists, paleoecologists and by no means least of all, a collections manager to insure that everything is curated and properly organized. The archaeologist is just the hub of the wheel.

So what will I end up with after all the dust settles? An M.A.? Sure, but I will take away much more than just that. I will have experience beyond description. I will have learned how to excavate (or not to excavate). I will have learned how to interpret 10,000 years of stratigraphic sequence under the dim orange haze of a 1000 watt light beneath 30 feet of Aucilla River water. I will have learned how to give a 4-5 minute presentation with 20 minutes of material. I will have learned how to lead, and more importantly, how to follow. I will have learned that a group of people who would have never known each other in one million years can become a family. And in the end, I guess you could say, I will have learned how to be an archaeologist.



View From undergraduate school

BY LANCE CARLSON

As an undergraduate student, opportunities such as those the ARPP affords are few and far between. It was a high honor to be part of the August and October field seasons. In addition to all the wonderful experiences I had in the Field, the opportunity to be in on the academic and curatorial processes undertaken in the Florida Museum of Natural History was unbelievable. I was able to observe the findings from their discovery in the sediments of the Aucilla to their curation and prepublication finish.

The ARPP has always committed itself to the implementation of sound scientific techniques and rigorous academic pursuits. With all the commitments that the project has had to live up to, it has never failed in its efforts to produce excellent scholars. Now more than ever, the project is living up to this commitment by including undergraduates. "We must get the young people involved. They are the key to the future of this project," suggests Jack Simpson.

As the October field season came to an end, I couldn't help but feel that this was another successful field season to reflect on. Beyond all of the intense academics, glorious finds and remote locations lies the key to continued success of the ARPP, the people. Of all the wonderful opportunities the ARPP has to offer, the most rewarding has to be in the friendships that are forged. During the field season and beyond, many of the team members act one big extended family.

I believe these types of friendships not only provide a more enjoyable working environment, but act to strengthen the credibility of the excavations. Everyone knows what everyone else is capable of, and the stimulus to do the very best is ever-present. There is almost no limit to where this project can go with all the wonderful people involved.



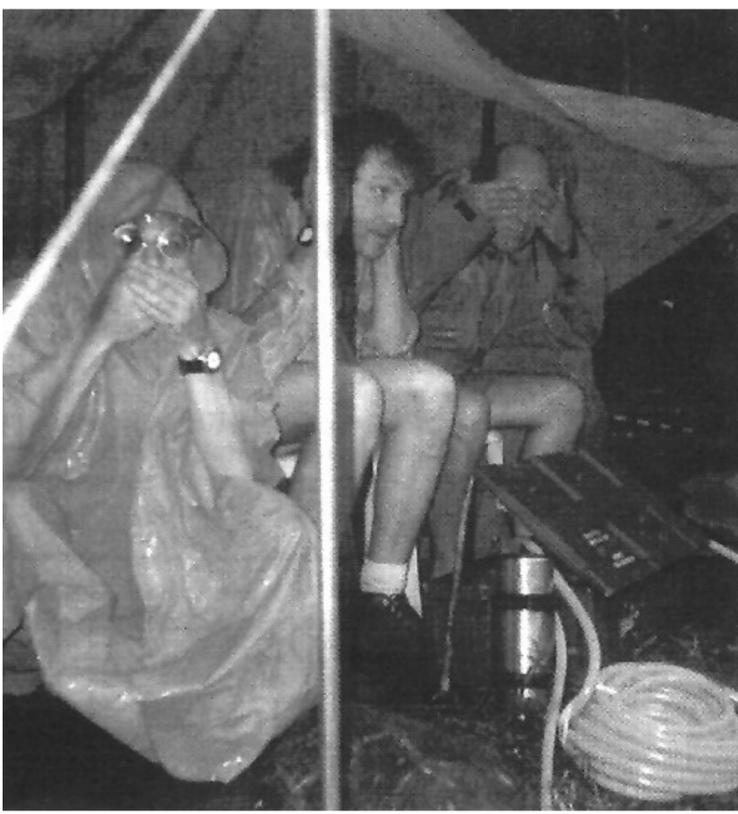
Another day at the water hole

BY JODY BARKER

Randy Rush and I were dive partners last August on the Aucilla at the Latviss/Simpson site. It was your typical, hot afternoon in the northern Florida Panhandle with a pleasant breeze. This would be my first experience with underwater communication. We would be able to communicate between each diver and also with the divemaster on duty topside via radio sets built into our full-face AGA masks. We had low visibility in the dark tannic-stained water. We were "hogging" out overburden sediment with the six-inch dredge. We had been down for a little over an hour, and the one thousand watt snoopier light was giving us a hard time. The light blinked a few more times and Elnally went out completely. Randy called upstairs to advise them he was sending me up to get a hand-held light to finish out our shift. Now you have to understand one thing about Randy, he has been a professional diver for many years. Traveling around the world doing commercial diving he has acquired an expertise in getting the job done efficiently. He has a tendency to be on the serious side, where, on the other hand, (which would be my left), we sport divers are not quite so serious. A few minutes later I returned with the hand-held light, and operations resumed. Randy was using the shovel, while I held the dredge in my right hand and the light with the other. We were hunkered down, going to town, cooking on the front burner, going through that overburden sediment as if there were no tomorrow! Well, just about that time the light got just a tad too close to the dredge and "whom!" in the blink of an eye, it sucked that baby right out of my hands and right up the hose! We both watched the light go up through the transparent hose all the way to the surface where it would be discharged unceremoniously onto the screendeck. I was laughing so hard I could hardly stand it. Looking over into my partner's mask, all I could see was Randy's patented "I don't believe this" look. About then, our radio silence was broken by the divemaster on the surface, "Hey, big boys, did you lose something?" I took a deep breath, and with a calm, cool, collected, even official sounding voice, I keyed my mike,

"YES, RANDY DID, OVER!"

Diving Operations Supervision



From left: Mark Muniz, Michael Faught and Steve Glover speak no evil, hear no evil and see no evil

PHOTO Joe Latvis

Archaeology, beer can collecting launch career



Reprinted with permission, St. Paul Dispatch, St. Paul Pioneer Press, "Route About", Winter-Spring, 1980

Andy Hemmings desired to be an archaeologist ever since he has been able to define the word. Archaeology is the study of past cultures and their remains. As might be expected, Andy collects fossils and has about eight arrowheads he found at a building site near his home. However, Andy's pet hobby is gathering something some people feel is reflective of our culture - beer cans.

As a result of can collecting, the upper half of the back wall of Andy's bedroom looks like a montage of beer commercials, row after row of beer cans held up by clips. That is only a sample of his collection. The majority of it is in storage. He has been at it for three years.

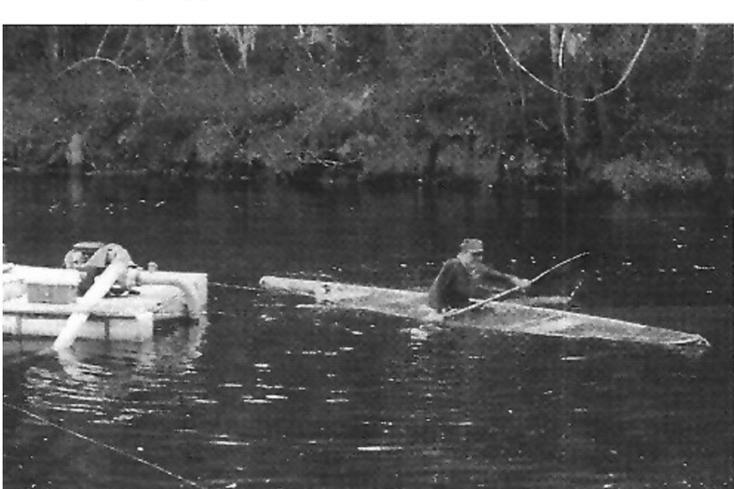
"I started collecting with a friend," Andy said. "Of course I had to try and outdo him. It just stuck."

Andy also enjoys playing on the St. Peter's basketball team. He is in 7th grade. His favorite subject is history. In fact, he is taking an evening course in Minnesota history, through Oneida Community College with his father.

"The question I would like to answer is 'who was in America first and why,'" Andy said. "If someone said Columbus, all I'd have to do to defeat them is say, 'how come the Indians met him?'"

In spare time, Andy likes to read 17th century historical books. But he keeps pretty busy. He has had a newspaper route for four years. His major plans are to buy a car and to go to college. He has one sister, Shannon, 10. They have three cats, Buttons, Spook and Bits.

A funny thing happened on the way back from the screendeck.....



Ed Green piloting a grumman submersible

PHOTO Michael Faught

Flasback to the flood of October '94



Jack Simpson, left, and Ed Green relocating the outhouse to higher ground

PHOTO Joe Latvis

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Dr, S. David Webb

Curator of Vertebrate Paleontology Florida Museum of Natural History

University of Florida Gainesville, Florida 32611-7800

Dr. Jerald T. Milanich

Curator of Anthropology Florida Museum of Natural History

University of Florida Gainesville, Florida 312611-7800

The Aucilla River Times is published on an annual basis to update a readership interested in the status of the Aucilla River Prehistory Project. This ongoing archaeological/paleontological research is sponsored by the Florida Museum of Natural History. This newsletter is published by the project management based at:

Florida Museum of Natural History

Attention:

Dr, S. David Webb

University of Florida Gainesville, Florida 32611-7800

Subscription to the Aucilla River Times is FREE.

Cover art

"*First Floridians*" by Marisa Rent. Permission to publish courtesy of the artist.

SUGGESTED READINGS

- **Dunbar, James S. and S. David Webb** In Press: Bone and Ivory Tools from Submerged Paleoindian Sites in Florida. Paleoindians in the Southeast, edited by **David G. Anderson**. University of Alabama Press.
- **Faught, M. F., D. G. Anderson and A. Gisiger** 1994 North American Paleoindian Database - An Update. Current Research in the Pleistocene. Volume 11, p. 32-35.
- **Knudson, Ruthann and Bennie C. Keel**, editors. 1996. The Public Trust and the First Americans. Corvallis, Oregon University Press.
- **Milanich, Jerald T. 1996**. Laboring in the Fields of the Lord-The Missions of Seventeenth- Century Florida [includes a side-bar: A Host of Would-be Conquerors]. Archaeology, 49(1):60-69). **1996**. Original Inhabitants. The New History of Florida, edited by **Michael V. Gannon**, pp. 1-1,5. Gainesville, University Press of Florida. **1996**. The Timucuas. Oxford, U.K. and Cambridge, MA, Blackwell Ltd. **1995. Florida Indians and the Invasion from Europe.** Gainesville, University Press of Florida. **1995. Recent Archaeological Research in Florida. Archaeology of Eastern North America 23:97-118.**
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