

BULLETIN 1
SOUTHEASTERN ARCHAEOLOGICAL CONFERENCE

Proceedings of the
Nineteenth
Southeastern Archaeological conference

Compiled and Edited by
Stephen Williams
Cambridge, Massachusetts
March, 1964

EDITOR'S NOTE

This first Bulletin of the Conference contains the Proceedings of the Nineteenth Meeting held at Moundville, Alabama on Friday and Saturday, November 2nd and 3rd, 1962. The University of Alabama and the Mound State Monument were again our hosts and provided us with unforgettable hospitality and a wonderful barbecue.

The fact that the Proceedings of the meeting are appearing in this form so quickly results from the work of Dave DeJarnette and his editorial assistant, Mrs. Eugene V. Smith, who recorded the papers, did the strenuous work of putting the tapes on paper and finally, and even more difficult, got corrected copy out of many reluctant writers. These completed manuscripts were then turned over to me for the final editing. Needless to say, they accomplished the bulk of the work involved and I tender thanks for the Conference members for this labor which they performed.

The Conference topic was "The Archaeology of the Paleo - Indian - Archaic Transition Period." A Roundtable discussion to sum up the findings of the important materials presented at the Conference was not held due to the lack of time. I for one, as Program Chairman, feel this was unfortunate but it was unavoidable because of an attempt on my part to try to squeeze too much into an already tight schedule. In looking at the results as a whole the impressive thing is that the data from Coe's work in North Carolina, from the sequence presented for the Ocmulgee Bottoms, from Russell Cave, and from the excavations at the Stanfield-Worley site give a very convincing and congruent picture of cultural succession for the period when Archaic cultures dominated the Southeast. The projectile point sequence first outlined by Coe in North Carolina certainly has been validated for much of the Southeast. These subsequent excavations indicate considerable cultural homogeneity over the area from the period of the Dalton horizon with its presumed temporal varieties to the late Archaic forms such as the Savannah River points. This long segment of time (perhaps as much as five thousand years, taking the earliest Stanfield-Worley date as the bottom of the sequence and the dates for fiber-tempered pottery as the upper date) can be effectively subdivided by the complexes that are being worked out in this area. This segmentation of the sequence, it seems to me, is an important contribution to the Southeastern prehistory.

Certain contributors either were not able to prepare a finished copy from the tapes that were recorded or were unwilling for one reason or another to have the material published. For the record, papers by Douglas Byers, Joffre Coe, and A. R. Kelly were given at the Conference but are not included in these Proceedings.

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The Nineteenth Meeting of the
SOUTHEASTERN ARCHAEOLOGICAL CONFERENCE

Members that Attended

Douglas S. Byers	Dr. Paul G. Hahn	David Sutton Phelps
Bettye J. Broyles	Carroll Hart	Philip Phillips
Vernon Carpenter	Harold Huscher	Rebecca J. Randall
Joffre L. Coe	John Earl Ingmanson	Robert L. Rands
John L. Cotter	Edward D. Jahns	Alden Redfield
Bob Crawford	Frederick Johnson	Martha Rolingson
Hester A. Davis	Bennie C. Keel	Frank T. Schnell
Clemens DeBaillou	A. R. Kelly	Douglas W. Schwartz
David DeJarnette	Edward B. Kurjack	Edward B. Sisson
William E. Edwards	Lewis H. Larson, Jr.	Hale G. Smith
Charles H. Fairbanks	Col. William C. Lazarus	Stanley South
Franklin Fenenga	Fred Lucas	Pheriba Stacy
Fred W. Fischer	Douglas H. McKenzie	Janet Turner
Sherwood M. Gagliano	Don Mackintosh	John W. Walker
William M. Gardner	Jackson W. Moore, Jr.	Dr. & Mrs. A. J. Waring
John M. Goggin	L. Ross Morrell	Helen Weber
J. B. Graham	Dan F. Morse	Stephen Williams
H. F. Gregory	Robert S. Neitzel	Steve B. Wimberly
John W. Griffin	Gregory Perino	Dick Yarnell

PROCEEDINGS OF
THE NINETEENTH SOUTHEASTERN ARCHAEOLOGICAL CONFERENCE
CONTENTS

Introduction	
Editor's Note	p. ii
Table of Contents	p. iii
List of Participating Conference Members	p. iv
REPORTS ON CURRENT FIELD WORK IN THE SOUTHEAST Chairman: David L. DeJarnette	
Florida * Georgia * South Carolina * North Carolina * Tennessee * Kentucky * Illinois * Arkansas * Louisiana * Alabama	p. 1
CONTRIBUTED PAPERS ON ARCHAIC CULTURE SEQUENCES Chairman: James B. Griffin	
POST-PLEISTOCENE OCCUPATIONS OF SOUTHEASTERN LOUISIANA TERRACE LANDS by Sherwood M. Gagliano	p. 18
THE EARLY OCCUPATIONS OF NORTHWESTERN FLORIDA by Charles H. Fairbanks	p. 27
THE ARCHAIC SEQUENCE IN THE OCMULGEE BOTTOMS by J. Earl Ingmanson	p. 31
PRELIMINARY REPORT ON EXCAVATIONS IN RUSSELL CAVE NATIONAL MONUMENT by John Griffin	p. 33
THE ARCHAIC OF THE WALTER F. GEORGE RESERVOIR AREA by Harold A. Huscher	p. 36
PALEO-INDIAN PROBLEMS IN KENTUCKY by Martha Rolingson and Douglas Schwartz	p. 42

REPORTS ON CURRENT FIELD WORK

FLORIDA: Charles H. Fairbanks

We had a \$1,200.00 grant from the National Park Service with which we conducted underwater salvage in advance of dredging at Ft. St. Marks in the "Panhandle" of Florida. Together with local amateurs, we have done a considerable amount of investigation of other areas in the St. Marks River. We had, in that ten-mile section of river, underwater sites which ranged from about A. D. 1650 until about 1850.

The other major projects which we had during the past year involved a problem originating in excavation at Ft. Gadsden for the State Park Service. The Ft. Gadsden complex was really two forts. The first fort, constructed in 1811, had been called Negro Fort. It was built by some sort of operators from British armed forces, who established it, equipped it, and supplied it with considerable amounts of munitions. Personnel were recruited from the budding Seminole nation and from runaway Negroes, who were residents in the Seminole nation. The Americans, naturally, took a dim view of Negroes being on a frontier or anywhere else around under arms. They sent a gunboat up the Apalachicola River through Seminole territory and, having found the range of the fort, fired a hot-shot and blew up the powder magazine. We excavated in this exploded powder magazine and found some interesting material. Some of it, we think, may be Choctaw material. Copper bands from powder kegs and quite a few musket balls, and very little in the way of guns or gun parts was found, due to salvage by the Seminole and Americans.

We did discover the octagonal outline of the powder magazine constructed of horizontally laid logs.

Then we moved out to the edge of the river where, during his 1818 expedition into Florida, Andrew Jackson had constructed the small outpost, or fort, called Ft. Gadsden. It served as a supply base, from which he went eastward to St. Marks and eventually to the Suwannee River. On returning to the fort he then marched westward and occupied Pensacola, which led to cession of Florida by Spain.

Here in this 1818 Ft. Gadsden, we found a considerable amount of military equipment dating from 1818. Infantry uniform buttons and cross belt insignia, and so on. It is a highly interesting historic site for it is one of the very few short term sites containing evidence of military occupations of this general period of 1818. One other site, in New York, has similar material, but it is from a much longer occupation. Here we have very tight dating for some military insignia, buttons, and other data that are not too well known in military sources.

In addition, we spent a summer field session at work on a whole series of detailed minor stops. At the restoration in St. Augustine, we held an eight-week session of ten students, plus volunteers from time to

time. These excavations uncovered wall-footing and sonon of the early 1700's and middle 1700's in St. Augustine. They were highly-useful, having been specifically requested by the Historical Commission in their planning of restoration, but they were not extensive enough to really expand our knowledge of materials, etc., of the Spanish period.

FLORIDA: William C. Lazarus

About three or four things might be of interest in the Fort Walton area. An early Pensacola town site has been definitely identified as the 1700-1750 site there. It occupies an acre and a half in a Florida State Park. It seems to be relatively undisturbed. We are keeping the site out of circulation. Only a few people know where it is. It ought to be pretty tight time dating, since it was destroyed by a hurricane in 1750.

We have also done a salvage highway job in Santa Rosa County. It's about 1,500 feet back from the water, and there's a little Ft. Walton Period site there. This is what appears to be a town site--the first of this sort. Usually they are right on the water.

Recently, under a permit which Florida State University obtained, we were able to do our first real salvage type of operation of Eglin Air Force Base. Under the Federal Act, one can't legally dig on a federal reservation without a permit but the bulldozers can push the stuff around and do it legally. So we got a permit, and I was able to get into an area where a Trailer Park was to be built to accommodate a British contingent.

I arrived first on the site and found about thirty small midden piles scattered over an area about 400 by 75 feet. I was able to sample this and found that it appeared to be Ft. Walton. I guess I'm the luckiest guy that could be, on this particular site. I picked the most inland part--the part which the bulldozers would reach first--and said, "Let's start here." And in the first pit I came right down on top of a Pensacola incised bowl that was there. This was the only major artifact from the entire site! The other pit produced two or three sherds and that was all.

We did find a row midden. (You may recall my discussion last year of these phenomena. I did have some row middens from a site near Pensacola.) Here, again, lay a north-south-oriented row midden about one hundred feet long and about twenty feet wide. It was a solid midden layer about six inches deep. We're not sure yet of its significance.

And now for my final item, we haven't had many projectile points show up on the Gulf coast in the past years, but now that we have opened the Temple Mound Museum in Fort Walton Beach, people are beginning to bring in things that we've never seen before. Some of these collections run as high as 150 or 200 projectile points collected from that area.

In an attempt to catalog them, I have come up with about eighteen that I would consider to be basally-ground Paleo-like types. There are many Archaic, but out of this whole mass of points, I can only identify two Mississippian points. Judging from the types examined I don't think that the Mississippian people down there used stone points very much, though, they are hard to find--being little things and sliding through screens quite easily.

GEORGIA: Lewis Larson

For the last seven or eight years, my reports on recent field work have been concerned with Etowah. This year is no exception. We worked again at the site this summer as part of the field school situation with Georgia State College in cooperation with the Georgia Historical Commission. Mound C has been excavated, so we worked in the village area some 308 feet east of Mound A, where we encountered the plaza area, which, to me, was very revealing.

It's a paved area, some, at least 260 feet north and south, elevated about eighteen inches above ground surface. It's dirt pavement construction. We didn't get all of the dimensions, and we assume that it runs some 300 feet up to Mound A. We do have the eastern edge, running along here, and the corner--the northeast corner--of it. We don't have the southern edge or the western edge as yet. Several amounts of dirt removal will be necessary here. The eastern edge of the plaza proper was enclosed with a wall trench, which presumably provided some sort of screen for activities on the plaza area. The plaza was perfectly clean--there were no other constructions in the area that we exposed--although subsequent occupation of the Lamar situation had disturbed it over a great deal of the surface.

We also excavated a small portion of the palisade, which lies immediately inside the moat. Here, a wall trench construction had been used and cut. A pole, rather deeply embedded in some four feet of ground, indicates, perhaps, the massiveness of the palisade and its presumably regular bastions. We encountered one corner of them, although we exposed no complete bastion.

A trench was dug across the moat and we were able to determine for the first time that it had never contained water; no sedimentary deposits were revealed. The moat consisted of vertical walls approximately sixteen feet deep and a flat base. This construction leaves no question about the primarily defensive function of the moat. Certainly it was a source for clay and mound construction, but the regularity of its sides indicates, I think, its primary purpose here.

The bastion, or the palisade, rather, and the moat, all fall in the Willbanks period--post-Etowah and post-Hiwassee Island. The climax situation at Mound C was also Willbanks. I am inclined at this point to consider the entire site as a manifestation of Willbanks--quite late in the Etowah Valley sequence.

We also did field work in one other area in Georgia. The Stone Mountain Memorial Association provided funds for excavations in the area of Stone Mountain to the east of Atlanta, and here several Archaic sites were excavated. One site on the Yellow River, which displayed some time depth, was worked. Though the material has yet to be analyzed, I think it indicates a possibility of a good stratigraphic sequence of the area. The site was excavated by one of the students at Georgia State. We have some charcoal from the site and the promise of dating on several of the occupational levels there.

SOUTH CAROLINA: William E. Edwards

Our intermittent work during the past year has continued to be concentrated in the colonial settlement of Ninety Six, associated with a British fort in the frontier zone of South Carolina. We have done some further excavation in the courthouse area and the jail. All but about ten days of the planned excavations have been completed. It was expected that the report on this work would be prepared during the last half of the summer, but my illness during that entire period prevented this.

We are now working out some tentative plans to excavate portions of the Revolutionary fortifications at Camden, not far from Columbia. I am also doing some very limited work on Indian sites with students in an archaeological field work course.

For the last three years I have been South Carolina State Archaeologist, but we have been dependent upon the University for funds, and the research funds there have been quite limited. We have also been dependent upon county historical society funds, likewise limited. We are hopefully continuing to work on the possibility of getting more direct state help with this rather important financial problem. More direct backing from the administration of the University and increased help from the various historical associations in the state give rise to guarded optimism. We are also enjoying more active effort by the members of the South Carolina Archaeological Society.

I'll close by a few comments about the society. It remains small, as could be anticipated, but the membership is increasing. Last spring it began producing a monthly newsletter which has just been converted into a much larger quarterly publication. Quite a few members are expending much effort in producing this. Considering that professional assistance has been more limited than is desirable for any society, I think this group has been performing very well. One small source of professional assistance to the society has been my own contributed time, but this, of course, has been somewhat limited. I am sure many of you have faced the same situation. So we're getting something done and we're optimistic about things moving along at a much better pace in the future.

NORTH CAROLINA: Bennie Keel

Excavation commenced with test squares and exploratory trenches opened with a light bulldozer. Typical of the basin were the large bell-shaped and barrel-shaped pits which contained nothing but sterile fill. Refuse pits contained the normal village debris. This pit contained a Kirk point, a late variety of Savannah River point, a slate gorget and Late Woodland ceramics. This situation was quite common on the site--artifacts ranging from the Archaic mixed with materials of the last Late Woodland occupation. The archaic materials were probably brought up onto the later ground surface by this preoccupation of digging the large pits noted previously. Some twenty odd burials in addition to two dog burials were uncovered. These burials were from the Middle and Late Woodland occupations. This is typical of the middle period burials, flexed and in very deep pits. This burial pit had a depth of at least four feet. The child burial is typical of the Late Woodland burial type on the Carolina Piedmont. The quite common beaded garment,

necklace and gorgets are all present. These garments embroidered with *marginella* shells were worn and evidently are not decorated blankets. Exploratory trenching with the bulldozer uncovered a palisade associated with the Late Woodland component.

At Town Creek Indian Mound State Historic Site we are presently working in the southern part of the plaza in an attempt to delimit its size. When this is completed reconstruction of architectural features associated with the plaza will be accomplished. During the past year we have completed the reconstruction of one of the typical circular mortuaries. In contrast to other sites we have closed in the burials and closed out the observers. Viewing is done through windows placed high on the wall and concealed by the roof overhang. The State Department of Archives and History has recently completed a permanent Visitor Center-Museum and it is hoped that it will be operating in the early spring.

NORTH CAROLINA: Stanley South

Besides the continued archaeology of the ruins of the eighteenth century town of Brunswick at Brunswick Town State Historic Site in North Carolina, we have been continuing our survey of Indian sites in the area of the Lower Cape Fear River. These squares on three sites produced Fiber-tempered Plain, Steatite-tempered Plain and Thom's Creek Punctated ceramic types. As far as I know this is the northernmost extension of the Fiber-tempered type, and the southernmost extension of the Steatite-tempered Plain type. The primary types are the sand-tempered Cape Fear Series, and the sherd-tempered Hanover Series.

Surveying islands in the White Oak River near Swansboro, North Carolina produced a collection of material in which 87.5 percent were of a single shell-tempered fabric impressed type we have called White Oak Fabric Impressed. A burnished type from the same area may represent the proto-historic and historic period, and has been given the name Swansboro Burnished.

Work was also done during the past year at Charleston, South Carolina on the campus of the Citadel in examining an historic house ruin of the period of 1690-1720 in which a highly burnished type Indian pottery was found along with the English ceramics of the period. This pottery is very similar to that being made by the Catawba at Leslie, South Carolina, today.

TENNESSEE: Dan Morse

This summer's excavations were conducted at the Barkley Reservoir, which is on the Cumberland River, north and west of Nashville on the Kentucky border. The excavations were directed by J. B. Graham. Twenty-six sites in all were investigated: twelve were surface-surveyed; six were tested very slightly; and eight were tested extensively.

Early Archaic remains were found at three sites, rare at two sites. A Kirk Serrated component was found at the third site. One hundred and twenty Kirk Serrated points were collected, plus one country cousin of Milnesand; sixty other points were Archaic types--Eva, Cypress Creek, Big Sandy.

Several hundred flint fragments: various types of choppers, scrapers and knives: a good bone sample: some flat, slate abraders: two grooved atlatl weights or bola stones were among the material recovered. Two burials were found. The first, that of an individual fifteen to seventeen years old, contained three Kirk points, a knife fragment, a hammer and a flake scraper; the second, of an individual in his late thirties or early forties, contained no associated artifacts.

Late Archaic material was found at three sites on eroded ridges. Most of the artifacts were found on the surface. Two well-made Motley points were collected at one site.

Early Woodland material was present in a small component at the Kirk Serrated site. It consisted of a few sherds, Adena Stemmed points, pipe fragments, bone tools.

The Mississippian Period was represented at five sites, two of which contained over half the material collected. Data are summarized below.

Sherd types included Neeley's Ferry Plain, Bell Plain, Barton Incised, Salt Pan, Old Town Red Filmed, Hollywood White Filmed.

Twenty-one stone box burials were found in an area that was badly potted. Six males, seven females and eight children were buried here. Also, three adults and one child were found at another site. Burials were extended on their backs, faces up. They were not crowded--grave dimension was four to six feet by one to one and a half feet by ten feet. They were in a most unusual orientation with the river--their heads face downstream. They were simple box graves with few overlapping slabs.

Artifacts included: five vessels--one jar and four bowls (one of them a fish effigy), one large sherd and pottery trowel, a ceramic owl effigy pendant, a large flake, a hammerstone, a limestone disc, a scalloped purple fluor spar pendant, two cannel coal abraders, a bone hairpin, two deer ulna awls, two conch shell gorgets, three mussel shell spoons and a copper-covered wooden bear canine effigy rattle.

In summary, then, the Tennessee portion of the Barkley Reservoir excavations included a possible Fluted Point component at an Archaic site; several early and late Archaic components; a small early Woodland component; a possible late Middle Woodland component at one site; and several Mississippian components.

KENTUCKY: Douglas Schwartz

A project on Paleo-Indian that we have been spending most of our time on will be reported later in the meeting. In river basin projects we worked in the Barkley Basin, on the Cumberland River, where we concentrated on Mississippian sites. We had previously excavated Paleo-Indian-Archaic material, a late Woodland site, and a Mississippian stone grave cemetery, and this year we were working in a village and on a small mound which was associated with the stone-grave area in order to get a better idea of the ceramic stratigraphy. Three distinct levels were distinguished--two Mississippian, separated by an almost non-Mississippian one (or slight Mississippian with some other elements).

We had carbon-14 dates on the upper part of this Mississippian village at about A.D. 1662. In the village site one small, single-component, Mississippian site was excavated where we were trying to get early Mississippian material.

We also worked in the Barren Reservoir, which is in the upper Green River region. Concentrating here in preliminary testing, we investigated one Archaic and two Mississippian sites. One of the Mississippian sites contained not only a village and a mound, but what appeared to be a plaza area. So we have Mississippian material far up the Green River, a respectable distance out of the general range of highly developed Mississippian material in the middle Mississippi Valley.

We also worked in the Fishtrap Reservoir area, which is on a tributary of the Big Sandy River, situated in the eastern mountains of Kentucky. The important thing here, I think, is that all of the sites except one were late prehistoric and had a Fort Ancient-like appearance. It doesn't appear as if there was any major occupation in this area until late prehistoric times, when it was pretty heavily occupied. There were several fairly large Fort Ancient sites. The Barren material in the upper Green River also had a Fort Ancient-like appearance. What we're beginning to see is a watered down Mississippian influence in the upper drainage basins in Kentucky.

I'd also like to mention that we obtained six carbon-14 dates in connection with our Mississippian work in Kentucky. One of these, from the Michigan laboratory, dates the stone grave cemetery in Barkley Basin at A.D. 1390. All the rest from Mississippian villages were dated by Isotopes, Inc., in New Jersey. All but one of the samples were from wall trench deposits; the one was an individual post wall house. They date from A.D. 1487 to A.D. 1692, with four of the dates concentrated in the 1600's. Now the fact that all these last dates come from Isotopes may be significant. The 1390 date from the stone grave cemetery seems to fit fairly well with the ceramics. On the other hand, the 1600 dates seem to fit fairly well with the Kincaid dendrochronology.

ILLINOIS: Greg Perino

We had two digs this year and spent a total of seven months in the field, recovering over 550 burials of Late Woodland, and acculturated Mississippi and Late Woodland peoples, the acculturation involving an Old Village group and a Jersey Bluff group; the Late Woodland mounds and the Mississippi cemetery being located at the Schild Site, Greene County, Illinois.

The Schild cemetery is located on the eastern bluff of the Illinois River. Archaeological features consisted of nine Late Woodland mounds which were investigated and three others that were not. A small Mississippi temple mound also exists below the bluff on the flood plain. Mound 9 contained a subfloor tomb and Late Woodland burials. It was 90 feet long and abuted against a natural knoll. With completion of excavation on Mound 9, it was found that 300 burials continued to exist down the hillside and that these no longer were flexed like the Late Woodland burials had been, but that some had been semi-flexed and extended. Artifacts also accompanied these remains, some vessels being of a peculiar type. A study of the situation indicated that a Jersey Bluff Late Woodland group, and an Old Village Mississippi group had acculturated at this site and their products often contained mixed traits.

Although most artifacts were purely Mississippian, some jars were mixed, having shell temper and a Late Woodland form. Many had smoothed over cordmarking on the body surface, and rims peculiar to Late Woodland ceramics.

On the knoll where Mound 9 had ended, burials were most often interred in semi-flexed position and the further away the excavation progressed, burials were more and more extended until at the south end of the cemetery, nearly all burials were extended. The Late Woodland burials found in Mound 9 were interred without artifacts and consisted primarily of adults. Those found in the cemetery consisted of very many infants and children as well as aged adults, and nearly all remains had artifacts with them. Burials in the Mississippi cemetery were often found one above the other three deep possibly in family groups. It was noted that these groups were clearly separate from others if only by four or five feet. Bundle burials were rare and cremations were found only three times.

Vessels diagnostic of these people consisted of a limited number of varieties as these people were quite selective. In order of numerical importance the types are: St. Clair Plain, Schild Plain (the mixed trait pottery), Ramey Incised, Powell Plain, and Cahokia Red Filmed. Vessel types were; low profile jars with angular shoulders, high profile jars with rounded shoulders (Schild Plain), constricted mouth bowls, beakers (plain and effigy types), rim effigy bowls, and bottles. Bowls and bottles were rare and only a few were found. Other artifacts consisted of hammer-stones, sandstone saws, sandstone shaft abraders, bone awls, a fish hook, hair pins, skulls of weasel and mink: turkey, snowy owl, and Cooper hawk wing bones and leg bones, multi-notched triangular points, large Cahokia knives, Cahokia discoidals, copper-covered wood, bone, slate, and limestone earspools, pipes, long thin antler staffs, flake knives, celts, and beads. The ornaments consisted of a great variety of shell such as 8000 beads made from conch shell in disc, barrel, and tubular form. Beads made from whole shell were the *Marginella* and Dwarf jasper olive shells. Pendants made from shell were the small conchs, one Banded tulip shell, and one Shark-eye shell. Other beads were made from pearls, and rolled copper, with a few ground from the hinge of mussel shells.

Unusual items consisted of filed teeth, found in the skulls of three individuals and a pipe made of red stone similar to pipes found at Spiro and Cahokia.

When we finished there, we went to the Peisker Site in Calhoun County, Illinois where three Hopewell Mounds are situated on a sand ridge near the Illinois River. An early Hopewell site is indicated by the type of sherds found on a thin village strata located under Mound 1. Mound 1 was the second mound built by these people. Mound two, the first built, was situated about three feet higher on a sand ridge a few feet south of Mound 1. This mound has only been partly excavated and work will resume there in the spring (1963). In the course of excavating Mound 2 located on the highest part of the sand ridge, we began finding Black Sand sherds in the ridge surface. Carrying excavations to a deeper level, we came upon six flexed Black Sand burials one of which was covered with red ochre, and about five hearths some of which contained enough charcoal for use in carbon dating. We also recovered three-fourths of a Black Sand Incised jar and more than 200 Black Sand sherds having incised, punctated and pinched design elements on them. Two sherds were from flat bottom vessels and three were cord-marked internally.

There was another stratum of sand four feet below the ridge surface that contained the Black Sand assemblage, which had many small flint flakes scattered on it for a wide area that must have been derived from an earlier Archaic culture. This will be further investigated next season.

Historic burials were found shallowly in the tops of each of the mounds excavated, one in Mound 1, and two in Mound 2. They wore silver buckles on their heads, brass cones in the hair, silver ear rings, tiny white porcelain beads, and one burial had a glass mirror and strike-a-light; another had a small rectangular pipe of late vintage. Mound 1 had been excavated by whites so long ago that one historic Indian was found in the back fill.

ILLINOIS: Dan Morse

I would also like to say a few words about Illinois, for I have done some excavation there this summer. The University of Indiana excavated some Red Ocher burial sites approximately fifty-five miles south of Peoria, Illinois. The excavations were supported by a National Science Foundation grant to the University of Indiana which was made, by and large, to introduce high school teachers to recent advances in physical anthropology. As part of the program, they excavated at these Red Ocher burial sites for a period of two weeks. The main objectives were to obtain Red Ocher skeletal material and to increase archaeological knowledge. Forty-five students participated, and we were able to get enough data to separate two possible foci, which are outlined as follows:

- I. Flint daggers (8" and 14")
 - Boatstone and stone gorget
 - Galena beads
 - Disc-shaped mussel shell bead
 - Two-holed sandle-sole gorget (classic shape)
 - Conch shell pendant (drum effigy)

This focus generally contained less red ocher than the other. Almost every burial contained burial associations. No copper artifacts have yet been found.

- II. Stemmed and unstemmed cache flints
 - Copper axe
 - Copper gorget
 - Copper tubes and small, heavy beads
 - Pearl beads and calcite beads
 - Conch shall vessel

A great deal of red ocher was present on burials of this focus. Only about one sixth of these burials contained associated artifacts.

Similarities between these burials include the presence of red ocher, individual graves, flexed burial position, conch shell beads and similar gorget shapes.

The so-called "Red Ocher mounds" are not mounds at all, but rather a result of the by-product of pit digging. In other words, you dig a pit and loose dirt is strewn around the edge of the pit. After you have dug fifteen of

these pits you have a low mound. It is not an intentional effect and it would be better to call Red Ocher mounds, "Red Ocher cemeteries," as a result. The artifacts found with the burials are not duplicated in village- or camp-sites in the area. Apparently these artifacts were made expressly for burial.

At the same site, we found some stratigraphy, which would have made everybody happy fifty years ago but which now means practically nothing. There were late Woodland mounds on top of the Red Ocher burials, and an Old Village house, which was intrusive into one of the late Woodland mounds. The Village house was associated with refuse pits, which had Old Village-like material in them. In addition there was what looked like a Maples Mills campsite on a ridge below the mounds.

ARKANSAS: Hester Davis

The first work that the University of Arkansas Museum did during 1962 was at the Crenshaw site in Miller County, which is in the extreme southwest part of Arkansas. We received an emergency grant from the National Science Foundation to work for a month at the site. There are five or six mounds there, the largest of which, Mound C, is about 30 feet high. This mound was excavated for a year prior to our work, by a collector from Texarkana, and he had pretty well chopped through it. However, through the cooperation of the REA, a power pole set in the top of the mound was not moved until after our work began. Because of this, a center block remained, and we were able to salvage some information as to the stratigraphy of the mound, as well as to uncover some Caddoan and Coles Creek burials. The rest of the material was pretty well churned up or already gone. Dr. W. Raymond Wood, who lived there in the field for a month, is currently writing up the report.

During the summer the University's archaeological field school excavated in one open site and two bluff shelters in the area to be flooded by Beaver Reservoir in extreme northwest Arkansas. This is Ozark Mountain country. Bluff shelters have been known for forty years, but until our survey of the reservoir area, open bottom land sites had not been recorded. Approximately 150 camp sites have been noted, but most are small, or within the plow zone. Only two have produced any pottery, and at that only three or four pieces. Many of the shelters within the reservoir were excavated either by M. R. Harrington of the Museum of the American Indian in the 1920's, or by S. C. Dellinger of the University of Arkansas Museum in the 1930's. One of these, Breckenridge, has been the scene of testing by the University Museum and Park Service crews the past three years. This was our final season there. Tests there last year and this past summer have gone down approximately ten feet, through ceramic layers, into early Archaic material. Dellinger's work did not go below about three feet, but recovered numerous pieces of perishable material which means that we will have a pretty long occupation to work with. We hope this site will tell us a good deal more than we know now about Bluff Dweller and Top Layer cultures.

The National Park Service has two projects in Arkansas this year: Fred Bohannon has been excavating at the Mineral Springs site in Millwood Reservoir, just above Texarkana. His field work is just about finished for the season and he will spend the winter at the Museum in Fayetteville working up the material. Smokey Moore has started work on the excavation at Old Fort Smith.

In addition, Jim Ford has been based at Helena, Arkansas this year, working on his survey of Archaic sites in the Lower Mississippi Valley. I believe their field work is now finished.

The state archeological society is also reasonably active: two different groups are excavating bluff shelters in the northern and central portion of the state, and at least two sites are being excavated by Society members in eastern Arkansas.

I am pleased to be able to say that the University Museum is about to launch on a publications program. Ray Wood, working with our National Science Foundation grant, has at least two manuscripts finished and in the next eight or nine months will have a couple more. We have a slight problem getting money for these, but when we do, the first to be published will be a small report on salvage excavation of the Denham Mound a Mid-Ouachita Focus Caddoan mound. Then eventually we'll have the final report on Breckenridge, and Crenshaw, and others.

I am responsible for telling the world what is going on in the southeastern part of the United States, at least as far as the pages of American Antiquity are concerned. You will be hearing from me again quite soon, in order that the information about what's been going on in the past year can be covered in the April issue of American Antiquity. I am not thoroughly acquainted with everything everybody is doing. I'd greatly appreciate detailed information, as well as reprints of articles, so that I will be able to tell others of what has been going on.

LOUISIANA: Pete Gregory

Archaeology in Louisiana can be summarized in the following progress report. One of the main problems is a lack of any state survey or funds for such.

Gagliano's coastal studies involve work on the Archaic occupation of southeastern Louisiana and the ecological-archaeological relationships at Avery Island, Louisiana. He has had help and assistance from the Office of Naval Research and the Coastal Studies Institute at Louisiana State University. Also his excavations at Avery Island were partially financed by the McIlhenny Foundation.

Ford and Webb are continuing their work on Poverty Point collections. Ford is working on braided stream Dalton.

Roger Saucier's paper on the Geomorphic and Archaeological History of the Pontchartrain Basin was a project of the Office of Naval Research, Coastal Studies Institute and Louisiana State University Press has it in press.

Mr. Jon Gibson of Northwestern State College in Natchitoches is working on a survey of sites in LaSalle, Winn and Grant Parishes as well as on a Tchefuncte Period site in LaSalle Parish.

Dr. Webb is working on a historic site report from Colfax, Louisiana, a Pascagoula-Biloxi European contact site. He is continuing his work on Caddoan area problems, as they pertain to Northwest Louisiana. Also he and James A. Ford are reworking collections from Poverty Point.

The combined efforts of Louisiana State University, the University of Texas (Dan Scurlock) and Northwest Louisiana State College are being directed toward a river basin reconnaissance on the Sabine River, due to the Toledo Bend Project. Sites range from Paleo-Indian (Scottsbluff-Plainview-like points) to Fulton Aspect Caddo. Some sherd collections show Lower Mississippi Valley influences here also.

The University of Texas is doing both sides of the river. Scurlock has finished reconnaissance. Work is to proceed this month. Evidence of old Archaic and later Fulton Caddo has been found but no historic material. The initial tests have been finished and several projects merit further work.

A surface collection was made on the edge of the site of an old Spanish presidio and Mission, (it was far out of the reservoir), and some interesting relationships were indicated. It was a French Spanish contact site, and was established to serve the Caddoan sub-group, the Adaes. There was prior Indian occupation. The Presidio was built in 1714 and was active until 1748. On the next hill to the southeast was the Mission of Nuestra Senora de los Dolores de los Adaes, which was abandoned in 1717. The site's collections by Franklin Fenanga are stored at the University of Texas. They were made in the 1940's.

I am at present working on the ecological-archaeological relationships at a series of sites on Catahoula Lake in Central Louisiana. Sites here range from a distinct Archaic with antecedents in East Texas and Arkansas Archaic and relationships to Poverty Point through Red Jasper, microlithic materials, etc. All the Red River Mouth Sequence is also present: Historic, Plaquemine, Coles Creek, Troyville, Marksville, Tchefuncte, and Lithic. Mixed in with several typical Lower Mississippi Valley-like collections from this area are distinctive Caddoan types, both points and ceramics.

LOUISIANA: Sherwood M. Gagliano

A Preliminary Report on the Archaeology of Avery Island

Avery Island is a piercement salt dome with marked topographic expression located in the coastal marshes of South Central Louisiana. It is one of a trend of five such domes in which the salt is at shallow depths or has reached the surface. Uplifted Pleistocene and older sediments capping the domes have created topographic highs, which in the flat prairie and marsh country of South Louisiana stand as anomalous hilly areas. The island is approximately two miles in diameter, with elevations attaining 100 to 150 feet.

Because of its unique physiography and the existence of saline springs, Avery Island has been particularly attractive to animals and man for thousands of years. Ponds, developed by the solution of the underlying salt, created excellent environments for the preservation of fossils and human artifacts. One such pond, known as Salt Mine Valley (figure 1), has yielded an abundance of archaeological material and Quaternary vertebrate fossils. The locale first attracted scientific attention in the 1860's when, during the course of strip-mining operations, basketry fragments were found which appeared to be associated with extinct faunal remains. Although there was considerable disagreement as to the validity of the association, after examination of the site several scientists of the day concluded that the remains of man and extinct animals were contemporaneous.

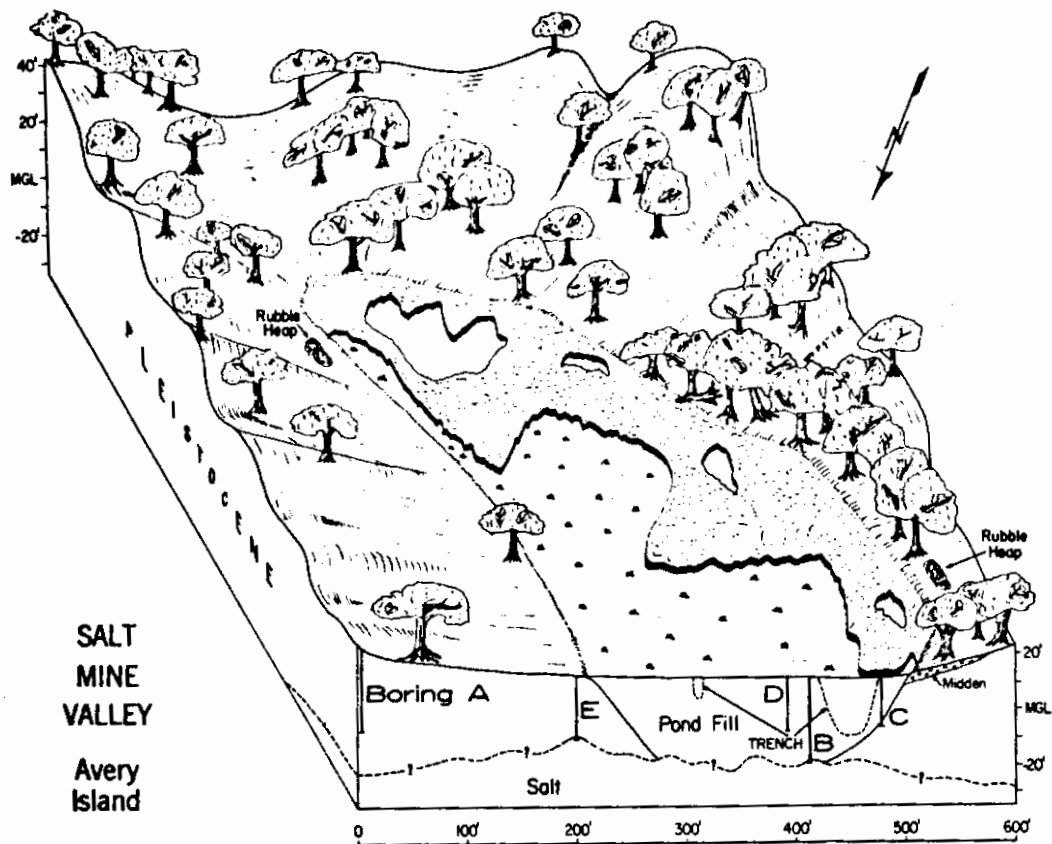


Figure 1. Relationship of fill to topography in eastern end of Salt Mine Valley.

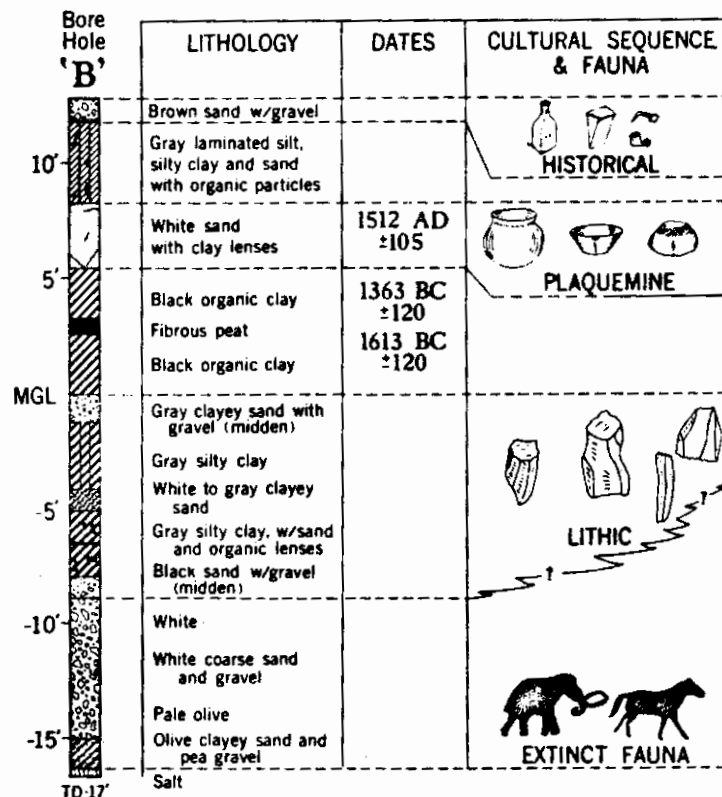


Figure 2. Stratigraphy revealed in Bore Hole "B" and excavated trench. Location shown in Figure 1.

Carto. Sect. CSI, LSU.

The irregular surface of the rock salt is overlain by 10 to 30 feet of sediment in Salt Mine Valley. The deposits filling the valley indicate a long and complex history of intermittent accumulation of organic material and stream deposits derived from adjacent hilly areas of the island. Fossils of extinct vertebrates occur primarily in a sand and gravel bed immediately above the salt and include: Megalonyx jeffersonii, Myiodon harlani, Equus complicatus, Odocoileus virginianus, Bison (species undetermined), Mammut americanum, and Elephas (species undetermined).

Recent excavations at the site disclosed an early occupation characterized by burin-like tools tentatively correlated with the extinct faunal remains. (Figure 2). An organic sequence in the section helps to measure the extent of a hiatus in human occupation at the site. A rich accumulation of Plaquemine period potsherds and a bed containing historic American artifacts were found in the upper levels of the pond fill. Midden deposits and brick and cinder rubble heaps, believed to be the remains of salt brine boiling operations, were found around the pond margins and dated as Plaquemine Period and historic American, respectively.

Artifacts from other camp and midden areas on the Island also show a long history of human occupation ranging from pre-ceramic times until the Plaquemine Period. Artifact assemblages characteristic of the Late Archaic, Poverty Point, and Plaquemine periods are apparent in large surface collections from the island. A charcoal sample from a small conical earth mound on the eastern flank of the island yielded a radiocarbon date of $2,690 \pm 260$ B.C.* The association of Archaic artifacts with similar conical earth mounds in the terracelands of Southeastern Louisiana supports this date and seems to indicate that moundbuilding was an early trait in the areas marginal to the Mississippi River Delta.

ALABAMA: Edward B. Kurjack

Three populations - an Archaic group some several thousand years old, a Late Archaic-Early Woodland component, and a historic Creek-Ocmulgee Fields Indian village - once occupied the McLendon site, according to evidence gathered in part by the University of Alabama during the summer of 1962.

Excavation was financed by the National Park Service, and John Cottier, Auburn University student, assisted in directing the University of Alabama crew. This investigation was prompted by results of 1960 excavations, made under a cooperative agreement between the University of Alabama and Florida State University.

A few crudely-chipped projectile points and tools found in the deepest levels at the site were the only evidence of the early Archaic Indians. The intermediate, Late Archaic-Early Woodland occupation was indicated by chipped and ground stone tools and associated pottery. Glass bottle fragments, typical ceramics, and other artifacts of a type traded by Europeans to Indians

* Radiocarbon samples analyzed by the Exploration Department, Humble Oil and Refining Co., Houston, Texas.

pointed to the existence of an 18th century Indian village on the site. The village probably was Sawokli, a Creek Indian town which documentary evidence places in the vicinity.

ALABAMA: David L. DeJarnette, Edward B. Kurjack and James Cambron

Four natural zones were distinguished at the Stanfield-Worley Bluff Shelter, a stratified, multi-component site in Colbert County, during an excavation financed by the Archaeological Research Association of Alabama. The earliest occupation at this site can be considered a post-fluted-point and pre-Shell-Mound Archaic manifestation.

The first layer contained Woodland and Mississippian materials, including the entire range of ceramic types known from the Tennessee Valley excavations.

The top of the second zone was dark black in color, contrasting with the sterile zones above and below it. This zone was found at a mean depth of 55 inches from the surface and was from eight to 14 inches thick. It contained numerous uniface tools, side and end scrapers, graters and spokeshaves, as well as projectile points of two major styles.

Dalton points of three types were abundant. The square-based Colbert Dalton and the Greenbrier Dalton were the most common, but the Nuckolls Dalton type was found also. The second major projectile point style was the side-notched, basally ground Big Sandy I point.

Three burials at the site, which were in a pre-ceramic level but above the lowest zone, contained projectile points similar to the Gypsum Cave variety. These points, termed Morrow Mountain, are characteristic of an early pre-ceramic phase in North Carolina. The Morrow Mountain burials also contained several bone awls and a bone atlatl hook.

ALABAMA: Edward B. Kurjack

Three burials were recovered by a University of Alabama field crew at the Abercrombie site, six miles south of Phenix City, Alabama, during the summer of 1962. The site was once an Indian mound and adjacent village area.

These burials, retrieved from one of two trenches excavated by the group, included partly flexed remains of a mature female; a decayed long-bone and several tooth caps disposed to suggest a partly flexed position; and the partly flexed remains of a child. This trench, ten feet wide and 50 feet long, was located southeast of the mound.

The second trench, 25 feet square and located north of the mound, was excavated to a depth of eight inches. Previous investigation indicated that this trench might consist of a long row of house foundations, but no complete houses were found by the University of Alabama group. There was limited evidence that the trench contained rectangular houses with shallow, central fire pits and wall posts varying from four to ten inches in diameter.

Erosion and continual plowing have reduced the size of the mound from an estimated 14 feet high by 85 feet in diameter (in 1907) to its present height of eight feet.

While a fair quantity of European-made artifacts had been recovered from this site, the University of Alabama crew found only one such item-- the iron hoe. Although European trade goods are common in burials at the site, they are almost absent in the village refuse. This may mean that such goods were scarce in the village.

Some European trade items (clay pipe fragments, glass bottle fragments, parts of firearms) are extremely rare at the site although they are common to other middle 18th century sites in the area.

Previous work at the Abercrombie site revealed two principal components: (1) a Historic Creek occupation, evidenced by European trade goods in Indian burials, by a small amount of brushed pottery and by the presence of an incised ceramic ware resembling Ocmulgee Fields Incised ware; (2) a Lamar component evidenced by the mound and by a number of Lamar Complicated Stamped pottery sherds.

The history of work at this site includes a visit by Clarence B. Moore (1907); excavation by Peter Brannon (report published 1909) a comprehensive surface survey of the Chattahoochee Valley area in Alabama through a grant from the University Research Committee by Wesley R. Hurt (1947); analysis of material collected from the surface of the site by Charles H. Fairbanks (report published 1955); extensive excavation by the Columbus Museum of Arts and Crafts, conducted by Joseph Mahan along the east side of the mound and along the continually eroding river bank west of the mound; continuing excavation of erosion-threatened areas by David Chase of the Fort Benning Infantry Museum.

ALABAMA: Oscar W. Brock, Jr.

No stratified evidence of Paleo-Indian culture was obtained during the summer of 1962 when the Archaeological Research Association of Alabama sponsored a University of Alabama student field crew investigation in North Alabama. However, valuable information regarding the chronology of projectile point types of the Tennessee Valley may be forthcoming.

Work was centered around the Mud Creek-Town Creek drainage areas in Colbert and Franklin counties.

The investigations were prompted by numerous finds reported from this area which indicated the early, hunting Paleo-Indian had roamed there.

Four sites where surface finds indicated the presence of this early complex were investigated--one in Franklin County and three in Colbert County. It was hoped that the 1962 work would reveal a stratified sequence of pre-ceramic material, possibly including Paleo-Indian artifacts. While all data were expected to be valuable, the investigation focused on the earlier pre-ceramic occupations.

The Klein site was almost entirely pre-ceramic. Large numbers of Morrow Mountain, Lecroy Bifurcated and various ground-stemmed projectile points were recovered, indicating that this site was early Archaic. A Dalton-Big Sandy complex, which predates the early Archaic stage, was present also.

Nine burials, one sitting, five flexed and three so incomplete that disposition could not be determined, were found at this site.

The second site contained few artifacts, but the inclusion of large, stemmed points, such as Benton Stemmed and other diagnostic artifacts, clearly indicated that the site was pre-ceramic, probably middle-to-late Archaic.

A strong representation of both pre-ceramic and ceramic horizons with early Archaic, Archaic and Woodland being the largest components, was found at the third site, which was unusually rich in artifacts. Sixteen Archaic burials were uncovered at this site, all in flexed or semiflexed position. Four contained associated artifacts: two yielded projectile points of unrecognizable type; one contained a Mulberry Creek point (indicating that this was a Shell Mound Archaic Burial); one contained a cache of unrecognizable points, bone tools and gastropod shell beads.

Large, crude biface knives and numerous flint flakes indicated that the fourth site may have been a flint workshop.

ALABAMA: Ross Morrell

During a three-month period in the summer of 1962, two sites, Ogletree Island and Woods Island, were explored under the Alabama Power Company-University of Alabama cooperative archaeological salvage program.

Excavations were completed in the Ogletree Island site, situated in the Coosa River opposite the mouth of Choccolocco Creek in the Logan Martin Basin. Additional extensive test excavations were accomplished on Woods Island, future site of Lock No. 3 Dam.

A preliminary study of the material from these excavations indicated that the Ogletree Island site was occupied by Indians of the early historic period, probably around 1540, the time of De Soto's expedition through the Southeast. The sites on Woods Island were occupied by Indians of the middle historic period, around 1675 to 1750.

Preliminary excavations at Ogletree Island during the summer of 1961 revealed a somewhat eroded, early historic, village site, and exposed the floor area, central fire basin and adjacent refuse areas of an aboriginal dwelling.

The most important of the artifacts removed from this house area was a European glass trade bead known to date from the first half of the 16th century. This bead, identified by Dr. John Goggin of the University of Florida as a Spanish Nevao Cadiz bead dating not later than 1560 A.D., possibly represents the only artifact thus far excavated in Alabama that could have been left by the De Soto expedition in 1540.

During the 1962 excavations at the Ogeltree Island site, removal of the house floor exposed a second floor containing cultural material contemporary with that of the first floor. This indicated that the first structure had burned and the second was rebuilt on the same location. An adjacent area, 20 feet by 20 feet, was excavated and a third house found.

A surface survey was undertaken when it was learned that work on the lock 3 dam had begun on Woods Island. Here three sites of aboriginal occupation were located, the largest of which appeared to be the remains of a rather extensive historic village. The first excavation at this site revealed the remains of a burned, rectangular structure, whose roof beams had collapsed over the floor area and crushed several ceramic vessels. The predominant pottery type was of the McKee Island series; an Etowah component was present as a minority.

A second test area (35 feet by 50 feet) revealed scattered post molds, refuse areas and nine burials with associated artifacts. An adjacent house area was excavated and remains of a burned structure with a large refuse heap against one wall were found.

Note: All papers relating to Alabama were originally published in the "University of Alabama Extension News Bulletin", Vol. 20, No. 7, January, 1963.

POST-PLEISTOCENE OCCUPATIONS OF SOUTHEASTERN LOUISIANA TERRACE LANDS

by

Sherwood M. Gagliano

At the last meeting of the conference in Macon, I presented a brief progress report on a survey of pre-pottery sites in portions of South Louisiana and South Mississippi. In view of the topic of this meeting, Dr. Williams suggested that it might be appropriate to present the same material in a somewhat broader framework.

I am happy to report that since last year's meeting over 3,000 projectile points and an equal number of other artifacts have been classified from the sites, and, in spite of this new quantitative data, I can still live with the rough chronological framework proposed a year ago.

I would like to emphasize that this data is the result of a site survey and salvage program with excavation limited to a few test trenches. A number of key sites have been earmarked for excavation as funds and time become available.

As the name implies, the topography of the area is dominated by a series of four Pleistocene terraces along with a prism of overlapping Recent Alluvium. The area can be further subdivided into an Upland segment of rolling pine clad hills, reflecting the antiquity of the three older terraces, a flat Prairie terrace segment, and an area of Recent deltaic and marginal deltaic deposits along the coast. Elevations in the Upland segment range from about one hundred to three hundred feet. Relief in the western end of the Uplands, called the Tunica hills, is exceptionally sharp because of active uplift and proximity to the Mississippi Alluvial Valley,

The youngest Pleistocene terrace, the Prairie, occupying a considerable strip of the Uplands parallel to the coast forms a second district. This surface, sloping gently to the south, is covered with fossil stream patterns, dunes, and beach ridges, reflecting a complex depositional and post-depositional history. Although the modern vegetation is a woodland of pine-magnolia-beech, when first visited by Europeans, much of this surface was a natural grassy prairie with trees restricted to streams and ponds. Fluvial equivalents of the Prairie terrace extending up all major streams draining the area contrast sharply with the rolling, indurated, and dissected Pre-Prairie surfaces.

The area is bounded on the west by the lowlands of the Alluvial Valley of the Mississippi River. South of the Prairie Terrace lies the Lake Pontchartrain Basin. The Recent history of this marginal deltaic lowland is quite complex. As sea level approached and reached its present stand, from 3,000 to 4,000 years ago, the basin was dominated by a westward extension of Mississippi Sound complete with offshore islands. These can be traced in the subsurface to the vicinity of New Orleans. Subsequently the area played host to a succession of not less

than three Mississippi River subdeltas which built through deposition the natural levee ridges and marshlands of Southeastern Louisiana.

Major streams draining the terracelands from west to east are the Homochito, Amite, Tangipahoa, and Pearl Rivers. The Homochito is tributary to the Mississippi River, while the Amite, Tangipahoa, and Pearl find their way to the Gulf through the Pontchartrain Basin.

The major streams are confined to valleys excavated as a result of lower sea level during the Wisconsin glaciation. The valleys were almost entirely filled with alluvium during the Post-Pleistocene rise of the sea, and remain as lowlands with characteristic mixed hardwood flora and bottomland fauna.

Geological evidence suggests that the Post- Wisconsin rise of sea level was interrupted by a number of pauses or recessions resulting from halts in retreat and minor readvances of the melting continental glaciers. These pauses coupled with possible climatic adjustments have left distinctive scars on the landscape. Among the more prominent of these features is a fluvial terrace complex developed along the major streams draining the region, notably the Amite and Pearl Rivers. This terrace complex is considered equivalent to the Deweyville of southeastern Texas.

The Deweyville surface, wherever mapped, is characterized by meander scars with radii much larger than those of the present streams. Deposits of this terrace sequence are markedly coarser than adjacent Pleistocene or active floodplain material in the lower segments of the streams and are quarried extensively along several streams for sand and gravel. Both morphology and composition suggest a somewhat different climate during the origin of these deposits.

Pleistocene Fauna and Natchez Pelvis Find

Poorly preserved remains of extinct Pleistocene vertebrate fauna such as horse, sloth, peccary, mastodon, mammoth and tapir are found occasionally during construction and excavation throughout the Prairie terrace area. Most of this faunal material comes from low fluvial terraces believed to be related to the Deweyville. Wood from two of these locales yielded dates of 12,000 and 6,000 B. P. These dates comply with the extinction dates of the Pleistocene Mega fauna in North America of 6,000 to 8,000 years ago.

By far, the best fossil locales are along streams in the Tunica Hills area where active uplift is causing rapid dissection of fluvial terrace deposits providing excellent exposures. It was in this area that the Natchez Pelvis Find was made in 1846. A fragment of human pelvis was found along with extinct faunal remains at the base of a terrace above a blue clay on St. Catherine's Creek near Natchez, Mississippi. Recent fluorine analysis has confirmed that man and the extinct animals were contemporaneous. In 1956 Quimby reexamined the documents and the area and concluded that the locus of the find has been lost to erosion. Much of the fossil material from other Tunica Hills locales occurs in

geological context identical to that described at the site of the Natchez find. Two wood samples have been dated from one such locale on Tunica Bayou, yielding dates of 12,500 and 11,500 years B.P. Fauna and stratigraphy strongly suggest that the Natchez Pelvis find is of approximately this vintage.

Lithic-Early Archaic

Typologically, the oldest recognizable artifacts are a few fluted points. To date these have been rare, scattered finds. The points thus far seen have been of excellent workmanship and manufactured from non-local chert.

An other point considered to be an early marker in the area has a wide square stem, is usually straight sided, and has diagnostic coarse serrations. These points have all the features of the Kirk Point, described by Joffre Coe from North Carolina. They are widespread in occurrence, invariably of local gravel, and usually found in sites whose locations suggest considerable antiquity.

Points belonging to the San Patrice family form another series that appears to be typologically old. These are small, stubby, triangular points, characteristically side-notched, basally thinned or fluted, and basally ground. They are likewise widespread and manufactured from local gravel.

A good example of a transitional or early Archaic site is the Palmer or Jones Creek site. The site is located along a small stream on the Prairie Terrace surface near Baton Rouge. Kirk points, heavy, spade-shaped points, and unifacial scrapers are found in the distinctive assemblage from the site. Now engulfed by a subdivision, the site formerly consisted of surface lag in cultivated fields.

Jones Creek, along which the site lies, was recently straightened and dredged to improve local drainage. Bones of mastodon and horse along with projectile points were found mixed in the soil in the immediate vicinity of the site but, unfortunately, no in situ material has been found.

However, log material associated with mastodon bones exposed in the Jones Creek drainage canal several miles southeast of the site yielded a radiocarbon date of 6,340 \pm 200 years before present. Thus we have a very shaky suggestion of association of artifacts and 6,300 year old extinct faunal remains.

The Archaic Stage

Undoubtedly the bulk of the preceramic material studied falls into the Archaic Stage. In this paper the Archaic Stage is considered in the broad sense, that is, a rather simple material culture lacking pottery and reflecting an economy based on gathering and the hunting of small game. In time the stage appears to extend from the extinction of the Pleistocene mega-fauna to the introduction of ceramics. Certainly, a hunting and gathering economy persisted in much of the area until historical times, but by our definition the Tchefuncte Period will be considered as the end of the Archaic Stage.

Although the investigation is far from complete, several distinctive Archaic trait complexes and artifact assemblages are now apparent. A number of sites exhibit trait complexes which are so similar that they have been grouped and given the tentative status of a phase. Four distinctive preceramic phases have been identified.

The first of these, the Amite River Phase, is represented by a widespread occupation of Upland stream valleys. Sites are midden and camp areas strewn with scrap chert gravel and chippin debris, and are usually associated with gravel quarries. Small conical earth mounds occurring singularly or in groups of two or three appear to be related to this development. Known artifacts are almost exclusively of chipped local gravel. Characteristic projectile points are Almagre, Macons, Kents, Wells, and Shulma. Other artifacts in the assemblage include choppers, celts, drills, adzes, and pointed hammerstones. These pointed hammerstones are exceptionally well suited for working the chert gravel, and may be a local development.

The Pearl River Phase sites consist of a group of oyster shell middens associated with early shorelines and estuaries in the vicinity of the mouth of Pearl River. This complex is believed to represent the first coastal occupation after sea level reached its present stand. Gravel and sandstone from nearby Pleistocene deposits served as the major raw materials for artifacts, and along with amorphous baked clay hearth fragments, are found scattered throughout the middens. In addition to chipped gravel and ground sandstone, shell and bone artifacts are also numerous in the assemblage. Several varieties of atlatl weights, sandstone saws, milling stones, and bone tools are particularly characteristic.

A number of sites uncovered by dragline operations in the Deltaic Plain can be grouped into the Bayou Jasmine Phase. The sites are *Rangia* shell and earth middens on natural levees of Mississippi River distributaries. The major distinguishing feature is an abundance of baked clay Poverty Point objects. Although pottery is virtually absent, a few fiber-tempered sherds have been found. Radio-carbon dating of charcoal from a site belonging to this phase ranged from 3,430 to 3,980 years before present. These dates are considerably older than the dates from the Poverty Point and Jaketown sites.

In addition to the baked clay objects of the Bayou Jasmine Phase, one site on the eastern end of Lake Pontchartrain exhibits a number of Poverty Point traits. The site consists essentially of a beach deposit of *Rangia* shells and midden debris left in the wake of rapid shoreline retreat. The bulk of the midden now lies in about 4 feet of water 500 to 1,000 feet from shore. Although sherds representing several periods have been collected from the beach, most of the pottery is of Tchefuncte age. In addition to the pottery, there is a wide variety of material which appears to represent a strong Poverty Point component. Microflints, and polished stone artifacts such as plummets, boatstones, and celts are outstanding in the assemblage. It is particularly significant that a high percent of the stone is completely foreign to the area. Quartz crystals, novaculite, metamorphic rocks, magnetite, and hematite are abundant and seem to indicate well established

trade routes. Pontchartrain, Kent, Macon, and Gary are the most frequent projectile point types. It might be worth noting that Meserves occur as a minor type at the site. Meserve-like points have also been illustrated from Elliot's Point complex sites in northwest Florida by Fairbanks and Lazarus. The Elliot's Point material features clay balls and a few other Poverty Point traits.

Projectile point frequencies from the Garcia site compare favorably with those from Poverty Point. However, the related Motley and Delhi points and the characteristic slate-gray chert of which they are often fashioned are absent. Cut jasper beads and ornaments along with soapstone vessels are also conspicuously absent.

A preliminary chronological framework can be given for the area. There appear to be three broad pre-ceramic aspects or traditions related to physiographic areas. It will be noted that the ceramic periods embrace all three areas, but are rather poorly represented in the Uplands until Coles Creek and Plaquemine times. Sites exhibiting similarities to Poverty Point are best developed in the Alluvial Valley and Deltaic Plain. Pearl River Phase sites have only been found in coastal areas marginal to the Deltaic Plain. The Knox site is a *Rangia* shell midden on the Mississippi River valley margin near Baton Rouge, believed to be associated with an embayed stage of the Lower Alluvial Valley. No artifacts have been recovered from the site.

Dated faunal material can be used for comparison, approximating the end of Deweyville Terrace deposition as well as the extinction of the Pleistocene Mega Fauna. This is not meant to imply a catastrophic extinction, but is believed to have climatic implications.

It should be emphasized that this is a preliminary chronology. The sequence for the Uplands is particularly tentative. Age estimates in this column are based on artifact typology, physiographic relationships, and faunal associations.

Next we will consider in detail several key areas. The area on the north shore of Lake Pontchartrain covers the contact between the Prairie Terrace and the Recent overlapping alluvium.

Following this we will discuss the Pearl River Mouth area, and finally, the area on the Middle Amite River typifying site-terrace relationships on Upland streams.

Proceeding from south to north we find the Recent Marsh in contact with the pine-clad Prairie terrace. More or less parallel to the contact are a series of relict beach ridges marking former shorelines of Lake Pontchartrain. The intersection of the Bayous and buried beaches mark the positions of former bayou mouths. At each of these former mouths is a shell midden. The beaches can be traced to the west to Bayou Lacombe where the same situation exists. The initial occupation of the youngest beach ridge, which is very near the present shore of the Lake,

is Troyville. The next shoreline position to the north is marked by several shell middens which were initially occupied during Marksville times. Still further north is a well defined beach supporting both Tchefuncte and Pearl River Phase sites. Two of the Tchefuncte type sites excavated by the Ford and Quimby group in the forties are on this same beach approximately 10 miles west of these sites.

All of the middens are Rangia shell sites. However, the composition of the "red" Pearl River Phase site is oyster shell, indicating a salinity change during the early development of the area.

Looking at this (the Bayou Liberty Tchefuncte site) from south to north, there is first the present shore of the lake, followed by a Troyville-Coles Creek midden on a stranded beach ridge, and east, the Recent Marsh-Prairie Terrace contact.

Finally, we consider the Pearl River Phase site which occupies the tree-clad point of land on the near side of the old stream and is characterized by a notable response of the marsh vegetation to the buried beach ridge.

The area in the vicinity of the mouth of Pearl River offers a wide variety of ecological conditions. River bottom swamplands, pine hills, coastal beaches, brackish and salt marshes all meet at this point along the coastlines. Each of these environments supports a characteristic fauna and flora and each offers a unique situation for hunting and gathering. The river itself is a natural avenue of travel giving access to Upland products and raw materials. In view of these many attractions, it is not surprising that this area has a long history of occupation.

Due to the large number of sites the ceramic history is well known. Ceramic material ranging in age from Plaquemine to Tchefuncte is represented. There are good correlations between site occupations and geomorphic development. For example, the Tchefuncte period is the earliest occupation found on the beach ridge complex at the mouth of the river. This suggests development prior to, or during the Tchefuncte times. The three sites representing the northernmost Rangia shell middens on Pearl River, probably approximate the maximum extent of brackish water encroachment during their occupation.

In contrast to the many Rangia shell sites, Cedarland Plantation and the Graveyard site are composed almost entirely of oyster shells. These two Pearl River Phase sites are believed to have been inhabited when the mouth of the Pearl was more estuarine and local salinities somewhat higher than during Tchefuncte and subsequent times. The Prairie Terrace marking the western margin of the stream valley has been downfaulted and the Graveyard site, once on the valley margin, is now partially below sea level.

The Garcia site, as mentioned previously, contains Poverty Point elements and is believed to be related to an early Mississippi River Delta development.

The McKeen site is unlike any other in the immediate vicinity. The site is a camp located on a knoll overlooking the valley scarp. Only chipped artifacts have been found. The assemblage is similar to the early Archaic Upland material and includes a Kirk point. The site is believed to be contemporaneous with the development of a series of large Deweyville scars. Immediately north of this area the scars emerge from beneath a wedge of alluvium to form part of the Deweyville Terrace complex.

By studying the archaeological content and location of sites in the Pearl River mouth area it is possible to reconstruct a significant part of the Recent geological history and ecological succession. The following sequence of events is suggested:

McKeen site occupation	Deweyville streams were active and climatic conditions somewhat different. Sea level was rising, but still below its present stand. The coast was several miles downstream from the site
Pearl River occupation	The mouth of Pearl River had reached its present position, but was embayed and drowned as a result of rising sea level. Sea level reached its present stand.
Poverty Point occupation	Mississippi River distributaries approached the area from the west.
Tchefuncte Period occupation	Filling of the lower estuary by the Pearl. Development of accretion beaches near the mouth of the Pearl.
Post-Tchefuncte occupation	Continued development of accretion beaches and coastal marshes.

The Middle Amite River area is considered to be a third key area. The regional contact between Prairie Terrace and older Pleistocene deposits, strikes approximately northwest-south-east. This contact is marked by an abrupt break in topography, soils, lithology, vegetation, drainage pattern, and regional slope.

A tongue of riverwise Prairie terrace extends up the Amite River defining a Prairie Period valley. Because of the coarse nature of adjacent Pre-Prairie Pleistocene deposits, the riverwise Prairie terrace is highly graveliferous. A lower terrace level believed to be Deweyville in age also occurs along the stream. The surfaces of the

Prairie Terrace and the Deweyville slopes merge to the north. Like the Prairie, the Deweyville deposits are coarse and presently supply much of the sand and gravel needs of Baton Rouge and adjacent communities. Gravel is most abundant immediately downstream of tributaries and in places where Deweyville streams had cut into older gravel concentrations.

Extensive site areas are found on the Prairie Terrace along the scarp separating Prairie and Deweyville surfaces. The largest site complexes are on the Prairie surface at junctions of tributary streams and the river valley. All sites are associated with gravel quarries and are primarily quarry sites. The occupants simply selected spots where streams were actively eroding and redepositing, thus mining, terrace gravels. The major sites seem to have a long history of occupation, but the bulk of the material can best be characterized as Amite River Phase. The Bluff Creek, Doyle, and Baywood sites are type sites of the Amite River Phase.

Sites have been found with Amite River Phase projectile point assemblages on the Prairie surface considerably removed from any gravel source. The predominant artifacts on these sites are projectile points, with a marked absence of tools. This may be evidence of an annual round from quarry sites to hunting camps.

A number of small conical mounds occur in the area and are apparently associated with the quarry sites. The mounds, from 50 to 75 feet in diameter and from 3 to 11 feet in height, occur singly or in groups of two or three. Frank Soday reports a hematite birdstone from one of these mounds, but no other artifacts are known to have been found in the mounds.

The sites in this area apparently served as village and workshop areas as well as spots where gravel was available. However, the occurrence of an easily obtainable supply of gravel was undoubtedly of primary consideration in their location.

The Baywood site is on the Prairie surface overlooking the Deweyville-Recent stream valley. Several artifacts were found buried in Deweyville deposits at Williams Gravel pit.

In summary, we will consider the overall distribution of sites in the area under consideration and in adjacent areas. Most pre-ceramic sites have been found in the terrace lands and stable areas. There is evidence for occupation in these areas for at least the last 12,000 years. The oldest materials consist of isolated finds of artifacts buried in terrace deposits such as the Natchez Pelvis Find and fluted point finds.

There are several excellent marker points and diagnostic artifact assemblages in an apparently widespread occupation during the Transitional and Early Archaic interval. These early occupations seem to be contemporaneous with Deweyville Terrace deposition. Both artifact finds within the terrace gravels and locations of sites support

this hypothesis. The Amite River Phase also appears to be in part correlative with Late Deweyville.

Upland sites can be classified as middens, quarries, mounds, and hunting camps. Quarry sites, such as the Amite River Phase sites, are found primarily along streams in the Uplands where terrace gravel is abundant and exposed by the streams. The abundance of refuse and occurrence of mounds suggests at least a semi-permanent or seasonal occupation.

Another sequence of pre-ceramic sites has been found associated with beaches formed shortly after sea level reached its present stand and are located in areas marginal to the Deltaic Plain. This correlation has been best established for Pearl River Phase sites in the vicinity of the Pearl River mouth, but a similar relationship appears to exist between undifferentiated Archaic sites and cheniers west of the Deltaic Plain.

Pre-ceramic sites, a number of which exhibit some Poverty Point characteristics, are found on several of the earliest recognizable Mississippi River distributaries. The correlation is well established for occupation of the Bayou Jasmine Phase sites and deposition of the Cocodrie subdelta system. A few sites are also known on an early system on the north shore of Lake Pontchartrain. The sequence for the development of these old deltaic masses is based primarily on geological evidence.

THE EARLY OCCUPATIONS OF NORTHWESTERN FLORIDA

by

Charles H. Fairbanks

The area to be considered here is that part of the northwestern Florida landmass which lies west of the Aucilla River and east of Pensacola. This may well be a distinctive aboriginal culture area but is actually delimited here simply because it is the area with which I am familiar and in which I think I can see some trends and traditions.

The area is all geologically recent, dating from the late Pleistocene for the most part. The underlying limestones are the Suwannee of Upper Oligocene and the Tampa of Lower Miocene. Adjacent to these are the Tallahassee Red Hills which form a distinctive physiographic area. The higher limestone beds in the vicinity of Marianna form the largest not completely submerged cave sequence in Florida. The area is in general overlain by Late Pleistocene and recent sands. These sands have been largely derived from the southern end of the Appalachian mountain system and are generally coarse quartzite sands with often considerable amounts of mica. Off the mouths of the Appalachicola, New and Ocklockonnee Rivers the amount of these sands has been enough to furnish materials for offshore reefs and Islands. Along the entire coastal area the Gulf of Mexico is shallow, especially in the Apalachee Bay area.

The biota is rich and varied, especially in the many equitones where biota of the two provinces are in touch with each other. The shallow bays teem with fish and shell fish, especially oysters. The land was formerly dominated by large numbers of deer and turkey as the largest commonly exploited game. Smaller game, especially migratory wildfowl and upland birds were formerly common. The country tends to have sandy uplands adjacent to either extensive hardwood swamps or to intermittent lakes. In periods of short or extended drought these lower areas become refuge areas for large numbers of animals and birds. A good deal of the remains of the early occupations are found in these sandy knolls adjacent to either lake or swamp. In fact almost every such location so far investigated shows some evidence of early occupation. So far none of them have indicated any deep stratigraphic situations. Neither have the caves in the Marianna region yielded evidence of early man in place. We keep hoping, however, that if we keep looking at enough of both kinds of places we will eventually find a clear cut Early Man situation.

The probably earliest remains are the Suwannee Point first described by Goggin (1949:13-21). These points resemble the Plainview Points and the Midland Points of the High Plains (Wormington, 1957:262-265). Bullen has recently called to our attention that fluted Suwannee points occur sporadically in the Central Florida Highlands (1962:83-88). Most of the points of the Suwannee style that I have

seen from northwestern Florida are of the unfluted but basally ground sort. These come mainly from river beds in this region, although Lazarus has reported sporadic instances from the Choctawhatchee Bay area (Lazarus, William C., Personal Communication). These are a more slender point than the standard Suwannee Point. The isolated occurrence of these points strongly suggests an occupation extending back to the Late Pleistocene. The fact that many of them are found on river beds where bones of mammoth, Pleistocene Bison and other extinct forms also occur, leads to the hope that we may eventually find some in place with the bones of extinct mammals. In size and proportion they seem to be closer to the Clovis range than to the Folsom range. About the only thing that can be said about their distribution is that the lands or rivers where they have been found were already emerged from the Gulf by the end of the Pleistocene.

The next in probable age that is known to occur is a series of Dalton Points, one with extreme basal grinding found in disturbed shell from a midden just north of Four-Mile Village, Walton County. At Four-Mile Village a very high series of dunes forms a promontory in the gently curving Gulf beach. On the top of the highest a blowout revealed small chips of flint, some long lanceolate stemmed points, a very slender Suwannee Point, and clay balls of the Elliot's Point Complex. The shell midden about a mile north also showed a few clay balls. It was from this shell midden that the Dalton Point was derived. The Elliot's Point Complex is known to underlie the fiber-tempered horizon (Lazarus, 1958:20-32). If the complex is in truth also associated with Dalton Points, then it may be of considerable age. The only point in the Elliot's Point camp is on the high dune at Four-Mile Village; it occurs to me that they may have used this seventy-foot high dune as a lookout for turtle-crawls along the beach. If this is a correct interpretation, it adds a new dimension to the subsistence economies of earlier man in Florida.

Opposite beveled points similar in many respects to Big Sandy Points also occur in some number throughout Panhandle Florida.

The best known and most widespread preceramic assemblage known from the Northwest Florida region has earlier been called the Wacissa Complex by Allen in an unpublished Master's thesis. We now know that this Wacissa Complex is much more widely distributed than Allen thought and we can be much more specific about the topographical distribution of the complex. The sites yielding these forms seem to be widely distributed in at least Leon, Jefferson, Taylor and Wakulla Counties, roughly the area from the Ocklockonnee to Aucilla Rivers. I suspect that it is more widely distributed but we do not have more widely reported sites. It seems to extend from within sight of coastal marshes to somewhat north of the Georgia line.

The complex consists of rather distinctive stemmed projectile points, several types of scrapers, drills and massive crude flake tools. These latter seem to be clearly heavy woodworking tools. The complex occurs in two sorts of situation, as far as I have been able to determine at present. Both seem to involve some sort of equitone, that is, they are in situations where the Indians could easily exploit two environments.

The first situation, that was described by Allen, was on small sandy rises adjacent to swamps in Jefferson County. There Allen found some 31 sites, all in about the same situation. At least one of the sites covered between 3 and 4 acres. One road between Natural Bridge and Wacissa is literally lined with these sites. All of them seem to be camp sites, although some occur near limestone outcrops where seams of flint are available. These sites lie in a wide swamp stretching about five miles west from the Aucilla River and from the coast inland for a distance of about 16 miles.

Allen found that the characteristic tools of the Wacissa complex were contained in a leached greyish or white band below the present sandy humus. Most of the tools and flakes occurred above the brown saturated sand hardpan. At present this white sand has not been geologically dated, except insofar as it is regarded as being Post-Pleistocene.

The second situation is a series of high sand ridges in northern Leon County. The sand ridges overlook large lakes or dense swamps. These lakes--Jackson, Iamonia, Foshallee, and Miccosukee--alternate between open water lakes and lush savannahs. Foshallee has been dry enough in recent years to begin forest growth. The shallow lakes teem with migratory waterfowl and the adjacent forests with deer and turkey. This area is today largely given over to hunting preserves and has always been known for abundant game. The non-ceramic sites seem to have been later and to have been re-occupied by homesteads during the Ft. Walton Period. In at least one case, limestone with a flint band outcrops on the site. No complete survey has yet been made of the number and location of the sites.

In both these areas the same selection of high, sandy localities adjacent to swamps were picked by the early Indians. Here swamp and upland biotas were readily available. I suspect that deer, bear, and turkey were the principal game sources. So far no deeply stratified sites are known. They do, however, present a patterned ecological distribution worthy of greater study.

In all these sites the complex is seemingly the same, the Wacissa Complex as it was first named by Allen. Allen described fifteen types of large, percussion chipped projectile points, 3 knife types, 2 drill types, seven scraper, and 10 "large" tool types. His projectile points include the Suwannee points found on three sites. He named one point "Jefferson Stemmed" that is somewhat similar to what Bullen later called Alachua Point. The Jefferson Point is long, narrow, somewhat asymmetric, with straight stem and thinned, straight base.

In general the points are large, asymmetric, narrow, with varying stems, usually thinned. Only one is a broad triangular blade with a long, tapering stem. In general they resemble points described by Bullen and Dolan from the Johnson's Lake and Bollen's Bluff sites in central Florida. Only the broad points seem to differ. They have general or detailed resemblances to Archaic points throughout the east (Eva, Stallings, etc.). The Big Sandy type is very rarely present. Knives are oval, trianguloid or bi-pointed. Drills are either simple

linear forms or reworked projectile points.

Scrapers range from small to large. Some are reworked from bases of projectile points. The majority are uniface, however, with either shallow or steep retouch. Side, disc, rectanguloid, and end scrapers are present.

The large tools may be very large, reaching 14" in rare cases. Many are ovate bifaces and might be considered blanks except that their edges show use chipping. Many are unifaces of very large size, 6 to 12 inches, and most of them strongly suggest heavy woodworking tools. The only alternative speculation as to their use is that they might have been grubbing tools. They never show hoe-polish, however. If they are indeed woodworking adzes or gouges they suggest that their users hunted waterfowl from dugout canoes. While I do not want to suggest that the Wacissa Complex represents a "fully developed forest economy" they do indicate a highly varied technology. It may be that these large unifaces will eventually give us more information for reconstructing the culture than will the projectile points.

THE ARCHAIC SEQUENCE IN THE OCMULGEE BOTTOMS

by

J. Earl Ingmanson

The returns from the dig at Ocmulgee National Monument are not all in yet, but we have analyzed and processed enough material to be very encouraged at present. The "Big Dig", of course, was held in the bottom lands at Ocmulgee National Monument in Macon, Georgia. For those of you who haven't been out there, the monument features a series of large temple mounds that are on a terrace above the Ocmulgee River. Now this bottom land is the site of a soon-to-be-constructed superhighway, and because of the imminent construction, a large project was organized to salvage the material that we strongly suspected would be there. The project involved field work supervised by Jackson Moore, who was assisted by Jack Walker and Fred Bohannon, who are here, and Charles Voll, who's now out in Arizona. The period of excavation started just about a year ago, with the peak of excavation being reached about the middle of January. Work continued on until the end of June.

The bottom lands produced quite a bit of material, but we are particularly concerned here with the Archaic horizons, which should have shown up there. For a long time people have been aware of the Archaic material at Ocmulgee National Monument, and we were very happy to confirm their impressions. We were very fortunate, on this dig, in that we were assigned the services of one of the U. S. Geological Survey geologists in Atlanta -- Mr. Ollie Cosner. He spent considerable time with us, and his services enabled us to find some of the natural stratigraphy involved there.

The bottom lands are composed of series of sands and sandy layers, which vary slightly from one another in their secondary characteristics. They are all sandy and sometimes just about impossible to tell apart. As the dig progressed, however, we became more and more aware of certain differences, which were defined on the basis of the geologic interpretation of Mr. Cosner. Fortunately, our cultural material followed his geologic breakdown. The lowest bed -- the lowest culture-bearing bed there -- we call the "lower sandy."

The projectile points from the lowest horizon we have in the bottom land were not fluted or typical of early man in any way. The typical type that we found there displayed the side notching, often with serrated edge, and quite often with beveled edges of the typical "spinner-type" projectile points. In addition, we have a number of bifaced blades and very little else.

A subsequent level was characterized by the secondary addition of clay, and we called it the Mottled Sandy Silty Clay. This point showed up there and perhaps such a Dalton-like point is a little out of place there, but this one came from the pit where the stratigraphy

was, unfortunately, rather debatable. More typical were some of these side-and corner-notched points. Stemmed points made their appearance here -- and indeed, most of the points were stemmed points. There were a few points here which probably come from an upper horizon.

This Mottled Sandy Silty Clay was covered in some places by a hard, brown sand, which contained a different type of projectile point. The Hard Brown Sand was not recognized initially in certain parts of the area, but in our future analysis of the material, I do feel that we will be able to locate all the cultural material in its proper stratigraphic horizon there. These points are typical of the Hard Brown Sand. You'll notice there we have quite a number of quartz points. We also have this rounded base, which comes in here, and we believe that this rounded, Morrow Mountain-type base is quite typical of the Hard Brown Sand. In many cases the use of quartz and the use of a rounded stem was combined in the same projectile point. Both of these traits reach a peak of popularity simultaneously in this particular stratigraphic level in the Ocmulgee Bottoms.

The next bed which we identified in our stratigraphic sequence we named Intermediate Sand. This bed contained such triangular, stemmed points and typical Savannah River points as are illustrated here. Some of the stemmed points are relatively small, square-based types. The Intermediate Sand contains our upper-most pre-ceramic horizon. It is not completely pre-ceramic -- probably the lower half is pre-ceramic and the upper half contains pottery. The fiber-tempered pottery (which is the bottom-most pottery we have at the site) occurs primarily in the upper half. In addition we have quite a few fragments of steatite bowls. These steatite bowls tend to occur in the horizons or levels above the fiber-tempered pottery, and very definitely above the pre-ceramic horizons.

I'd like to point out here that the pre-ceramic sequence which we uncovered at Ocmulgee Bottoms was primarily an Archaic sequence. We did not find Early Man or evidence of him.

There are several other things which we did not find that are worth mentioning. First: the sands down in the flood plains were subject to considerable leaching, and I am quite sure that this would account for the absence of bone. Another thing we did not find in the bottom lands was shell deposits. We found no shell deposits down there, although we did find some shell in the upper levels, perhaps associated with a pre-Creek Indian horizon.

In summary, we had four Archaic horizons in the bottoms: the lowest horizon consisted almost completely of side-notched points; the horizon above this included the first appearance of relatively long, stemmed points; the third horizon contained in addition to the long, stemmed points a rounded-stemmed Morrow Mountain type point and greatly increased use of quartz; then followed a period of Savannah River type points and relatively short, triangular, stubby-stemmed points.

PRELIMINARY REPORT ON EXCAVATIONS IN RUSSELL CAVE NATIONAL MONUMENT

by

John W. Griffin

This is strictly a preliminary report; the excavations are still going on, and will be for about another week. Consequently, the analysis of material has not really begun.

Russell Cave is another joint project, and Earl Ingmanson has been in the field on the whole job. Zorro Bradley is our third author for the report. Once again we were extremely fortunate in having excellent cooperation from the U. S. Geological Survey. John T. Hack re-entered the archaeological scene after an absence of years by participating in the work.

Russell Cave is in extreme northeast Alabama. Previous excavations at the site include three seasons by Smithsonian Institution -- National Geographic field parties under Carl Miller, and before that there was work by people from Chattanooga which Bettye Broyles pulled together and published. The purpose of our excavation is to provide an exhibit-in-place so that the site can be interpreted as a National Monument.

Russell Cave has two mouths. It is really a broken-down sinkhole with an intermittent stream and spring water flowing into one mouth. The archaeological site is in the other mouth.

Before the Park Service took over the area, after the Geographic had left it, vandals did a pretty good job on Miller's trench. In order to have a face to be shown to the public, we had to make a new dig. Our present excavation is a fifteen-by-twenty-five foot area located at the end of Miller's old excavation.

We dug an initial trench in six-inch levels; then we defined stratigraphic layers and continued to dig by the layers we had defined. We lettered them from A to G -- great ingenuity, I think. One point is that in Russell Cave absolute depth means nothing, so that you have to carefully control your work to know what you're doing.

We found pits and rodent activity -- someone complained about these Indians who dug pits and didn't throw anything in them, and I can agree with him on that -- they do rather foul up the situation. Another point is that if you go into that cave without lights, you can't see the stratigraphy. Good electrical lighting is absolutely necessary to pick up any of the disturbances in the stratigraphy.

We screened everything. We started off with regular hand screening, but lower down, when it got wetter, this wouldn't work. So we installed a hydraulic system. We put a shallow well pump down the hill drawing

water out of the spring. So we got everything that wouldn't go through a small screen.

In addition to the artifacts themselves, there is a great deal of well-preserved faunal material in Russell Cave. I think one contribution of the final report will be a good analysis of the faunal material. To date, we have seventy-four carbon-14 samples from which to select our samples for dating.

Briefly reconstructed, the physical history of the cave is something like this. At some time in the past the water flowed into and through both entrances. Then a massive rockfall occurred. Stream water continued to wash through the rocks, and sand is found at about 23 feet below the surface. Man moved in atop the rockfall. Occasional chips, charcoal and artifacts trickled down into crevices in the rockfall, but the basic fill between the rocks is simply limestone disintegrated in place. In situ human occupancy is therefore confined to the area above the rockfall.

Cultural deposits began to build above the rockfall as the result of seasonal occupation -- definition of the season of use is one of the problems being analyzed. The lower two layers, G and F, do contain definite hearths, but the mass of the deposit in these layers appears to be waterlain. Above Layer F the deposits are of a different nature, but given the length of time involved, a very thin annual deposition would account for all of the deposit without recourse to postulating deliberate introduction of soil by the inhabitants.

We can briefly state the generalized point sequence in the lower levels, using a few key names for projectile points. But these names are used in quotes to indicate similarity which has not yet been completely analysed.

We begin with Dalton-like, but we didn't get as much of it as Dave has in Stanfield-Worley. Then we move up into a series of material which are side-notched and serrated "Kirk" and other points fitting in with the lower phase of the Eva site. And on top of this we have "Morrow Mountain."

So in essence we have the general sort of sequence which seems to be appearing increasingly throughout the Southeast -- the thing which began with Joffre's work in North Carolina, and which is reflected in the material from the Ocmulgee Bottoms which Earl just described, in Dave's work at Stanfield-Worley, and in the Russell Cave material.

Moving above this line we have a different type of deposit. The points are still Archaic in Layer E. In Layer D there is Long Branch fabric-impressed pottery. We have no record of fiber-tempered pottery. This fits in with what Bettye Broyles reported from the top part of the site. There are two sand-tempered sherds in her report, I believe.

We are not concerned at this session with what's up above, but our

layers D, C, and A are ceramic, and we will be able, I am certain, to segregate out some of this limestone-tempered material. There are a few shell-tempered sherds near the top.

THE ARCHAIC OF THE WALTER F. GEORGE RESERVOIR AREA

by

Harold A. Huscher

In the original River Basin Survey's appraisals of the Lower Chattahoochee River Valley above the Jim Woodruff Reservoir, a total of twenty sites were pointed out as likely to yield information bearing on the problem of the Southeastern Archaic. One site, a rock shelter north of Columbus, Georgia, the Jordan Rock Shelter, 9 ME 8, had been excavated and reported on by Edward McMichael for the University of Georgia. 9 ME 205, the Standing Boy Site, three miles above Columbus, Georgia, discovered by McMichael on intensive resurvey after removal of forest cover from the reservoir basin, was dug by McMichael in 1959. Both sites are reported by McMichael and Kellar (1960) in a University of Georgia Bulletin, "Archaeological Salvage in the Oliver Basin," in which they describe the Standing Boy Flint Complex or Industry, an Early Archaic manifestation directly comparable to the decomposed flints reported by Kelly from the Macon area. At the Columbia Dam and Lock area, 3 miles below Columbia, Alabama, of 14 sites listed three were noted as probably bearing on the Archaic Period. However, excavation here revealed that most river bottom sites yielded a regular gradational stratigraphy, with Archaic components increasingly in evidence below three feet. Of the more than 300 sites known within the reservoir area of the Walter F. George Dam and Lock, 8 were originally pointed out as having probably important early components, and eight others as yielding soapstone or fiber-tempered sherds. Of these recorded sites, 9 CLA 2 and 9 SW 10, -11, -12, and -34 (Tallipahoga Run) were dug by the University of Georgia. Across the River, 1 BR 37, and 1 RU 28 were dug by the University of Alabama; the latter appraised as a late Creek site was found to have an early component along the terrace edge and was dug by Lewis Larson for its Archaic information. Because of the relationship of the reservoir to the Fall Line it had seemed to me quite probable that we would be able to locate deep stratigraphic sites at tributary stream confluences, analogous to the "eddy bar" type of site described by Joffre Coe from the Fall Line area of North Carolina. This sanguine hope has not been borne out. The actual flooded area involves only the inner valley trench and only at the extreme upper end of the reservoir, between Ft. Benning and the Fall Line at Columbus, Georgia, would there be much chance of preserving this type of site, and here the pool level is within the present stream banks. Of the originally listed early sites within the Walter F. George Reservoir Basin, 9 QU 1, 9 QU 4, 9 QU 5, and 1 RU 58 have been dug by myself, but a great number of additional sites have turned out to have important Archaic or fiber tempered pottery components. The present report summarizes information from the more important of these, but with the emphasis naturally on those I myself have been directly concerned with.

A series of residual sand hills are found on the first terrace

(the actual terrace level at the edge of the present incised meander river channel), which is consistently 50-60' above the mean river level. These remnant sand hills rise rather consistently to an additional 25' above the main river valley bottom, the first terrace. I'm not convinced, however, that these sand hills can be dismissed as simply island remnants of an old second terrace system, though that is the easy and simple explanation and may well be the true one. Our interest, of course, lay in the fact that such remnants were referred to locally as Indian Mounds, or Indian burying grounds, hence required at least some checking.

All the observed sand hill sites lay on the east side of the Chattahoochee River in Georgia, but on additional reconnaissance we did find apparently the same phenomenon on the Alabama side below Columbia, Alabama, about five miles south of Alaga (across from Saffold, Georgia, on Highway 84 from Dothan to Bainbridge), just a short distance above the Florida State line. No work was done here, though we were in the area of the only pure Deptford site noted by Wesley Hurt on his 1947 preliminary survey.

One such site, 9 QU 39, known locally as an Indian Graveyard and so designated on the Corps of Engineers' maps, is on the east side of the river opposite Eufaula, Alabama. Here we sank three ten by tens, two to five feet b. s., one to 2.5' b. s. in a row along the top of a regularly sloping kidney-shaped hill some twenty feet higher than the terrace. The site was mapped by plane table at one foot contour intervals and the result looks suspiciously like a slightly reworked barchan dune. The walls of the test pits showed a massive, structureless deposition of a rather fine sand, humus stained at soil line, but fading gradationally to a whitish or whitish yellow sand below two feet.

Artifact content was very sparse, but flakes and non-definitive flake tools in decomposed flint did occur even in the deep levels. All holes in this kind of deposit cave in at 4.0'-5.0', so we could not carry any of these tests much deeper than 5.0'.

About a quarter of a mile to the northwest a lower hillock, which mapped out as a rather regular N-S oval, seemed quite possibly a mound reworked by flood waters. Probe-rod testing here indicated strongly resistant objects at about 2.0' below the surface so a transverse trench was run. Again, the massive, structureless fine sand deposit was found, with no sign of mound loading, and the resistant objects proved to be only the roots of an enormous sugarberry tree growing in one part of the mound. Again, flakes and poorly differentiated flake tools in decomposed flint occurred to depths as much as 5.0', when the trench collapsed.

Halfway between Eufaula and Ft. Gaines on the Georgia side of the Chattahoochee River, another rather large residual sand hill, 9 CLA 47, was reported to have been an old burying ground, and although no cultural material was found on the surface it seemed to be a comparable phenomenon. Sgt. David W. Chase dug several

test pits on this ridge and found nothing, the massive silt being comparable to that in the previous sites.

At 9 SW 34, the Tallipahoga Run Site, dug by Dr. A. R. Kelly in 1961, with a University of Georgia crew, a buried level of burned rock hearths represent the most important occupation, but a massive underlying sand has cultural traces. A quarter of a mile to the south of the site on the same terrace, stands a fairly large elongated residual hill of the type previously described, though somewhat larger, and a spot test here revealed a massive silt down to 3.0', which included flint flakes, but nothing definitive.

At the south end of Lawton Field, Fort Benning, is a sand hill area which the Army uses in part as a driver-training area, because the sand has no "body" whatsoever. The south end of this area is cut by a road, and the hill has been quarried for sand on both sides of the road. The quarry faces cave as rapidly as dug, but here we were able to shave exposures and found the upper five feet of "structureless" sand actually to show faint curvilinear patterning as if aeolian deposition was involved. No artifacts were in position in any exposed face. Lower definite horizontal bedding lines indicate normal waterlaid deposition for the main core of the hill. If this sequence of deposition is actually true of the other hills described we would seem to have ruled out possibility of truly old sites in the surviving deposits above the Terrace one level, though the chemically altered flints indicate that the reworking of the surface layers, or additional aeolian deposition, has been operative in recent milleniums. To argue aeolian deposition on any considerable scale requires, it seems, a postulate of a very considerable climatic change, an Altithermal dessication to the extent of at least partial deforestation, otherwise there would have been no source for the aeolian sand. However, such a degree of change can only be accepted if found compatible with other lines of evidence from the general Coastal Plains area. About the only thing we can say is that the cap layers do contain very old decomposed flints, but under circumstances that make it unprofitable to attempt to make more extensive investigation.

Within the surface layers of the first terrace, regular stratigraphy can be demonstrated. Below the Fall Line, the Chattahoochee River flows at a remarkably even gradient of about one foot to the mile, in an incised meander inner trench 50 feet deep which is only topped by excessive floods, and the terraces quite regularly follow the same gradient. The corollary is that on the silt terraces sites show a remarkable uniformity of deposition, if we make due allowance for the very extensive vertical migration by burrows and root channels. Artifacts of Deptford period and later, quite consistently, will be concentrated in the top two feet; fiber-tempered and steatite between 2' and 3' deep; and below three feet, unless intruded, only the heavily leached, chalked, or chemically altered flints. Even of the chemically altered flints, the deepest will be the small, side-notched, alternately bevelled types, or the narrow, triangular points with the broad, squared stems -- possibly slightly concave

sides and bases, but not truly notched. This latter type tends to have regularly serrated edges. If we allow a round number of five thousand years for the above sequence, we see that deposition has been proceeding rather regularly over wide areas at about one foot per thousand years, and actually this is a very good rule of thumb for guidance. Doubling the time span to a round number 10,000 years (which we cannot document by local information) would not change the relative positions of these cultural determinants, but would only mean two thousand years to each foot of deposition.

Three sites below Columbia, Alabama, dug in 1959, 1 HO 22, 1 HO 24, and 1 HO 28, have been reported in summary in the Annual Reports of the Bureau of American Ethnology, and in the "Appraisal of the Archaeological Resources of the Columbia Dam and Lock Area," distributed in 1959. The surface layers of all three sites were characterized by a pottery type variously described as Wakulla Check-stamped of the earlier variety, and as McLeod Deptford. To avoid the connotations of Deptford or Weeden Island relationships we use the non-committal term Wilson Checked-stamped, a type name set up, though never published, by Wesley Hurt, based on a collection from the Wilson Creek sites two miles to the south.

It is the earlier levels, however, which are here under discussion. In particular, site 1 HO 22, on the west end of the dam axis, has a well-defined camp level at a depth of 3.5' b. s., with anvil stones, flint flakes and scrap, large stemmed points and blades, and Stallings Island Fiber-Tempered pottery, with the linear stab-and-drag decoration. Two small sherds of steatite pottery occurred at this level. This assemblage must represent an in situ camp, contemporaneous phenomena rather than a fortuitous conjunction, because the articulating two halves of a Stallings Island rim sherd were found about twenty feet apart on this buried level. At adjacent 1 HO 24, a definite camp layer was found at 1.5' b. s. with points and blades in position, but no associated features; from 2.5' to 3.0' there was a definite zoning of plain fiber-tempered sherds, a little higher in the column than at the preceding site, and a rather clear Archaic level with heavy stemmed projectile points at 3.0' - 4.0' below the surface. 1 HO 28, a site across the Mound Branch to the west, yielded large numbers of the heavy stemmed points, but much less of the older Archaic material (chalked flints). In short, 18 1/2 ten foot squares were excavated at these sites in varying depths to 5.0', all material was screened, and caving was a continual problem.

These sequences proved to be the type sequences for a series of sites farther north, all with closely parallel vertical columns.

In 1960, 1 QU 4, the Bledsoe's Spring Site at Georgetown, Georgia, was dug by a series of ten spaces 10' x 10' in varying depths to 5.0', all material screened. The site had been selected for its Mississippian surface layers, but it proved to have older levels; a level of burned rock hearths at 2.0' - 2.5' and chemically leached flints to depths of 5.0', at which depths caving became so bad that

we abandoned the attempts.

In the fall of 1960 we shifted to a system of power screening instead of the old plow-handle, two-legged shaker screens we had been using, (usually referred to as the elbow-grease or Armstrong method). The power-screens, now in use by a number of institutions though they may still be new to other areas, are simply the old two-legged shaker screens made about three times as long and driven by a separate power unit which is in effect a mechanical man, simply substituting a piston-like power stroke for the hand action. We were thus able to operate more efficiently with a greater number of systematically spaced tests, and the total sherd recovery meant larger and more accurate samples.

At Spann's Landing and at Hardridge Creek, Henry County, Alabama, two sites with surface material of Mississippian age, 1 HE 34 and 1 HE 51, the first sites dug with the new power system, yielded a succession of older types at deeper levels, and chemically leached flints in a non-ceramic level from about 3.0' to as much as 5.0' b. s.

A more important site, for our immediate subject, is 1 RU 72, the Kite Site, an important Early Woodland manifestation noted by Sgt. David W. Chase in 1960. The camp lies on the banks of Hatchuchabee Creek, about 1 1/2 miles west of the site 1 RU 28, investigated by Lewis Larson for the University of Alabama, and additionally explored by Edward S. Kurjack. Five 10' x 10' squares taken out at the Kite Site, 1 RU 72, gave the usual stratigraphic sequence, but an important feature here was the finding of two burned rock hearths at depths of 2.5' -- one with a crude percussion-flaked point of the general Guilford profile, in close proximity. We cannot actually demonstrate direct association of the point with the hearth in such deposits as this, but the assumption of close contemporaneity is justified. A somewhat similar lanceolate point was found in the preliminary excavation of the Jordan Rock Shelter, 9 ME 8, above Columbus, Georgia, but in a milky quartz. The small side-notched, alternately-bevelled points, in the completely leached flint, are definitely older than the rock hearth level in the Kite Site, as in others where our stratigraphic control is best.

Two very important sites at the north end of the Walter F. George Reservoir, on the Fort Benning Military Reservation, have shown similar deposition sequences, though problems are raised by locations on side drainages away from the Chattahoochee River. The site 1 RU 58 (Yuchi #4) was located by Sgt. David W. Chase, who excavated four squares and found a number of pits yielding Woodland pottery types, but in particular, the Classic Weeden Island II. Additional work here to a total of 22 squares, dug in various depths to 5.5', revealed a very productive level of Stallings' Island fiber-tempered pottery at 3 - 3.5', but a scattering of pre-ceramic artifact types at lower levels.

Because these sites have been in areas heavily timbered in the discernible past, collection of trustworthy charcoal for C14 analysis

has been a problem. Lacking clearly defined feature boundaries it has been impossible to rule out burrows, root channels, or burned out roots. In an attempt to rule out intrusions at Yuchi #4, we returned in November, 1961, and used power equipment in excavating an area 20' x 20' by 6-inch levels (0.5'), shaving at each level and excavating or pedestalling any discerned features. This test was carried to 5.0' b. s., but even at the lowest level, well below the fiber-tempered zone, we still found recent charcoal, and even partially carbonized vegetal fragments. Reluctantly, I am forced to announce that in four years of work with these open-sites, I have no early carbon samples that I would trust.

One other site, 1 RU 72, a terrace remnant on the north side of Yuchi Creek, should be mentioned here. It was dug as a standby site in conjunction with the Yuchi #4, just cited. Here, below the usual Mississippian and Woodland surface layers, fiber-tempered and steatite sherds were uncovered. Particularly noteworthy were fiber-tempered sherds with brushed surfaces inside and out. At about 3.0' - 4.0' b. s. this site yielded a quantity of flakes of a pure rock-crystal quartz (completely transparent glassy quartz), and a thick lanceolate point (Guilford profile) of the same material. There is a definite Old Quartz phenomenon in the Lower Chattahoochee area, as noted by McMichael for the Standing Boy Site, 9 ME 205, but this is absolutely the first in situ Old Quartz level we have encountered. The single Guilford (affinis) point found at 3.0' b. s. in the Jordan Shelter Site, 9 ME 8, being a dubious second. Though numbers of "Old Quartz" artifacts occur in the collections, they are blunt-edged, stream-rolled, or in contexts that imply transportation, secondary deposition.

PALEO-INDIAN PROBLEMS IN KENTUCKY

by

Martha Rolingson and Douglas Schwartz

For the past two and a half years the University of Kentucky Museum of Anthropology has been conducting research on the Paleo-Indian in Kentucky. A study of fluted and related projectile points was undertaken in 1959 and 1960 which documented two hundred and fifty Kentucky Paleo-Indian points and provided a base from which more specific research could be directed. The geographic distribution of these points indicated major concentrations in the northern and western sections of the state, specifically the Bluegrass, Western Coal Field and Jackson Purchase physiographic regions. Only four occurrences were recorded in the Eastern Mountains.

Projectile point types found included Clovis Fluted, Quad, Cumberland Fluted and Meserve and lanceolate-shaped forms--all of which are found in other sections of the eastern United States. While there is no direct evidence to indicate the chronological position of these points in Kentucky, radiocarbon dates in other sections of the eastern United States suggest that the Clovis Fluted points may date prior to 10,000 B. C. while the Quad and Meserve may date between 7,500 B. C. and 5,500 B. C.

A review of the geology and biogeography of the eastern United States suggested that the physical environment of Kentucky since 10,500 B. C. has been relatively uniform. Conditions have apparently been basically similar to what they were in the eighteenth century--a deciduous forest cover with an abundance of wild game. The only major climatic change occurred during the Altithermal (5000-2500 B. C.) when slightly warmer and drier conditions prevailed.

While the first part of the project had primarily inventory and descriptive objectives, a second phase began in 1961, supported by the National Science Foundation. Here the aim was to explore certain relationships between the Paleo-Indian material and Archaic culture. From the first study it was noted that thirty percent of the documented Paleo-Indian projectile points were found in association with later cultural materials, mainly Archaic. Four sites which contained Paleo-Indian elements were chosen for intensive study. This research centered on the nature of the Paleo-Indian material, especially artifacts other than projectile points and the nature of its relationship to other components on the sites, particularly the Archaic. The four sites included were the Henderson, Roach, Morris and Parrish sites, all containing Paleo-Indian and Archaic manifestations. There was also a Woodland manifestation on one site and Mississippian occupation on two sites, but since these later components do not bear on the problem under discussion, they will not be included. The data on these sites was almost entirely limited to the chipped stone tool

assemblages. The interpretation of this material rested heavily on typological comparisons with previously published Paleo-Indian sites which provided detailed descriptions of artifact types. These sites were Shoop in eastern Pennsylvania, Bull Brook in eastern Massachusetts and Lindenmeier in northern Colorado. The late Paleo-Indian Nuckolls site in western Tennessee, reported by Lewis and Kneberg in 1958, was also of major importance in the comparison and is typologically most similar to the Kentucky material. Archaic sites used in the comparison included those on the Tennessee River in western Tennessee and on the Green River in western Kentucky. The material from each of the four Kentucky sites will be summarized below along with a discussion of its components.

HENDERSON SITE

Only the stone artifacts were available to work from this site since there were no features, no burials, no bone or shell midden or artifacts, no evidence of climatic conditions, no indications of the fauna which had been utilized by the occupants and no significant stratigraphic distribution of the artifacts. Paleo-Indian elements were limited to projectile points, unifacial scrapers and graters. Projectile points included one Meserve, one Cumberland Fluted, the midsection of a probable Cumberland Fluted and the tip section of a fluted point which had been reworked with slight side notches. End scraper types included a form quadrilateral or plano-convex in cross-section; thick, ridged forms; and plano-convex, transversely flaked forms. Side scraper types were thick ridged, rectangular bars and thin, bladelet rectangular forms. Unifacial flakes with grater spurs were also common. Archaic projectile points included a range of forms with a predominance of side-notched and corner-notched types. Bifacial hafted scrapers were rare, but large core scrapers were more common. Bifacial knives were common. Drills and milling tools were rare and included one pestle and four manos. The range of artifacts at the Henderson site is limited and overwhelmingly dominated by worked flakes and tool fragments while knives and knife scraper tools are the most common tool forms.

Typologically these artifacts show similarities to both Paleo-Indian and Generalized Archaic, but the greatest resemblances are with the Nuckolls site material. To separate this material into two assemblages solely on a typological basis - Paleo-Indian and Archaic - would form two part-components, one with fluted projectile points, scrapers and graters and the other with stemmed or notched projectile points, drills, knives and grinding tools. Considered as one component they represent a unified stone industry suggesting a hunting subsistence pattern.

ROACH SITE

This site also had no Archaic features, no burials, no bone or shell artifacts or midden and no significant stratigraphic distribution of the artifacts. It did have minor amounts of early Woodland material. Paleo-Indian projectile point types included seven Quad, one Meserve, two fluted and three lanceolate. The unifacial end scrapers were quadrilateral or

plano-convex in cross-section, ridged, or transversely flaked. Unifacial side scrapers were thick, ridged, rectangular bladelets or pointed forms. Unifacial flake gravers were not common. Archaic projectile points were predominately stemmed, while corner-notched and side-notched forms, although present, were minor. Core scrapers were common but bifacial hafted scrapers were minor type. Drills, milling tools, hammerstones and ornaments were rare. Knives and knife-scrapers tools were most common. Again, the range of chipped stone artifacts indicates typological similarities to both Paleo-Indian and to Generalized Archaic and, as at the Henderson site, none of the distinctive shell mound artifacts such as atlatl weights, stone beads, axes, mauls and nutstones were present.

The material again shows the greatest typological similarity to the Nuckolls site. The chipped stone assemblage is extremely homogeneous and suggests an economy dependent on hunting. Neither the Paleo-Indian nor the Woodland elements are strong enough to suggest three separate occupations--Paleo-Indian, Archaic and Woodland, but rather the assemblage suggests one basic tool tradition which is the result of either sporadic accumulation over an extended period of years, or two components--early Archaic which includes the Paleo-Indian elements and a non-shell mound Archaic which includes the Woodland elements. If indeed two components are present, the majority of artifacts cannot be separated as such.

MORRIS SITE

At this site features included numerous Archaic firepits, hearths and accumulations of burned rocks, but there were no bone or shell artifacts, little bone midden and no stratigraphy could be established. The Paleo-Indian projectile points include twenty-two Meserve, three Quad and two fluted lanceolate forms. The unifacial scrapers included the same types present at Henderson and Roach--quadrilateral or plano-convex, thick, ridged forms and transversely flaked forms. The only unifacial side scraper type was triangular and pointed. Flake gravers were again present. The Archaic projectile points were dominated by stemmed types with few side-notched or corner-notched forms. Bifacial hafted scrapers were common while core scrapers were minor. Drills were also common. Knives, milling tools, hammerstones, atlatl weights and ornaments were minor. Such shell mound Archaic artifacts as full grooved axes, mauls, pestles, nutstones, mortars, stone balls and copper gorgets were present.

The shell mound Archaic manifestation was probably dominant. The remaining material including the Paleo-Indian elements and generalized Archaic tool forms, as at the Henderson and Roach sites, show similarities to the Nuckolls site material, and apparently form an earlier component. The essentially homogeneous aspect of the chipped stone assemblage suggests that just one tool tradition is involved, however. This may indicate, as with the Roach site, sporadic accumulation over a long period of time, or two occupations separate in time which cannot be separated typologically except for the distinctive artifacts.

PARRISH SITE

This site was reported by William S. Webb in 1951. Here site features and burials are typical of those present in shell mound Archaic sites. As with the other sites under consideration, there was no evidence of stratigraphy and no bone and shell artifacts or midden. The Paleo-Indian projectile points include seven Clovis Fluted specimens, one of which is a tip section which has been slightly side-notched. Unifacial scrapers include the six forms present at the previously described sites. End scrapers are quadrilateral to plano-convex in cross-section, thick ridged forms and transversely flaked forms. Side scraper forms are thick, ridged rectangular bars, thin, rectangular bladelets or pointed forms. There were no flake gravers. Archaic projectile points include a range of forms which are predominately stemmed, although side-notched forms are not uncommon. Bifacial hafted scrapers are predominant and core scrapers are rare. A range of drill forms are common. Bifacial knives are present. Milling tools, hammerstones, atlatl weights and ornaments are rare. The chipped stone assemblage is extremely homogeneous, suggesting an emphasis on hunting. The shell mound Archaic traits are in the vast majority while the only Paleo-Indian elements are minor percentages of projectile points and scrapers.

William S. Webb, in the 1951 report, did separate the site into two components. The Archaic included the features, burials and artifacts which resembled those present in Archaic shell mound sites on the Green River. An early hunter manifestation, separated solely on the basis of typology, included artifacts which showed similarity in forms and technique of manufacture to those found on early hunter sites in association with fluted points.

Raymond Thompson, in a paper presented at the Tenth South-eastern Conference, suggested that re-examination of the artifacts at the Parrish site pointed up a basic homogeneity for the collection, the only exceptions being the fluted points. He offered two alternative interpretations, first, that the material represented an Archaic occupation with the fluted points out of context, or second, and more likely, that the material represented a transition from Paleo-Indian to Archaic. The detailed analysis just completed reinforces Thompson's observations and supports his first interpretation--that the site is Archaic with the fluted points out of context.

SYNTHESIS

In addition to the presence of both Paleo-Indian and Archaic elements, certain other similarities within the Henderson, Roach, Morris and Parrish sites are apparent. All are located in western Kentucky. All are characterized by a shallow midden with no apparent stratigraphy. All lack bone and shell artifacts, as well as midden. The obvious absence of shell midden can be attributed to cultural factors, but the lack of bone and shell artifacts and bone

midden may be due either to action of soil acids or to cultural factors, the latter alternative seems most reasonable at the present time, however.

Isolating the Paleo-Indian elements for a moment, the projectile points are minor at the sites. These include Clovis fluted projectile points at the Parrish site, and a varying mixture of Quad, Meserve, fluted and unfluted lanceolate points at the other three sites. These are all types which have also been found as rare occurrences on shell mound Archaic sites in western Kentucky such as Indian Knoll, Carlson Annis, Chiggerville, Bartett and Butter field. A majority of these points were of the Meserve type rather than the Clovis.

Douglas Byers has already noted the distinctiveness and marked similarity in form, design and manufacture of the scrapers at Lindenmeier, Bull Brook and Shoop. The Kentucky scrapers are not this distinctive, however, but bear the essential Paleo-Indian features as do the almost identical scrapers at the Nuckolls site. These scraper forms are also present as minor types on shell mound Archaic sites and are, interestingly enough, not stratigraphically isolated in the lower levels, hence implying a certain overlap of traditions. Gravers are most common at Henderson and Morris, are present at Roach but are absent at Parrish.

The usual range of Archaic material was found at most of the four sites. Stemmed, side-notched and corner notched projectile points were found in varying percentages. Either scrapers, bifacial hafted, unifacial hafted and core, or knives were the second major chipped stone category at the sites. Other Archaic artifacts included drills and chopping and milling tools. In addition, the Parrish and Morris sites contained full grooved axes, mauls, stone balls, pestles, atlatl weights, nutstones, mortars and ornaments typical of the shell mound Archaic.

Three classes seem to appear when the sites are grouped according to the nature of their components. All the sites contained Archaic material, but one site suggests a strong element of Paleo-Indian, two other sites a more even balance of Paleo-Indians and Archaic, while the third class, present at the fourth site is strictly Archaic with only an inclusion of Paleo-Indian material.

The Henderson site contains the purest sample of Paleo-Indian material. Although Archaic elements are present, they form a less distinctive part of the artifact inventory. Not only do a far higher percentage of unifacial scrapers occur, but more gravers are present than at any of the other sites. Furthermore, there is a complete lack of shell mound Archaic artifacts.

The Roach and Morris sites appear to be somewhat different. While they both have combinations of late-Paleo-Indian and early Archaic material similar to that at the Henderson site, the early Archaic elements are more strongly represented while the Paleo-Indian elements are not as pronounced. In addition, other cultural

indications occur at both sites. The Morris contained shell mound Archaic items while the Roach possessed certain early Woodland characteristics. Only after additional work at similar sites will the exact relationship between these manifestations be understood. The implication, however, is that the sites either had a longer time range or that there was some kind of occupation by people utilizing a later part of the same tool tradition.

The Parrish site, which first gave Kentucky a reputation for Paleo-Indian, would in the light of re-analysis, seem to be an Archaic site. The Paleo-Indian material that is present seems to be an inclusion. Webb hypothesized two components, one early hunter, one Archaic, but the complete lack of flake gravers, the low percentage of unifacial scrapers, the absence of the late Paleo-Indian projectile points while only the early Clovis types are present would neither present a rounded chipped stone tool industry, nor even a strong case for an integrated Paleo-Indian element. Furthermore, the other material at the site has a high percentage of shell mound Archaic types, and consequently less of the more generalized and presumably earlier Archaic material. Thompson, in 1953, suggested that the site might be either a transitional one or be Archaic with a Paleo-Indian inclusion. This latter alternative now seems to have the best support of the evidence.

Radiocarbon dates for Meserve-Dalton and Quad projectile points in surrounding regions suggest an age between 7,500 and 5,500 B. C. We may postulate that the occupation at Henderson, Roach and Morris occurred sometime within this two thousand year span. This, then, would place the Henderson, Roach, and Morris sites temporally between the Clovis material on the one hand and the early range of Archaic on the other.

Viewing the artifact assemblage at these three sites, tools used in the hunt and for preparation of game dominate. Evidence of other activities is minor. Milling and chopping tools are scarce, indicating nuts and acorns were not a major part of the diet. Mussels were not utilized as a food resource. Artifacts indicative of cultural luxury are scarce since few ornaments, drills or tools which would have been made with drills, such as atlatl weights were in the collections. The overall picture presented by the village midden, then is of a generalized Archaic stage with an economic emphasis on hunting. Perhaps it is significant that recent evidence suggest the survival of some megafaunal forms contemporaneous with this occupation.

SUMMARY

The findings of Paleo-Indian research in Kentucky to date have resulted in the following hypothesis concerning the early peopling and occupation of the state. The first use of Kentucky, which may have occurred near 10,000 B. C., is manifest in the widespread distribution of Clovis projectile points. The infrequent occurrence of these points on occupation sites suggests a greater nomadic emphasis at this time than in the next period. This Clovis period was followed by a Meserve-Dalton-like occupation which appears both in random surface finds and at occupation sites, both significantly concentrated in the western part of the state. A gradual transition during this Meserve-Dalton period from a large game hunting orientation to a more Archaic-like emphasis

is documented in a comparison of the Henderson and Roach-Morris artifact inventories. Present evidence suggests that there was a less intensive use of eastern Kentucky during the Meserve period, with perhaps the main occupation sites in the west. Gradually the Paleo-Indian elements were dropped and the Archaic increased. Eventually, and perhaps as early as 5000 B. C., Archaic culture dominated the state. At this time or soon thereafter small occupation sites of this pattern began spreading eastward. At the same time, along the Green River and other favorable locations, shell mound Archaic developed. Elsewhere there was a continuation of the generalized Archaic pattern which had at least part of its ancestry in the Paleo-Indian.