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Stephen Williams
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EDITOR'S NOTE: PALEO, PALEO, PALEO!

This second Bulletin records the Proceedings of the Twentieth Conference held at Macon, Georgia, on November 1st and 2nd, 1963. The topic at the Conference was the Paleo-Indian Era and the program was simple in format. Friday morning was given over to the usual report on Current Field Work and was not taped. The other sessions were devoted to a presentation of Distribution data and a Roundtable discussion of the topic. Both are reported in the Bulletin. Other papers by Waddell, McKenzie, and Phelps have been added as they came in for publication during the preparation of this volume.

In looking at the Conference in historical perspective, it seems that an awful lot of time and energy has been expended on the "Paleo" problem. It is, of course, one of the most interesting and intriguing aspects of Eastern Archaeology - what were the FIRST cultures like. Unfortunately, no solutions are offered in these Proceedings; the only good reason for publishing the Roundtable discussion is to record where Southeastern archaeology was with regard to this problem in November, 1963.

The Conference was focused on the Paleo-Indian Era at this editor's request for the selfish reason that the INQUA Review volume needed a chapter on the subject. With Jim Stoltman I have now written that article with the help of the Conference as recorded in this Bulletin. My thanks for this aid is recorded on page 51. Reprints of this article from the forthcoming INQUA volume will be sent to Conference members later this summer.

On a purely technical note, the tapes were transcribed by Mrs. Sally Stoltman, and a preliminary draft of the Proceedings prepared by Mr. and Mrs. Stoltman. Final typing was done by Judith Rubinstein, and art work in these bulletins is as usual by Miss Pat Jones, whose covers have set a high standard for archaeological journals. Editorial assistance in the final draft of the Bulletin was by Alan Toth.

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THE PALEO-INDIAN ERA: Distribution of Finds

LOUISIANA: Sherwood Gagliano and Pete Gregory

All the material is from surface finds - much of it limited to Parish or county locations in Louisiana, very few specific locations or projectile points. The sample was from some rather large projectile point collections from two or three distinct regions in the state. So, in spite of the fact that the data is limited, as far as how close we can pin it down, we do have a rather good distribution throughout the state. Dr. Webb did just about this same thing in 1948 and published his results in American Antiquity; I am sure he will have some comments, possibly some corrections, to make in the distributions that we have. Our data was from different collections and in some instances possibly a little stronger as far as regions represented.

A sample of about 5000 projectile points obtained from the Northwestern State College in Natchitoches was apparently from north Louisiana and central Louisiana, and we have a sample about equally as large from southeast Louisiana and south Louisiana in the L.S.U. collection. In the Natchitoches collection we recognized about 60 distinctive "Paleo" forms. This term probably needs a little qualification - I mean the Clovis, Plainview, Angostura, Scottsbluff - the well-established Plains-type "Paleo" forms. In addition, we had approximately 300 forms that would fall roughly into the Dalton-Meserve category, the more or less transitional category. These (slide) are what we considered good Clovis. I don't think we have too much argument on this. The most significant thing about the sample is that approximately 80 to 90% of the good Paleo-Indian forms were made of stone exotic to Louisiana. That is, all the points in this slide and in the next few slides you'll see were manufactured from cherts and siliceous rocks that were imported into the state from other sources. We can pin this down in some instances, and as we go along we'll see that it suggests some possible sources for the points or perhaps even for the peoples.

These (slide) I think we can group as the Cody Complex, as Wormington calls it; good Scottsbluff forms with some variations, the so-called Cody knife, and some points here that look a little bit like Meserve, but have all the characteristics of the other Scottsbluff

in the collection. That is, the workmanship was identical, the stem treatment identical, the material identical, except that they had been reworked or had a slightly different form, so we threw them in with the Scottsbluff. There were one or two Scottsbluffs that showed a little local treatment on the blade, some serration. These were all of imported stone but of a slightly different variety.

The group of good Paleo forms that fell outside the Scottsbluff and Clovis categories was very small. We had a few that we thought looked a little bit like a Quad point; one that we considered an Angostura; and one or two that had the classic Clovis form but showed some local variations. This particular point (slide) is manufactured from local Louisiana Pleistocene gravel. It shows good shoulder grinding, good basal indentation; it is well fluted, but the blade of the point has all the characteristics of later points; the fine retouching is typical of the Pontchartrain point which occurred later in the Archaic. So we have some suggestions of carry-over in time or perhaps local invention.

This category (slide) is, I think, one of the most significant things that we found. They are points that generally resemble the Clovis, with some differences. They tend to be expanded in the middle of the blade. They are usually not so well fluted, sometimes only basally thinned, but invariably made of local material. This type was not imported, but manufactured locally, and shows some local variation in form.

The Plainview group (slide) was something of a catchall. Anything that was unfluted, we lumped together as Plainview. I think this indicates the weakness of our system of classification, or perhaps the weakness of the type. This form is obviously related to Clovis, but this other might be more closely related to Quad. In general, the Plainviews tended to be manufactured from material that was brought into the state, and not from local material.

These Plainviews (slide) show some that were made from local material. You can see the resemblance here to the category that we said resembled the Clovis. We attached the handle of Coldwater-Clovis on these for convenience. They closely resemble some of the points that Calvin Brown described from northwestern Mississippi. We are doing this for convenience; we are not attempting to attach this as a permanent name, but for the sake of discussion, so we can refer back to this point.

This (slide) brings us into the Dalton problem. There are lots of things in Louisiana that fall into this category, and it was probably the most abundant type that we considered. At least 200 were available in this sample; this group of probably several varieties we used just to illustrate that the forms are there. I think that these points will show the difficulties in our classification, not only in Louisiana, but for Florida and Alabama as well. All the points that we grouped together as good Meserves were made from cherts that we think we can trace to the White River drainage area in northern Arkansas and Missouri. They resemble samples that we have available from that area. They were all basally thinned; none were well fluted.

Again (slide) in the Dalton problem, Dr. Webb has called this type "San Patrice". It seems to be a good name in Louisiana, but there are several varieties of San Patrice.

What really hit us in the face with our sample was the fact that the very good classic "Paleo" forms were made of material that had been brought into the state. Most of the Clovis points, the Quad, and the Scottsbluff points were made from greyish to brownish chert that we think came from central Texas - it is quite glassy, very distinct and compares with samples that we have from central Texas. At least it was chert from roughly the same source, and the distribution of this material was quite revealing. All the Scottsbluffs, the Eden, and the Cody knife were restricted to the western part of the state - all of these to areas of the state that are geologically old. We didn't find any "Paleo" points in the coastal area. The one exception is a remnant site down on an older buried surface.

But in general all of our old points are from the Pleistocene and the pre-Pleistocene areas in Louisiana. Dr. Ford may find some exception to that on the braided surface within the alluvial valley, but where we place this temporally is a rather open question. The Clovis points had somewhat greater distribution, covering all the northern and central part of the state. Despite the fact that the sample was equally large from the next region, we had only a single occurrence of a "Paleo" form in southeastern Louisiana of exotic chert. So it appears that we are on the margin of a distribution, particularly with the Scottsbluff complex, that is restricted to Texas; the materials certainly suggest this

and the fact that they don't even reach the other side of the state supports it. To some extent, we're on the edge of that same distribution as far as the exotic-stone Clovis forms is concerned. But here we may only be mapping the distribution of a material type or a trade point or a group that moved in periodically.

On the other hand, the points in native stone show roughly the same distribution. These are all Coldwater and Plainview types, Clovis types if you will. They were restricted mostly to the northern and central parts of the state, with not a single decent occurrence in the eastern and the southern part of the state. On the other hand, the Daltons are widely distributed. The sample from this area (slide) shows at least as many from the northern part of the state. So if these things are distinct in time, we have a distribution of people as represented by points in the state; if they overlap in time, we may have had native groups with periodic introduction of trade material or periodic movements of people into the state. Perhaps Dr. Webb will have some comments on the same thing.

LOUISIANA: Clarence H. Webb

I don't have much more to add to what Woody had to say about distribution, but I might add a little bit about relative numbers - the number of parishes, as we call them in Louisiana, possibly represented some of our reflections about how these particular projectiles were used in comparison with the Plains area. It certainly has been true in all of our studies right along that the hill areas in the north-western and north central areas of Louisiana have been areas in which the older projectiles (presumably older), Clovis, Angostura, the fluted, and Scottsbluff have appeared. We avoid saying Folsom, but there are fluted points which do not appear at all like Clovis; they are much shorter, often much better fluted, and if not Folsom are at least Folsom-like.

I checked on distribution, and something of the numbers, after getting the report that Woody and Pete had drawn up. Out of a total of about 25,000 larger projectiles - that is, eliminating the small, presumably arrow, projectiles of the later pottery-making peoples - there are some 250 projectiles that would fall into this Paleo-Indian category that we are talking about. More than 300 fall into the class that we have

called San Patrice, which technologically is similar, but so far as its placement in time, is probably different. We look on it as a probably relatively late survival of the fluted, concaved base, thinned base projectile point idea. We feel it is late because we have found it in a large number of pottery-bearing sites; we have found it in the mound-fill of early mounds - that is in mounds on a horizon that is partially equivalent to Marksville.

Of these 250 projectiles which we consider as being in the Paleo-Indian time period, 91 are Scottsbluff. More of these, therefore, are Scottsbluff than any other of the types we are talking about. They have a very limited distribution, occurring only in about eight parishes in the extreme northwestern corner of the state. But in these parishes there are a fairly large number of them, so that although it is presumably marginal in this territory, we don't feel that this is just a matter of a few hunters who happened to wander in there. I think there must have been a fair number of these people in this hill area of northwestern Louisiana. Technologically, these are the most superb projectile points that we have anywhere in that area.

We know of at least 25 of the Clovis (possibly 30) found in 10 or 11 parishes in northwestern and central Louisiana. We have only between 15 and 20 of the fluted points (the smaller fluted forms, not Clovis) that are Folsom or Folsom-like. Similarly, there are very small numbers of Angostura - less than a dozen or so identified from the entire state.

There are not many of the presumably somewhat later forms such as Plainview. Their position corresponds to the location in east Texas, coming across from the central portion of east Texas to northwestern and central Louisiana. On a somewhat later horizon, the Passono is only occasionally known. These Passonos (as those of you know who have looked at the illustrations from Texas) also indicate that they are related to Dalton. Of the Meserve and Dalton group, there are some 49 or 50 so far identified in Louisiana. And finally the terminal group of San Patrice - over 300 found on at least 75 to 100 sites in from 1/3 to 1/2 of the total parishes in Louisiana.

One of the interesting things we can think about - and I think we can come nearer to it in the discussion tomorrow morning - is how were these early projectiles

used, and were they used in the same way in the hill areas of the Southwest as they were out in the Great Plains areas? For what kind of hunting and for what kind of animal were they used? At least in Louisiana there are high hill areas. There are very few fairly level savanna type high terraces. These are not level terraces at all. They are either rolling hills or fairly sharp high hills. These projectile points are usually found along the streams or out on the hilltops of these higher areas, which, in the present time at least, and also in the historic period, have been heavily wooded. Is this the kind of territory in which you would expect to find the American elephant and the large bison, or had these people changed their habits and started to use this same kind of projectile for smaller game in this part of the United States? This is good deer territory, but it surely doesn't look like bison country. I threw this out for a consideration of the ecology and the use of these particular tools and the kind of hunting these people did, in comparison with the use of the same tools in the High Plains area.

KENTUCKY: Douglas Schwartz

This is the way we (Schwartz and Rolingson) decided to attack the question. First we decided what definite Paleo-Indian points we knew about (we didn't include Coldwater), and we simply looked at the private collections and those in museums to find what the distribution was. Then we tried to analyze the distribution in terms of geographic area, intensity of occupation, and other things, to see what came to mind as a result of these distributions. We hoped to be able to find concentrations of these projectile points, and in the second phase of the project, to begin to do some excavations at Paleo-Indian sites so we could begin to put these in order. The first project, the distribution one, resulted in a Master's thesis by Martha Rolingson who gave a paper here last year. The second project we were able to do as the result of a National Science Foundation grant, and this manuscript which describes four Paleo-Indian sites in Kentucky came from the survey and will probably be out in a year.

First, let me say something about the geographic areas in Kentucky to give you some idea of the kind of regions these points are found in. Kentucky, as many of you know, has an eastern section which is a very mountainous region. Then in the west, there is a semi-circle

of fairly sharp hills bordering the Blue Grass region, which is a peneplain - a gently rolling area with deeply incised meanders. South of that is an area which is also gently rolling with meanders, but not nearly as deeply incised, and with much broader river valleys. The western coal fields have somewhat more local relief than the Mississippian plateau. It also has generally narrow river valleys. The Jackson Purchase, the upper part of the Gulf Plain, has very broad river valleys - the Mississippi, Ohio, Cumberland and Tennessee. The state is bordered, especially on the north, by broad river bottoms along the Ohio and by narrow ones from the Big Sandy to the east.

The survey revealed about 250 points, and we have added some to that number since we completed the survey, but the percentage distribution is about the same. Now let me say something about the percentage distribution of these points in these various areas. The eastern mountains had just a trace of Paleo-Indian occupation as evidenced by this survey. The Knobs had none at all. The Blue Grass, in terms of the percentage of points found, had the heaviest concentration with about 39% of all points coming from this region. The other three areas had about an equal number of Paleo-Indian points, around 20%. The heaviest concentration, then, was in the Blue Grass, the western coal fields and the Jackson Purchase area, and the least concentration was in the Mississippian plateau and the eastern mountains; recognizing a local concentration in the Mississippian plateau, but considering the amount of area here, it had a lower concentration.

This slide shows the distribution of the Clovis points, and there were 97 Clovis points in our sample - three times as many points as any of the other types. We had six types that I am going to show maps of: Clovis, Cumberland, Fluted, Meserve or Dalton, Quad and Lanceolate. The Clovis points, as you can see, are concentrated between the upper drainages of Green River with a few scattered around in river basin areas, and especially along the Cumberland where we had a couple of sites. Unfortunately, these were not sites that had a heavy concentration of Clovis points as opposed to other types, such as Meserve and Quad.

The other you'll see show only a scattering of points. The Cumberland Fluted points, for example, show about the same kind of distribution, only many fewer. Again, there are quite a few in this Blue Grass region, nothing

in the eastern mountains, nothing in the Knobs, a concentration in these two river areas, a few in the river valleys of the western coal fields and the lower Green River, and a few in the same area of sites on the Cumberland River.

The Meserve points are scattered around the state in decreasing numbers. It is interesting, I think, that the Meserve points, not the Clovis, are found here in the eastern mountains, with later material. Except for this concentration here, there is not a significant number of Meserve points.

There were 33 of these Quad points, and there was the same kind of distribution - that is, nothing in the Knobs, a few in the Blue Grass area, a few between the upper drainages of the Green River, and a heavy concentration here in the Tennessee Valley. These points were excavated during WPA times at the Roach site, one of the sites we analyzed as a result of the NSF project.

Finally, there are the Lanceolate points which have the shape of Paleo-Indian points but not necessarily the distinguishing characteristics, such as fluting. Their distribution did give us some idea of where they might be found.

I have some general remarks that might be more appropriate later in the summary, but they may serve to open the discussion. As we compare the two major kinds of points that we have, the Clovis points seem to be spread widely over the state, to be heaviest in concentration, and not to occur generally in sites. It looks as if this situation conforms quite nicely to their early time placement in non-occupation sites. On the other end of the scale, we definitely find the Meserve and the Quad in higher frequencies in occupation sites. We hoped, when we began excavating, to find good Paleo-Indian sites in occupation areas which had Meserve and Quad. In every case (in all four of these sites), we found simply Archaic materials mixed with Meserve, Dalton, and the unifacial worked tools.

The Cumberland Fluted, on the other hand, does not occur at all in these sites with the Dalton-Meserve, Quad points, and Archaic material. It seems reasonable to hypothesize that these Cumberlands come intermediate in time between the earlier Clovis, on the one hand, and the later Quad and Meserve on the other.

Again, just playing the devil's advocate, I would suggest that we reserve the term "Paleo-Indian" only for the Clovis and Cumberland Fluted material on the basis of the kind of life that these people led, to judge by the kind of occupation sites we find. Once you begin to settle down in the way that the people who were making the Meserve and Dalton points were, we really can't call them Paleo-Indian any more. This is simply Early Archaic, perhaps, with a holdover from the Paleo-Indian tradition. I hope that stimulates a little discussion.

I would like to express my appreciation to the National Park Service and the National Science Foundation for funds. In our later excavation we found Kirk points and other things which we recognized as a little earlier than major Shell Mound Archaic material, but we did not look for these in our earlier distribution studies. However, that kind of material was recognizable enough for us, so, if it had been there, we would have pulled it out.

SOUTHEAST IN GENERAL: James B. Stoltman

(This presentation is being published in the INQUA review volume, 1965, Princeton University Press)

LOWER MISSISSIPPI VALLEY: Stephen Williams

Since Jim Ford won't say anything about it, I'll tell you what I think I know about this problem for the Lower Mississippi Valley. I can't say too much about distribution. We do have large Clovis-type points around the edge of the valley. Of course, most of the surfaces within the alluvial valley itself are not of great enough age so that one would expect points of this type to be found there. Around the valley edge on the bluffs we do have another type that we haven't got a name for but which is a smaller version of the Clovis point. It's roughly 1 3/4 to 2 1/4 inches long with somewhat the same proportions as the Clovis point, but certainly if one did a length-breadth ratio on these points, it would be quite different. These points are known from as far south as around Vicksburg and are quite widespread. I think some of them occur in the groups called Clovis by other people earlier this afternoon.

We have already hassled about Coldwater and what they are or are not. They do occur along the eastern bluffs of the Mississippi Valley, and as you've seen, occur in Louisiana, as well as on the other side of the river.

In regard to Daltons, these are a very important projectile point type from within the valley itself. That is not to say that a few fluted projectile points have not been found here also, but they are relatively rare. Daltons, on the other hand, are quite common, to put it mildly, within the Lower Mississippi Valley, in the alluvial valley itself. For example, Ford has some sites with as many as two hundred Dalton points from within this area, and they extend to the head of the valley. There are a large number that have been found in the Cache River Valley (an old channel of the Ohio River) right in the southern tip of Illinois. This area was worked by Howard Winters and is as yet unpublished, but there are a number of sites with Dalton points there. They are found to the north and west of the Valley and, of course, were defined originally as from Missouri.

One thing that I think is of interest concerning Dalton points is that there are quite a number of varieties in the material that Ford has collected from the Lower Mississippi Valley. In fact, Ford's assistant, Alden Redfield, has been using a classification of point types derived from Dave DeJarnette and others' work in Alabama. A number of these Dalton varieties were identified by Redfield from the Lower Mississippi Valley.

FLORIDA: William Lazarus

I'm from the Panhandle in Florida, the counties that face on the Gulf, south of Alabama. This puts us in a rather unusual position. In one sense, we're tied to the Alabama nomenclature system. Dave and his people keep flooding me with the information on all the point types that are up there, and then I turn to Mecca in the east and south and I get Suwanee, everything I hear is Suwanee. So I'm torn between Suwanees and a whole raft of nomenclatures from the other direction. What I have done over a period of time is to look at these surface collections. I guess that in the past five years I have looked at a thousand projec-

tile points. Projectile points are not common on the Gulf Coast. There is no native stone to speak of; there's a little chert up around Marianna, but there is very little native stone.

We have about a thousand points that I've seen and out of these I've sorted out, identification-wise, some 61 points that are either Big Sandy I or Paleo-like points. I'm not going to call them "Paleo" points because we don't have a single really fluted point. All these are basally ground, however, and I have observed one interesting thing with regard to the Big Sandy. The Big Sandies from our area are identical with ones from Alabama. I can lose our Big Sandy I's in the Big Sandy I's from Alabama very easily. It is interesting to observe that of these 61 points, 30 (Big Sandy) come from 11 sites. In contrast, the other 31 points now come from 26 different sites which emphasizes that they are widely distributed. The Big Sandies seem to occur on occupation sites, but I don't believe I can say that for the other 31 points, although they sometimes show up close to or adjacent to an occupation site. I think it more or less reinforces what's been said previously. The Big Sandy data seems to indicate that the people have settled down a bit and are in one area. Now I want to show five or six slides and that's all I'm going to do to give you a feel for the type of projectile points which are Paleo-like, although they may not be "Paleo", on the Gulf Coast in the northwest area of Florida.

These are basally ground points (slide). The first one really to show up down there is the one on the left. I took it out to show Dr. Wormington, and she said that if it had been found in Texas, it would be of the Midland type of point. I think Gagliano had one almost identical to that in his collection.

Those are the types of points which impress us as being Paleo-like on the Gulf Coast. I don't know whether that helps too much. I would observe one other thing: these long points generally have a different width to length ratio from the Suwanees. I believe that I can demonstrate in chart form that you can pick out this type of point from a Suwanee point rather clearly.

FLORIDA: Charles H. Fairbanks

The fishtail Suwanee points from northwestern Florida area have been found both in the Aucilla River and the

St. Marks River in underwater situations which gives us little or no information as to where they may have occurred. As far as I know there are only two Suwanee points, both of them fluted on one side only and basally ground, which have been found in excavated situations. One is the one that Allen got in the Wacissa Bottoms with his Wacissa complex, which occurs on low sandy rises in the middle of otherwise marsh or swamp terrain. The other was found in a solution pocket that had subsequently been silted in. In the same pocket at approximately the same level was a mastodon tooth and some shell, dated at about 6000 BC. This is, of course, in the Darsby Springs - Hornby Springs report by the Florida Geological Survey.

We do find the Dalton points in northwestern Florida, east of the area which Lazarus has been talking about, but so far I have so few of them that I can get no distribution. I would like to let Rip Bullen talk about central Florida, because we do have them down as far as Silver Springs, and I think Bullen is more familiar with that central Florida area than I am. They do occur down there.

It is of some interest that in mapping the Pleistocene shoreline, there is one place at the Four Mile Village where the present shoreline and the Pleistocene shoreline seem to virtually coincide. Throughout the rest of the peninsula and the northwest coastal plain of Florida there have been rather extensive shifts in shoreline since Late Pleistocene times. This Four Mile Village site is an area where we had the Eliot's Point Complex in a blowout at the top of a 70 foot sand dune. In that same blowout but redeposited was the base of a Midland-type point.

A good deal of these early points are a sandy quartzitic material. It definitely is not a local material. We do have local outcrops of flint in the Aucilla-Wacissa - St. Marks (Jefferson County) area, but as far as I can tell they were not using it on this Suwanee level.

FLORIDA: Ripley Bullen

While I've been listening here I've realized that most of you don't know what we mean by Suwanee points so I've tried to do some drawings. These Suwanee

points are pretty broad and they have a rather heavy rounded corner. Now, as we use the nomenclature, Suwanee point covers a multitude of sins; it is a catch-all. If you read through the literature you'll remember that on the southern shore of Paynes Prairie, Goggin had a Sante Fe complex. Now, his Suwanee points had a very thin corner; I mean the corners are sharp. They are not like standard Suwanee points, but we have never found enough of these things in situ or in any other place to do any study on them so we just let their relationship remain amorphous. In the meantime, there is this to be said: there are probably one or two, or maybe three, fluted points in the whole of the peninsula of Florida. They are pretty rare. There are probably 150 of the Suwanee points of various kinds. Now, they seem to collect, as far as we know, near water. A number of them - 20 or 30 - have come out of the Khtucknee-Sante Fe River drainage. They are found there in the water with Pleistocene faunal bones all broken up, and with pig bones and Coca Cola caps.

Now you notice a lot of Suwanee points have been found around Paynes Prairie, perhaps 20 or 30. They also tend to be found around these sinks, or in the sinks, in the springs where the water comes out. Neil has presented an interesting idea that it may be that they were watering holes for the animals which tended to collect there. This is just his idea, but I will say this, the physiography of Florida was vastly different when the Suwanee man was walking around hunting whatever he hunted. The points, when they are found in situ, are found under eight feet of sand and stabilized sand dunes. They are found on top of clay. There have been eleven points found around Tampa Bay. Eight of the eleven points found have been pumped out of the Bay. This is a peculiar situation.

Suwanee points have been found on the east coast as far south as Cape Canaveral at South Indian field. By the way, all of these have rubbed bases. One of these was dredged up at Charlotte Harbor and another one found at an inland site at Tampa Bay within the year. I presume that all of these points would go into the Late Paleo or you might call it transitional Paleo into the Dalton period.

GEORGIA: A.J. Waring

I just wanted to mention four new fluted points that appeared during the last year. Three are in a large collection in the Civil War Museum in Washington, Georgia. They all come from the same site in Richmond County. I have not visited the site. Another one comes from Burke County on the edge of what is called Boiling Springs on Birdville Plantation. These are the only four new points I know.

Williams: For the record, what about the site I went to with you on the Savannah River, south of Augusta - where all the funny colored flint is?

Waring: Well, there is one half of one fluted point there at Briar Creek.

Williams: Bob, you were going to give me some data from the Georgia Survey.

Wauchope: We have only two, from North Georgia.

Williams: Chuck, we might as well put down for the record the ones from - was it Wren's County?

Fairbanks: Wren's, Georgia, in Jefferson County.

GEORGIA: A.R. Kelly

Some years ago I was in Wren's, Georgia. I met a school teacher there and he had a very remarkable collection of fluted points. He had at least eight perfect ones. This was about 1935 or 1936. I was never able to get from him a statement of precisely what site near Wren's these came from, but they came from near there. I have seen one or two others in local collections from there. And I think that these data are enough to indicate that there is some sort of concentration of Paleo materials in that part of Georgia. The only one I know of that has come from an excavated site is the one that I found at Macon.

SOUTH CAROLINA: Eugene Waddell

The Charleston Museum has recorded 21 points from South Carolina and 16 of the 21 or about three-fourths

of them are from the Santee River drainage basin which runs right through the middle of the state. The other five are from Beaufort County at the mouth of the Savannah River. All the points that I have heard about in South Carolina are from either of those two river drainages. The Santee in the middle or the Savannah on the side.

Four of these points have been described in literature in 1939 in American Antiquity by Dr. Wauchope; and four more were described in 1961 in American Antiquity by Dr. Waring. Those four are from Beaufort county.

NORTH CAROLINA: Joffre Coe

In fact, I don't know what we are talking about at all right now. As I understood the introductory remarks, Paleo-Indian was the time period, up to 6000 B.C., is that right? Now all we are talking about is a fluted point which is sometimes not fluted.

Williams: It's an imperfect world!

Coe: All I can add is more imperfection to this situation. But it does make quite a bit of difference in distribution, if we are talking about fluted points only, or about anything that happened prior to 6000 B.C. It is my humble opinion that fluted points are only a small part of what may have happened prior to 6000 B.C. So if we limit our discussion just to fluted points, we are going to miss a great deal.

One or two other impressions came to mind which I probably have forgotten right now. One thing specifically deals with types, or what we are calling types. Now this is, of course, a new topic on discussion of how to define type. About 30 years ago, some new comers to the field thought Nelson and a few others missed the boat on how they were going to define projectile point types so they added their own interpretations. Now, about 25 years later, we find that the new generation has rediscovered these facts of life again, and they are going through the same process. It would seem reasonable that an intelligent body of people, in one or two generations, could come up with something workable in terms of defining a type. But

we seem to vacillate between two type concepts. The continuum concept in which you have two ends or polar points, like black or white, or night and day. Then you have the twilight zones in between or something like a photographic gray scale that goes from complete opaqueness to complete translucency with steps all the way in between.

The other concept deals with a specific kind of type, in which you have definite boundaries like Friday. Now it isn't Friday sometimes and Saturday sometimes, it is either Friday or it is Saturday, one or the other. At a particular point the change does take place. Now this is arbitrary, admittedly, but nevertheless the change does take place at a particular point. Everybody knows or can find out reasonably soon whether it is Friday or Saturday. Now, you talk about something like an insect; it's not defined as an organism that has six legs sometimes and five some other time, unless it has an accident. It is a definite and perhaps still an arbitrary definition, but this isn't true in archaeological types.

We deal with the continuum all right, but everybody recognizes that these are continuums. If you had all the projectile points ever made in the Southeast (Heaven forbid!) and laid them all out in the line, from here to Peking, you would not see any noticeable difference between the adjoining specimens. This is a slow evolution of style, and you've got lots of time for this to take place - 6000 to 10,000 years or so. But the change did take place, and it did take place slowly. And you have to cut off your description of types somewhere along the line.

If there is going to be any communication between people in the field, then we can't talk about Daltons as if it's anything that happened to be handy. If I recall, no one ever found a Dalton point in the Southeast prior to the last conference in Chapel Hill, and then all of a sudden, they're everywhere. Dalton, as a point type, has to be defined according to certain observable characteristics. Now, as I say, all points are part of continuums, where are you going to cut it off? The cut-off is arbitrary. We looked at slides this afternoon, and in further discussion we found the cut-off point is also rather flexible, and moves back and forth across the spectrum with great facility. Now this shouldn't lead you to believe that I am going to make any profound statements about North Carolina. The

problems are still there. My greatest resource, in this respect, is that there aren't too many people working in North Carolina, so they don't have different opinions.

I am speaking of Paleo-Indian as a time period, an arbitrary cut-off in time. We find the side-notched points earlier than the lower level in Russell Cave. Mr. Miller will probably want to contradict me, but, still in terms of our sequence, the material comparable to the Russell Cave lower level is later than little triangular points, with corner-notches that have frequently been called Hopewell, and still are called this in some places close to Carolina. But these points are all ground quite heavily on the base, some serration is characteristic, some more pronounced than others. They're quite different in all ways from anything mentioned today as Paleo-Indian, yet they're in the time period.

If the dates for Russell Cave are acceptable (9000 years ago for the lower level) then these points must be somewhat earlier. When we go back in time from this, then we find something comparable to the fluted point. Yet our Hardaway blades, which are our oldest materials, and which certainly have to be fairly close to 10,000 BC, are broad, rounded, pointed, and usually are not fluted. If we use fluting in the correct sense, they are not fluted; basal thinning - yes, but fluting - no.

Now to wind up this meander with respect to the subject of Paleo-Indian points of Clovis-fluted type; they occur in North Carolina from the coastal area to the mountains. Perhaps the largest number of points are found in the coastal plain area, not in the Tidewater. In the Piedmont, they are fairly uniformly, though thinly, scattered throughout the whole section. In parts of the mountain section, they also occur in considerable number - in the valleys, on the high terraces. But, they are not there by themselves. That's the only point I was hoping to make today.

ALABAMA: Carl Miller

I have one site (Russell Cave) to judge the early projectile points from. Like Joffre Coe, my earliest points called Kirk serrated are not fluted. The bases

and the sides are well rubbed, but the edges of the blades are serrated. The earliest point I did find within the Cave, which gave a date of little over 9000 B.P., was also an unfluted point which resembles either a Clovis or a Quad, whichever you want to call it. Now I don't quite go along with this idea of size range for Clovis, because when Haury found that site at Naco and found Clovis points within the skeleton of the animal, he found two sizes, both the large and the small.

Size or length to breadth ratio does not work. If you are going to find two points within an animal and one is a long one and one is a short one, there's something wrong someplace. The Clovis men wouldn't come along and shoot that same animal several thousand years later. So as far as I'm concerned this time range according to size is rubbish.

I wanted to know what the distribution of types was, with regard to time. This Chart is based on C-14 dates that have been furnished me by the University of Michigan. Here are the depth range in the site and the types. I have not worked up the whole series because I have not had the time, but in the group I worked up, I noticed that the Greenbrier Daltons fall down there on the chart. Just before I came down here I looked up the Nuckolls Dalton, and the Nuckolls Dalton comes in right before the Yarrowborough and goes up to about 6900 B.C. I am like Joffre Coe, I can't say that this is specifically Dalton, this is something else, because there's a gradation of forms one into another. When you say specifically this is Clovis, this is Quad, this is Folsom, or whatever you want, you're cutting up a series, which is not always valid.

In Russell Cave, we had a long series based upon some 2700 points, and the bulk of the point types do not come within the Paleo period; but within the Archaic. I found that in looking over the forms, you have a series, a very small series during Paleo times. But during the Archaic times, you have a ballooning of forms like a battleship graph. As you come up towards the historic times, the number of forms becomes fewer and fewer. And that's what I wanted to say about Russell Cave. You have a series of forms and that the earliest form, outside of the Clovis form, is the Kirk serrated.

Williams: If I may answer Carl in one thing. I did say that we do find small Clovis points along the bluffs of the Mississippi. We don't find the large ones. I think we are trying to find out what their temporal relationships are in some other areas. I am quite familiar with the Naco material.

It is quite true that in the Classic Clovis area there's a considerable contemporaneous range in size. It may be true here too, when we have all the data from this period in the Southeastern United States. But I think it is useful as a trial operation to set off a smaller variant here. If we do find, as I feel the present data suggest from the areas adjacent to the Mississippi Valley, that we have just this small Clovis point, then it's a useful entity. I think that's what types and varieties of types are for. Someday we'll know exactly when every one of these varieties date.

MISSISSIPPI: Paul Hahn

I've not really studied these collections in detail; I've only seen two or three of them. Some of them are quite large. These are made by amateurs, in the northwestern quarter of the state. They are largely collections that each individual has made when he goes out fishing and collecting at the same time. There are four river basins for drainage control in the area, the little Tall Ahatchie, quite valuable because most of the collections are from one particular valley.

My remembrances are sketchy, since I've seen most of these in thirty minutes or so without really studying them. One of the largest collection I saw on the way home from a long day of collecting potsherds on one of the lakes. This collection had some rather large points, as I recall, and I think they do fit the Clovis type. There are, I believe, some of the points that are called Daltons, and some Clovis, and various other types that are here. Thus it is an area that is worthy of examination.

ARKANSAS: Gregory Perino

When I was working at Cherry Valley in the Western Lowlands, I saw a small collection that a boy had and most of the points were Daltons. I found out that they same from the lake site five miles out in the bottom, on the L'Anguille River on the little terraces, three or four feet high. We surface hunted it and got 27 Dalton points the first time in less than three acres. When Ford came into the area I told Moselage the location of it and he gathered some more for Jim. We got 27 to

30 the next time we went, and I think Moselage has gotten 50 or 60 from this site; he has excavated and found some of them two to three feet deep in the alluvium. Up to now, I think, the people helping Ford in his survey have gotten 60 Dalton sites in the old river bottom; not in the present Mississippi alluvial valley, but over in the ancient Mississippi Valley, the surface of which is about fifteen higher than the one further east.

Now this site is 65 miles west of Memphis, just on the other side of Crowley's Ridge; you get the Daltons, of course, on Crowley's Ridge too. You also get a rare dovetail point, and you'll get an occasional Hardin Barbed point. At another site on the high bank of Bayou Devieu, which is about twenty miles further west from this first site, we got a nice Hardin Barbed point which is a point with the dovetail, that has never been associated with Paleo-Indian, but I believe that it would fit in. We have the Lemley Collection and there are at least 100 or more very fine Daltons made of Arkansas Novaculite from the Hot Springs area. This is a great area for Dalton points.

This summer (1963) Dr. Robert Bell excavated in the Markham Ferry Reservoir on the Grand River, right above the Arkansas River, near the Arkansas line. He got down ten feet, about a block out from the bluffs of the river, and found a hearth and two or three points of the same shape as Agate Basin. I notice that some of the people from Louisiana call them Angostura. Agate Basins haven't been mentioned, and I thought surely they'd be in Tennessee or western Kentucky. They are very common in Illinois and in Ohio. They have ground bases about a third of the way up. They may be straight based, convex based, or concave based.

As far as the Daltons from Missouri are concerned, along the Mississippi River, or within a few miles of it, points are out of this world. They'll be five or six inches long. They have ripple flaking from side to side. (They used to call it Yuma flaking) They will have very deep basal notches with pronounced ears. As far as the largest Daltons that we know of, we have one from Jackson County which is in the L'Anguille Valley or a little further west, but in the western lowlands, that is 11 1/2 inches long and about 2 1/2 inches wide. A lawyer by the name of Bengle, on the White River, has one exactly like it, 11 inches long. Also in that Valley and further up into Missouri we get an almost straight-based Dalton with just a slightly recurving base, that is broad, thin and flat with

ripple flakes, almost hollow-flaked at the edges. They are usually very large, and these points seem to have quite a bit of resharpening on them, they probably were knives.

Now as for the types found at Lace, we found almost 60 points ourselves. We got every type that you can think of, whether in the Dalton category or in the Meserve category. They're serrated, they're bevelled, they have long bases, short bases, they have shoulders; two of them even had a straight base.

TENNESSEE: Dan Morse

A considerable amount of information has already been given out on Tennessee. We have some 200 to 250 projectile points of the fluted variety which have been recorded or published. We are trying now just to collect data. We have an estimated 100 fluted points in Smith County up near Carthage that the collectors are going to get together for us. We have 35 of them down in the museum which are undergoing recording. All these are being put on punch cards.

So far we seem to have just some leads that we haven't been able to follow up yet. There's a possibility that we may come up with two types of Cumberland. We have some that are similar to the so-called Ross County point. We were all running around talking about Clovises and then Bill Roosa who worked at the Lucy site wrote a letter to my wife, and proceeded to tell us we did not know what a Clovis was.

We think that it is a possibility that the reservoirs may be duplicating ancient pluvial conditions in the Tennessee and the Cumberland Rivers. We do not know what the factors are of reservoirs eroding the valley shores, for instance. We don't know how much this erosion is a factor as far as collecting projectile points. Obviously, we can't go down below the reservoir levels and look, but we do know that a considerable amount of material has been found, especially in Kentucky Lake, the Nuckolls site and three or four other specific sites. These locations have produced a considerable number of both Cumberland and "Clovis" points, after the reservoirs have been constructed. We know that not too many points were found before the reservoir construction. For instance, in the Smith County area all the points so far have been above 490 feet elevation.

We hope we can get some differences concerning riverine activity versus inland activity after we do a survey. It is really a pilot experiment done on one county where we have, we think, an adequate sample, and adequate controls over collecting as well as over geography and elevation and what not. We know within a few feet where most of these points were discovered.

I would like to say that Ron Mason wrote an article in Current Anthropology about two years ago, and he mentioned the fact that according to his data there were an awful lot of fluted points in areas such as Tennessee, but not so many points of what he was calling Plano (what some people call late-Paleo and what some others of us call Early Archaic). This situation is due to the fact that when a collector brings in a group of points to be photographed (a normal amateur journal situation), all the fluted points will be photographed depending upon how much room there is in the journal and how many fluted points are available.

We have a lot of really so-called Plano material, it is much more numerous than fluted points. It would be a logical inference on the basis of this fact that there is a considerable amount of time involved. We also have indications of, as Joffre Coe, mentioned, the Kirk Corner-notched type occurring with the identical flaking pattern as the Dalton. We have many other corner notched, side notched, and stemmed points showing up with the Dalton flaking pattern or Plano flaking pattern. This is the lamellar or so-called ripple flaking.

(Question on reservoir and pluvials)

The reasoning is this; before a reservoir is constructed we may have one to perhaps half a dozen fluted points found in the area, whereas after construction, we may have 30 or 40 brought in. But we do not know how much of a factor the eroding of the actual sides of the reservoir is, because the reservoir goes up and down. And, of course, people are hunting the shore line. We have no control over the factors of collection, in other words. So this is just a lead that we are going to try to follow. We have elevation control, but unless we get aqua lungs we can't go down below and look for fluted points.

(Question about points "rolling out of the sites")

You may get a fluted point here, but not necessarily another one. This is the discovery site and isn't necessarily the actual deposition site. Also, in Tennessee we have a lot of clay, and most of these things are laying down on the clay. What it amounts to is that we have a lot of leads.

It is just a matter of picking up the data and trying to follow it through. For instance, we have a Kirk Serrated site which produced some 120 Kirk Serrated points, plus two burials, and the usual amount of choppers and early Archaic type blades, and this sort of thing. We also have a number of Early Archaic sites, which are producing these corner notched, side notched, and stemmed points. We actually get two sorts of flaking patterns. One is the kind you get with the Greenbrier point, and the other is the kind you get with the Beaver Lake and Dalton points. In Tennessee we're getting away from this size and shape idea, and we're trying to concentrate on flaking patterns.

On the basis of Ron Mason's work in Delaware and in Michigan, and Prufer's and Baby's recent work in Ohio, it might be logical that with an ice advance in the north we should have a contemporaneous pluvial period in the Southeast and with the mountain glaciation. If this is true, and if we are going to try to localize sites, presumably some of the riverine sites should be on the edges of pluvial lakes and rivers. We don't know, it's just a lead.

We have no evidence now because we have no control and this is primarily why we are focusing on one county where we can control the factors. We know every collector in the county, we know those who sell, those who come through to buy. We know the people who are secretive about sites, and about where their sites should be. And there are several individuals who are doing the collecting for us.

MISSOURI: Dick Marshall

All over Missouri we find a wide variety of early points of which the Dalton is the most common throughout the entire state. Clovis points are found primarily along the loess bluffs along the Missouri River. As you move down into the Ozarks in the Southwest part of the state, we find small Clovis points, but they're not common. With the Dalton points (as we call Dalton

points in Missouri, which is a much narrower definition than what seems to be in use here in the South-east), especially at the original Dalton Site - Judge Dalton found and described all the material - we get another point which is multi-fluted or at least very carefully basally thinned. This point type was found in the same level in Graham Cave as Dalton points. It seems to be a Dalton point that is not bevelled and serrated, but tends to run much larger. And I have seen individual specimens that run up to eight and nine inches long. They're collaterally flaked, and, in general, a real work of art. In fact, a cache of these was found down in the Ozarks in a shelter. There were three of them, about eight inches long, and they were placed in between two rocks, with a nice cap rock set on top of them. These people were down in those hills hunting.

This slide is more or less what we are calling Dalton. It is a serrated and bevelled point. This other point (slide) occurs with the Dalton points as well as this lanceolate point right here. It is a very coarsely serrated lanceolate point. In some of the levels in Graham Cave and in Research Cave, a very carefully made lanceolate point of this variety has been found. With these points there have been found bone atlatl hooks, a variety of bone awls, and there is a roller pestle out of the Graham Cave site in its lowest level, dated 9700 ± 500 (B.P.). There is a ground hematite celt with this material and, occurring at Research Cave, and at Graham Cave, there are small bone needles about a millimeter and a half in diameter and up to two inches in length with a very small eye. I think this throws a lot of information on the way of life of these people. They seem to have had a pretty sophisticated culture.

In Southwest Missouri we find Dalton points. There's one stretch on the James River, about six miles near Springfield, along which there are several hundred sites located. Of these, 25 sites have produced a total of over 300 Dalton points, and these points are of all varieties. In Southwest Missouri we find what we call a Rice Lobed point. It is a bevelled and serrated point. Sometimes occurring in the same levels, but very rarely, we find a Dalton point. In the same level we also find what we call a Jakie Stemmed point. Out of Jakie Shelter in Southwest Missouri we have a C-14 date from the bottom level where Jakie Stemmed points predominate of a little over 7000 B.C. There one Dalton point was found in the same level.

SATURDAY MORNING ROUNDTABLE

DOUGLAS BYERS:

I think the first question we have to decide is what is "Paleo-Indian". I have seen this gospel according to St. James before and I still don't agree with it. Griffin first had this idea many years ago, and I don't know whether he got it from Arthur George Smith or Arthur George Smith got it from him, but the thing I'm wondering about is what are we doing? We're archaeologists. Are we supposedly dealing with people or are we supposedly dealing with lumps of stone? If we are dealing with people, people certainly made something more than fluted points. And if we are dealing with a group of people who made fluted points, they also made scrapers, of various forms, many of which are quite distinctive. They had a blade technique. They based many of their tools on blades; they based many of their tools on flakes which were retouched. You have a work habit which is characteristic of this group of people.

The group of tools outside the projectile point category is physically recognizable to anybody who has ever worked with a large collection of stone. This distinctive tool group can be picked up, as I have said, in Indian Knoll, and it can be picked up in other sites. I think we are dealing with a continuum, and I don't think that it is giving the correct picture to say that the Paleo-Indian era ends at half past three in the afternoon on such and such a day. Joffre Coe made a few comments along this line today. If we are dealing with people, we're dealing with a continuum. We are also dealing with people who are living in an environment that's steadily changing.

Sure, we have to have schemes to work by, but I can think of a scheme that was put out many years ago by a man named Wilbur Glen Malber. He maintained that the earth was flat, and he maintained this until his dying day, if he is dead. And everyone agreed with him, did that make it correct? I don't think so, but maybe it was correct, maybe the earth is flat. I think the first thing we've got to do is find out what we are talking about, perfectly frankly.

I've got a group of tools from Nova Scotia that are identical with the group of tools from the Bullbrook site. The Bullbrook site has more than 6000 pieces, and I haven't seen the entire collection. I hope to sometime. I know there are over 100 fluted points in it. I know that from that one site, fluted points run from a fragment which represents about half of the point, which is about 3 1/2 inches long, so that the point itself must have been in the neighborhood of 6 or 7 inches long, down to one that's 1 1/4 inches long, and they all come out of the same site. This is again like Emil Haury's Naco points which vary tremendously in size.

In the range of points from the Bullbrook site are points that are duplicated at the Lindenmeier site, absolutely duplicated at the Lindenmeier site. Unfortunately, Frank Roberts hasn't published that Lindenmeier collection completely, but the classic Lindenmeier Folsom is in a minority, a very distinct minority, at the Lindenmeier site. Some of the points which seem to be unfinished Folsoms, to go back to an old term, duplicate the Bullbrook type. The Bullbrook points can be lost in the Lehner Mammoth Collection and in the Naco Mammoth Collection. The scrapers are not so common out there, as you know.

So, frankly, I don't know what we're dealing with. We have got to decide what we're dealing with before we can even begin to talk about it. If you want to call this a time period, call it a time period. Call it the Early Period, the Middle Period, the Late Period, but I think the term "Paleo-Indian" has been used loosely. Some people would suggest that we use it as a stage in place of Willey and Phillips' Early Lithic, or of equal value with it.

If you're going to use "Paleo-Indian" as a time period, what are you going to do with the stuff on the Northwest Coast? Some of this stuff that Cressman gets out on the Northwest Coast is certainly a lot older than some of the fluted point material that's kicking around and so is some of the stuff that Carl Borden's getting off the Northwest Coast. If you come down into this 6000 B.C. area, then you've got to take in all the Desert Culture stuff and all the food-grinding complex. Certainly there are analogies to the Desert Culture and the food-grinding complex out of the desert area.

DOUGLAS SCHWARTZ:

Wait a minute, Doug, do you see this as bad? Are you worried that the Desert material and what has been called Paleo-Indian material is liable to get lumped into the same name?

BYERS:

No. I think that they exist at the same time.

STEPHEN WILLIAMS:

I thought that about five minutes ago [in prefatory remarks not recorded] I made that very point. Didn't I say that we are trying to use Paleo-Indian Era as a time period; not prejudicing the kinds of cultures which were in it?

BYERS:

Then let's not use the word "Paleo-Indian" for it. This term is something that Marie Wormington and others have been using for a long time to describe the Clovis and Folsom complexes. I think that if you're going to use it for a time period, you should have a different name for it.

JAMES STOLTMAN:

What would be wrong with the term as characterizing the most "typical" cultural manifestation of the time period that preceeds that date? The date as set up yesterday is perfectly arbitrary, and we all admit there's a cultural continuum involved. So what we'd like to do is place this arbitrary cut-off at a point wherein the Archaic type of life pattern had not really spread widely over this eastern area which we are talking about. In other words, it will have had its roots, undoubtedly, in the Paleo-Indian Era, and will then become widespread during the Meso-Indian Era. We would like to place the end of this time period at the point where this efflorescence of the Archaic pattern has not yet really taken root. We would like to base it on archaeological evidence, and we would use the term "Paleo-Indian Era" just to represent that time wherein Paleo-Indian was not the only way of life, but was the most typical lifeway insofar as we can determine from the evidence.

SCHWARTZ:

Of course, then, you'd be prejudicing your case. You'd be saying that this was the most typical lifeway because of what we know now as the most typical in the area. If it turns out later that it's not the most typical, then you've established a bad principle.

CHARLES FAIRBANKS:

I am inclined to agree. I think it would be unfortunate to potentially confuse the situation and use what probably is a valid term, "Paleo-Indian tradition", for a time period too. Half the time we drop the word "tradition", or in "Paleo-Indian Era" we drop the "era". Then we don't know which we're talking about, a time period, an era, or a tradition that extends possibly beyond this early era. I feel it would be worthwhile to be a little more distinct.

WILLIAMS:

I have no investment in this term, but I do not think numbered periods have proved too good in other areas. Despite the fact that I have some association with the concept "Early Lithic" by the nature of where I happened to do my work, I think it is best used in the way it has been defined as a cultural stage, with emphasis on stage.

So what term are we going to use for the beginning time segment? It is useful to have some kind of handle to put on this segment of time. I certainly would agree with Joffre that we are dealing with a continuum, but archaeologists have to get very tough-minded and make some arbitrary divisions occasionally just for use in delineating problems. I don't see what solution it gives us to repeat that this is a continuum.

DAVID DEJARNETTE:

I thought you ruled on this yesterday. I thought you ruled this would be the way we'd look at it. Now we're back where we started.

WILLIAMS:

I did that at yesterday's meetings so we'd have some basis for operating, but today we are discussing the problem as a whole.

DEJARNETTE:

I think it is all right to do what we've done. What have impressed me, as they impressed Steve, are the complex problems I see.

(Comment from floor on use of terms Paleo, Meso and Neo-Indian in the Caribbean with different dates as an added complication.)

WILLIAMS:

If we had to worry about how other people have used terms and not use any of them, we would have run out of terms somewhere around 1875.

DEJARNETTE:

Steve, maybe you could tell us just a little more about this report you've got to give. What do they, the geologists, say they can do with this particular material? This means a great deal. I would have liked to follow up a little more the remarks that Dan Morse made yesterday afternoon. You got quite a bit of discussion from that, and it seemed that it should be carried a little farther too. If we can ever get into this topic it would be very worthwhile: what were the climatic conditions, what was the area like? What was the Tennessee Valley like? We certainly didn't find Paleo-Indian at the base of our shell mounds.

SCHWARTZ:

We find it on almost every large shell mound in Kentucky.

DEJARNETTE:

We didn't get any of the assemblage that you get with fluted points, or with the carry-overs like Daltons, Beaver Lakes, and various other types coming out of the earlier period.

WILLIAMS:

My instructions from Herb Wright, who is editing this volume, were very general: to prepare a review article on what is known of the early archaeology of the Southeast that might be of interest to students of

Quaternary research on a world-wide basis. So I thought that one thing that could be done with the help of this group would be to try to bring together in one place some of the scattered evidence that is now extant in the literature. That's one thing -- we're going to try to get together all the literature; also we will try to hit just this thing you mentioned -- the whole ecological problem. Of course, this sort of thing is interesting to people in Quaternary research; not whether we've got a Nuchols Dalton or a Greenbrier Dalton, but some of the broader problems.

I would like to discuss these kinds of things you've just raised, the geological questions, but I don't think we are going to get very much data from most of the Southeast, at least archaeologically derived data, that bears on this problem. Do you? I hope we can discuss some of the problems that are raised by the projectile point distributions that we were talking about yesterday in these gross physiographic provinces. Certainly, this is a pretty gross way of looking at it, but we saw what Gagliano did with the Mississippi Delta area. He went into considerable detail with reference to the ages of some of the surfaces there. I think those are the sorts of things we should be interested in.

BYERS:

This is the sort of stuff for which you have very little evidence, isn't it, Steve? Most of these finds of points are poorly documented.

WILLIAMS:

Quite right. As Jim Stoltman said yesterday, we have gone to this gross county survey just in an attempt to bring it all together. We couldn't think of anything better to do with the data. If we could go out and start collecting the data all over again, certainly, we'd ask a lot of other questions of it that obviously we can't ask now.

BYERS:

Is there any data on these points as to whether they occur on hilltops primarily?

WILLIAMS:

Well, I think there is, yes. What's the percentage, Jim, in Virginia? On less than half of the 300 points do we have any of that kind of data.

STOLTMAN:

When they do make references, it is always hilltops or water courses, but mostly there is no mention at all. One clue, perhaps, is that the major sites like Williamson, Shoop, Bullbrook, always seem to be located on promontories or some sort of vantage point.

DEJARNETTE:

Most of the sites in Alabama are above pool level of the various lakes that were created or right at the level. This is the reason why collecting has been good. This is the sort of thing that Dan has mentioned, that the water goes down, and you can go out to these sites that now stand up just a little bit. These sites would be on a terrace, or up on a flood plain -- certainly not down in the bottoms.

This lower area is where we were working in doing the Tennessee Valley excavations; we worked the sites that were going to be flooded. There are a number of sites that you find up on the upper edge of the valley, back away from the river. They're not right at the edge of the lake; they're considerably higher. This location would make it significant if I knew anything of the geology; what the Tennessee River was like at that particular time. That's really why I'm using Paleo-Indian as a time period now - maybe we could find out what it was like.

SCHWARTZ:

First I'd like to say something about Joffre's statement concerning a continuum which we've mentioned here several times. We could get into trouble if we accept this too broadly, it seems to me. In the first place, this argument about whether this should be a Paleo-Indian period, I know you would admit, would not have taken place several years ago before there was a realization of the Desert Culture existing contemporaneously with Paleo-Indian material.

So it is important to recognize that there could be more than one kind of major cultural manifestation in this time period that we're talking about. If we just allow ourselves one kind of cultural process, and that is a continuum, then we'll get into trouble. Now I think I understand what Joffre was talking about yesterday, but there is a possibility that you had two contemporaneous and entirely separate cultural traditions in the Southeast, as you did in the Southwest. If this were the case, and one died out, there wouldn't have been a continuum of these points. So I think we should not limit ourselves to this one (I hope Jim Ford isn't here, so I can use this term) conceptual model of a continuum. It seems to me that a continuum hypothesis is just one way of approaching this thing.

Now, to get back to our problem here. Why don't we stop worrying about what we're going to call it, and just say the "Pre-6000 B.C. Period"? Now we're interested in what happened, what occurred, what was in that "Pre-6000 B.C. Period". You can call it the Early Period, the Earlier Period, or the Earliest Period, or whatever - the pre-Archaic for that matter. Next year you can have another Saturday conference on what you will call this period.

What I suggest is that we set up a very simple-minded rambling kind of working hypothesis, and then we shoot holes in this hypothesis on the basis of the combined knowledge that we have here, and see if we can construct something a little more sophisticated. We start off with the kind of thing we've been talking about for quite a while, that the early material that we know about is Clovis-like. This occurs mainly in scattered, surface, unassociated finds, that is, material that's just scattered around and not in sites.

WILLIAMS:

What do you mean, "not in sites"? Was Parish not a site?

SCHWARTZ:

No, our reanalysis indicates that this Clovis material does not belong with the rest of the Archaic complex at the site.

WILLIAMS:

I'll buy that.

SCHWARTZ:

Now I'm not leaving out Bullbrook. I'm just saying that this is how the evidence looks. Then we also have a few real sites scattered around. But in terms of numbers of sites, they're very few compared to the numbers of widely scattered surface finds. So this would be our earliest material. Maybe Bullbrook is later than some of these scattered surface materials. (Question: Why?) Because I would expect to find less midden accumulation in the earlier period. That is, the further up in time we go, the more midden accumulation I would expect, because you would have a higher population density, and perhaps a greater propensity to longterm occupations.

FAIRBANKS:

Is there any evidence that early in this period populations were increasing? It seems to me that quite likely they were decreasing. As the Pleistocene drew to a close and their relationship with now-extinct forms got rougher, I should think the population of the fluted-point makers was decreasing. Then here in the Southeast the population of the stemmed-point makers was increasing because they had a forest-adapted economy.

SCHWARTZ:

Well, unfortunately, I'm going to have to contradict in a way what I said earlier. I think there was a continuum of some kind between these earlier fluted-point makers and later populations, between the Clovis and Dalton periods, let's say. For example, isn't the kind of non-projectile point material you get in Bullbrook the same kind of unifacial material that we get in Dalton sites?

BYERS:

This is what I understand.

SCHWARTZ:

I would think that if we looked at the Dalton sites, the number of them and the amount of midden, that we could postulate that there was an increase of population and that these people were simply learning to adapt to new kinds of animals.

FAIRBANKS:

Then you would see the eventual shift to the Archaic not as a shift in population but a shift in cultural adaptation to changing conditions.

SCHWARTZ:

Very definitely. And the thing that points this out so nicely is that these same kinds of unifacial tools that occur with the Dalton and earlier material also occur in these Archaic sites. We know some of the Archaic sites are multi-component. We know that they have a little Woodland up here, a little Mississippian there, and have Shell Mound material as well. This unifacial material may also be another component. But it seems to grade in so nicely that I think there's a possibility that this material is part of a continuum.

FAIRBANKS:

To reopen this question that was raised and dropped some years ago: What about the finds in the highland rim area of Tennessee and the concept that this was a prairie relic? We used to talk about the Altithermal and the migration of Naco-Lindenmeier people eastward with the deteriorating climate.

SCHWARTZ:

Well, we can't judge from the dates. Let's consider the possibility that Clovis was spread widely over North America and that these changes could take place anywhere.

FAIRBANKS:

We ought to be beginning to look for information on this. What is the time and the ecological relationship in the shift from the fluted tradition to the stemmed tradition?

BYERS:

Is there any good information on the fauna down here?

FAIRBANKS:

Devil's Den in Florida (an underwater site) was a sinkhole that had water when no place else did, and everyone and his brother jumped in to get a drink and

couldn't get out. The turkey there, as I understand it, is indistinguishable from a modern form. Now the turkey has a very limited ecological distribution. It hits certain areas and that's it. The deer, I understand, are quite indistinguishable from modern deer, and the South American Broad-nosed cave bear is there. This evidence would seem to indicate that as far as the turkey and deer population are concerned, we are dealing in modern times. The modern fauna was here, and there were some hangovers - enough so that they've got four or five of these bears. This was undoubtedly well into this 6000 B.C. era. I don't know whether we're ever going to be able to use paleontological dating to get much of anywhere.

BYERS:

This is the thing I'm wondering about, because the information that's coming out of Tehuacan indicates a modern fauna in very remote times, but with a few species that are not present in the modern animal population. But those disappear with a shift from a cooler, wetter climate to a dryer climate; these animals move further north to a cooler, wetter climate that they like.

WILLIAMS:

Well, certainly in regard to paleontology, the evidence from a couple of sites bears on this problem. Russell Cave has no extinct fauna as far as I know. But it goes back to a period when there certainly is evidence to suggest some now-extinct forms were indeed extant in the Eastern United States around 9000 ago. Turning from Russell Cave to Stanfield-Worley --

DEJARNETTE:

At Stanfield-Worley there are no extinct forms. The predominant animal, the largest animal, was deer. This statement is based on an analysis that Parmalee made; not on all the material, but a sample from the site. It is a significant finding for that particular period, and this was fairly late in the time period that we're talking about.

WILLIAMS:

We have virtually the same situation with Graham Cave and with the Modoc Rock Shelter.

UNIDENTIFIED:

Perhaps this is why you don't have fluted blades in these caves, because the fluted blades are associated with the larger fauna.

BYERS:

Don't forget the Simonson site. It's got side-notched points with one of the extinct bison.

CARL MILLER:

We do get the elk at Russell Cave.

FAIRBANKS:

At F.S.U. we have a river-bottom find of an elephant pelvis which has been sawed, so we have a partially utilized mammoth bone.

SCHWARTZ:

Steve, I have the feeling that we're moving around sort of aimlessly. Maybe that's because I'm a little foggy this morning; but I wonder if another possible way to approach this matter, since my first trial balloon was shot down, might be to list a series of problems that we're interested in, instead of hitting each problem and then trying to see what information comes to bear on it. Let's see, in a random way, just what are the things we're interested in. Don't try to be critical of them, and don't try to answer every one as we go along.

UNIDENTIFIED:

Well, to bring a new approach to it, it looks like we're dealing with a continuum with more than one mainstream. We have a gradual transition into the Archaic from what we have been calling "Paleo". Was this a sudden change? Is there some sort of break? If it is, it might be linked with a geological or climatic change. This is where the geologists can help us in the form of pollen counts, soil changes, river terraces, changing sea levels, recession of the ice cap, reduction in the rivers springing from the ice and that sort of thing. And if that sudden change can be correlated to geologic or climatic changes, we have a logical point at which to chop off these periods. We're looking for convenient brackets for these cultural things, for evidence to

divide this continuum. These sudden changes (or relatively sudden) are the convenient places to make these changes, but not necessarily at 6000 years. It may be 6000 in Arizona, whereas in Alabama it may be 8000 or 3000. We have to deal with the general semanticist, and we're talking about Paleo-Indian (Alabama) and not mixing him up with Paleo-Indian (Arizona).

WILLIAMS:

On a large scale it is sort of interesting to look across the continent as we sometimes are forced to do by our data, as Doug has pointed out with Bullbrook and the great similarities to the West. We do have to look across wide areas. From Ipswich, Massachusetts, to the Mexican border is a fair hike, yet we have to look in that direction in this time period or we aren't seeing the whole picture.

BYERS:

You must look not from Ipswich, Massachusetts, but from Nova Scotia as well. The geologists are convinced that Nova Scotia was free of ice 15,000 years ago, before the Two Creeks interval and that there was no ice up there at all. I was talking with Dan Livingston who was on the site, and he said he thought probably the forest in Nova Scotia 12,000 years ago was about the same type of forest that is in Nova Scotia at the present time.

SCHWARTZ:

But because of its littoral position you wouldn't generalize from that to the whole North. I mean, maybe this is just local effect of the ocean.

BYERS:

This would take in New England and so forth. It doesn't take in the Great Lakes Basin. Obviously, the information from the Great Lakes Basin contradicts this.

FAIRBANKS:

What was the ice situation in the Great Smokies and the Blue Ridge and so forth? Were there local mountain glaciers during this time period we're talking about? Does anybody know anything about it?

BYERS:

Lucy Brown from the point of view of forests doesn't seem to feel that there was any...

FAIRBANKS:

Then we've got to discard this idea that these rivers draining out of the Appalachians had different flows.

SCHWARTZ:

You mean different flow patterns or greater amount?

FAIRBANKS:

Greater amount.

SCHWARTZ:

If there were a pluvial period, it was of minor proportions so that everything wouldn't have looked like the Northwest coast in terms of rain.

STOLTMAN:

First of all, from the geological evidence with respect to glaciation, there are no ground moraines, or any features that could be glacially deposited in these Appalachian mountains south of the terminal moraines. So the evidence for mountain glaciation, geologically speaking, is non-existent, and we assume that there wasn't any. But with respect to this pluvial period with things like Musk Ox found in the south, I don't think the supposition that there was a pluvial period in the Southeast, like something in Africa, is upheld by the evidence. But rather, it would be more like periglacial conditions. That is, relatively cold; perhaps damp, but not a hot pluvial period - a rainy period in the conventional use of the term. But there must have been, or at least the general supposition is, that these glaciers were tied in with universal eustatic changes in sea level. Therefore, the river bottoms would also be affected. If the sea level dropped, the rate of the river flow would, in fact, speed up, and if the sea level rose, then river drainage would slow down. This change would affect the volume in the valleys and, therefore, the deposition and the whole pattern of settlement along them. You would have to have a geologist to answer this.

As we were talking before about ecological conditions, the idea came to my mind that a good avenue in the Southeast would be to get in paleobotanists, because forest conditions are such that the long leaf pine

could, in fact, be a recent ecological condition. Paleobotanists could tell us, I think, through pollen analysis, whether or not this was really a glacial condition, or post-glacial. Or perhaps the form comes in suddenly as in Europe, for example, where a change in forest type can be tied in with the presence of man. There's a book on Virginia by Jean Gottman, named the Personality of Virginia, wherein he discusses the problems or forestry practices in Virginia. Because of fire prevention practices the pine does not regenerate as fast as it could, and the deciduous forest is beginning to take over in Virginia, causing a real problem. This change he relates to the fire prevention practices which suggests that man could have a tremendous influence on the forest patterns. Paleobotany could really give some answers to us here in the Southeast.

FAIRBANKS:

The trouble in the south Georgia and northwest Florida pine belt at the present time is that there are very extensive bird-shooting plantations where range management people spend more time burning forests than putting out forest fires. They have completely switched from the New England-bred forestry practice of "put out every possible fire you can" to systematic annual burning in order to maintain all these things. Now in a number of other areas in the world, this same kind of long leaf pine forest exists, so it may not altogether be man-caused. Did Fluted-point men use fire drives and so on? These are questions we ought to try to get some answers to.

UNIDENTIFIED:

During the last couple of years, geologists under Flint and Sanders and a few others have been working on the southeast Virginia area getting core samples and also underwater samples out in the ocean, and pollen columns from the Dismal Swamp. They've also got Carbon 14 dates from the bottoms of pollen columns, dating Dismal Swamp about 9000 years ago. In that area, we hope we're going to come up with some answers that will help in the archaeological field. There are not a lot of fluted points from the Dismal Swamp, but enough so we know they were there, and a very heavy Archaic occupation around the borders of the Dismal Swamp, and even inside Dismal Swamp on little hummocks.

SCHWARTZ:

I think we can spend an awful lot of time telling each other what paleobotanists, and geologists, and other specialists could tell us if they would do this work. I believe our job is to say here's the material we've got. Let's look at it. Let's see what it tells us. Let's construct some hypotheses. Then when the other information comes in, we can modify these hypotheses, but we can't always be looking in the future because there will always be unanswered questions.

WILLIAMS:

Turning then to some of the problems as you suggested we might do, what do we think of the hypotheses that have been raised? I know Doug Byers has some thoughts on this. We might discuss the hypothesis that Chuck raised earlier about the temporal relationship between the Eastern fluted materials and that farther west, along with Tom Lewis' hypothesis of the Paleo-Indian move into Tennessee after the Altithermal, as things were drying up on the Plains. You don't feel that's a viable hypothesis now, do you Doug?

BYERS:

The thing I'm thinking about now is Paul Martin's discussion of the Altithermal being a wet period rather than a dry period. And you know his hypothesis is that as the Altithermal came along the monsoon system was perhaps greater, and there was more precipitation rather than less precipitation.

WILLIAMS:

So they came into the forest to keep dry.

BYERS:

There was more grass. This was an optimum climatic period in Arizona and the western Plains and so forth, I wonder what this does to the arid Altithermal hypothesis. I don't think you can hold the hypothesis any longer that people deserted the Southwest and moved over into the East in view of the few radiocarbon dates that we have. I think there was contemporary occupation in both areas.

SCHWARTZ:

On the basis of no evidence I would agree. It seems to be very reasonable.

WILLIAMS:

Is it on the basis of no evidence? Certainly we have the dates from Alabama from Stanfield-Worley suggesting that Dalton types are pretty old. As we have had dates of this magnitude before from other eastern sites, it certainly doesn't allow us to accept the older hypothesis that everything over here is later.

SCHWARTZ:

Unfortunately, I was only being facetious. I accept these dates. Perhaps even more important is the historical factor at work. The first place that a thing is found is so frequently the place where it supposedly came from, at least for a while, until a great deal more is known.

BULLEN:

Aren't there more fluted points known east of the Mississippi than west of the Mississippi? I don't see any necessity for priority out West.

SCHWARTZ:

They've older reports out there.

BYERS:

Remember the old theory was that fluted points were left by people migrating down the face of the Rockies, along the edge of perennial water down the of the Rockies, and how that's gone out the window.

SCHWARTZ:

Well, Steve, there's some progress made, by God.

WILLIAMS:

Another thing we could put on record, and I think this is the sort of thing that one could say to geologists, the thing we all know - just what Doug and Rip were saying - isn't it true that there are more fluted

points here in the East than in the West? I think this will come as a great surprise to most Pleistocene geologists. You can't help to be overwhelmed, if you're a geologist, by the Western reports which have a lot more geology in them. They're the things which come to your notice, things like Lindenmeier and Finley and other sites. I'm sure most geologists are pretty ignorant of the fact that we have a thousand fluted points from Ohio. That's a pretty impressive figure, and certainly as was brought out yesterday, we haven't really covered the ground even in what's already in collections in the Southeast. Certainly there must be thousands more here to indicate a pretty heavy occupation.

SCHWARTZ:

If Prufer keeps working in Ohio the way he is now, we're liable to have more fluted points in Ohio than west of the Mississippi.

WAUCHOPE:

Since this is the first specific problem we've actually defined and placed as a specific problem, could we now stop and list what we consider the type of evidence we need to determine to eliminate this one problem. Are we going to go by numbers of points as evidence? What do we need from the geologists on this? What kind of evidence do we generally bring to bear on this?

WILLIAMS:

Certainly I think we have to recognize that there are all sorts of pitfalls within the kind of distributional studies which are to be part of our paper, and I think we recognize this in terms of the very nature of the data. In a distributional study it may look very reasonable on a county-wide basis that you don't have any fluted points from certain hilly, mountainous areas in the Southeast. Yet how strong a reflection is that of the cultural reality, and how strong a reflection is it of the fact that these are just the areas that are going to be collected less? So I think we have to exercise caution in making this kind of hypothesis. Similarly we have to look carefully at the kind of data that Woody Gagliano was presenting yesterday, on those beautiful colored maps, to show a distribution that indicates there are no early projectile points in the

southern part of Louisiana. I think Woody would agree that this is a reflection of the fact that the surfaces that are old enough to have fluted points on them in South Louisiana aren't available to us.

I don't think we can say that people using Clovis points stayed away from the seashore. In fact, I think that's one of the things that certainly Nova Scotia, Bullbrook, and some of these South Carolina and Virginia sites indicate that they did. They are located right near the shore where they were throwing the points at passing whales or something! So I think we have to be very careful to recognize these limits of our data; this is just one problem that comes to mind.

SCHWARTZ:

I thought the kind of thing you were after was: First, the actual presence of this material in the East that was originally found out West, and the hypothesis that was developed on the basis of its' distribution in the West. The actual presence of fluted points in the West allows us to construct an alternative hypothesis which Lewis did. Second, would be the beginning of some understanding of time depth. We can't make much progress here until we have a few dates that give us some clue to the age and some comparability. We have some dates now, not as many as we'd like, but nevertheless, something. So, (1) presence, and (2) dates. Third, we need, as we all know, association with extinct fauna. If we find that evidence in the East, it would strengthen the hypothesis. There's also, and I guess we could call this evidence, the assumption that the kinds of animals that these people were hunting in the West were also present in the East.

WILLIAMS:

At the right time we certainly know that mammoth and mastodon were here in the East.

SCHWARTZ:

Yes, but it seems to me that in the early period when the hypothesis was being constructed around the Western core of Paleo-Indian data, it was assumed that there were roaming herds of mammoths in the West, and the East wasn't the kind of place which might have fostered this kind of animal. So we have the assumption

that this difference might have been the case. The testing of this hypothesis and the finding of these animals in association with fluted points in the East would be another bit of evidence that would add support to the new alternative.

LEWIS LARSON:

I want to ask a question. Is my impression correct that in the West it is, mammoths, by and large, with which these fluted points are associated? Do we have mammoths in the East, or are they mastodons?

SCHWARTZ:

We don't have any association of Paleo-Indian with Mastodon.

WILLIAMS:

But there were mammoths wandering around the countryside.

LARSON:

Are these two beasts different? The mastodons are browsers, aren't they, and the mammoths are grazers?

WILLIAMS:

That's what some paleontologists think; but this is an hypothesis too.

LARSON:

I just thought of one animal as being adapted to a forest environment, and the other one to grassland.

WILLIAMS:

That's a nice simple hypothesis, and is one to which many paleontologists would agree, just by looking at the teeth of the two animals.

SCHWARTZ:

Yes, but of course calling the hypothesis "simple" doesn't mean it is any less valid.

WILLIAMS:

I think that we can deal with some other problems along the way. One of those has to do with typology. I don't think that in ten minutes we can solve the typological problems of the Paleo-Indian Era - or Early Period, or "Pre-6000 B.C. Period". But it would be useful for us to discuss briefly some of the entities that we are at present utilizing in the Southeast. I think all of you know that more has been done on the typology of this time period by Dave DeJarnette and his associates at Alabama than by anyone else. I think it would be useful if he would tell us some of his present ideas on this subject. I was just looking at a diagram he has; a nice tree of culture with Dalton points radiating out, and changing and giving their side notches to Big Sandy and things like that.

DEJARNETTE:

Well, I think you've just about covered it. I think we are pretty well in agreement that Clovis is the oldest, aren't we? So we start with Clovis, and, as Mason suggested in his article, you have the development of Folsom out of Clovis in the West. I think we would have a parallel development in the East of Cumberland out of Clovis. Actually we can really line up types which stylistically would run from Clovis into Cumberland. I have one now that was sent in to me that you can't type as either Clovis or Cumberland. I think this is good; I think this shows a developmental form. Then we have a development from Cumberland into Beaver Lake - Beaver Lake is a type name given to our unfluted Cumberland. With this change from Clovis into the unfluted variety (Beaver Lake) the points maintain ground edges, ground bases, and basal thinning. Then one can see a development from this into Quad, and into Dalton. The restricted area of the point, the hafting area on the Dalton, you still get basal thinning. Ultimately this restricted area becomes more pronounced, until you actually have a form of side notching.

There is then a development into the side notches as in the Big Sandy point. The Big Sandy point is of the same time period and is culturally related to the Dalton. This situation we found at Stanfield-Worley, of course. From that, we go into Early Archaic types, the non-Shell Mound Archaic. And then later into the bigger stemmed types of the Shell Mound Archaic. That briefly is the picture that we have put together.

WILLIAMS:

That's a very neat picture. As we all know, every model proves the point that the person setting up the model intends to prove, but I don't think that should lead us to say we shouldn't set up this model. Until we know more about it, it's as good as we have.

DEJARNETTE:

I do think we have some suggestions that Cumberland is more closely related to Dalton and to those intermediate types in that range than the relationship between Clovis and Cumberland. It seems to be a bigger gap. Now we're basing this on just one site that we dug the summer before last. We put a test down then and this past summer we dug another test there. We found four fragments of fluted points, midsections and distal ends. Three of these we were able to type just stylistically from the thickness and the broadness as being Cumberland. These were in a very close association in the lower levels. There was a fill over the rocks and it was pretty hard to ascertain a stratigraphic relationship between two trenches, because we didn't have a built-in condition as at the Stanfield-Worley site where the lower levels were covered with a silt-like deposit. It was not sealed in. But you did have these Cumberlands occurring in the deeper levels of this particular site. You have Cumberland, then you have Quads, and you have Daltons. They are pretty much in the deeper levels and well below the pottery level. Pottery played out about 16 inches, and then those levels would represent the 32-43 inches portion of the deposit. The early Archaic forms are pretty much in the lower levels too. So there is a closer relationship of the Dalton to the Early Archaic than to the Late Archaic forms.

WILLIAMS:

Continuing with some problems, there are two that appear to me. One of them is the Redstone point that you have on your chart. I think you were saying upstairs that it is a problem. Would you like to say something on it since maybe some people don't know what a Redstone is.

DEJARNETTE:

The Redstone is a triangular fluted form. And there is the Wheeler point which is also a triangular form, but which is sometimes fluted and sometimes not.

Probably we can show a relationship between them. How it's tied in to Clovis, I don't know. Now up in Pennsylvania, what is the triangular form called? Enterline?

STOLTMAN:

They don't give a specific type name to the triangular. It does occur at the Shoop site, however.

WILLIAMS:

Doug Byers, have you seen the Redstone point? I was struck while looking at it by what you were saying before about Lindenmeier. It seemed to me that there were one or two points at Lindenmeier that might fit into this general category.

BYERS:

I think so too.

WILLIAMS:

The other problem is this Wheeler point which has been set up in types I, II, III, with incurvate, excurvate, recurvate base by Madeleine and Tom Lewis: Wheeler I, II, III. We see again variations on a general form. Is Wheeler a common type?

DEJARNETTE:

It is pretty well restricted to the area within the Wheeler Basin. I think we got one in Stanfield-Worley. It was associated there with Daltons. It was not fluted, and at Stanfield-Worley we got three of the non-fluted Cumberlands, the ones we're calling Beaver Lake.

WILLIAMS:

Doug, what do you think about Beaver Lake?

SCHWARTZ:

I was just telling them, I don't believe we really looked for them. We had some unfluted Clovis that we were a little concerned about, but we didn't have enough of them to really do much with them.

DEJARNETTE:

He said he didn't recognize the type, and I didn't interpret it properly. He didn't recognize it, because he was not looking for it. It doesn't mean that he disagreed with the classification.

WILLIAMS:

I put on the list a couple of really aberrant things. I guess you all know that there are a couple of points from the Southeast that have been called Sandia. They're from Tennessee, I believe.

DEJARNETTE:

There is one from Alabama again, from the Kline site. I don't think we are going along with that name. This is a one shoulder point. I don't know, it may be a valid form. We dug the Kline site the summer before last. It was interesting because it was an Early Archaic site, earlier than Shell Mound. This, of course, is going to add a great deal of light to this whole problem as soon as we get the report on finding these early non-Shell Mound Archaic types. But again, this so-called Sandia and the fluted material that comes from this site were surface finds. We didn't find anything below our Early Archaic. It would be just an accident, I think to find this kind of point in site.

I don't think you're going to gain very much by digging these open sites where you do find a great deal of fluted material. I think our only chance really to work this problem out will be to work in shelters or caves where this situation in itself would tend to concentrate a group into that particular area. This would be the only way to solve it stratigraphically.

WILLIAMS:

The only reason I threw in Sandia is that Marie Worthington, in her American Scientist article, set up this very hypothetical sequence for projectile points in the New World. One of the links in the chain is, of course, Sandia. Most of us are aware of the weakness of that link even in its classic form in the West.

As far as real Western types occurring in the Southeast, there was some mention by Clarence Webb of what he would actually consider Folsom points or very Folsom-like points in Louisiana. Of course, we all know the problem that came about in the thirties when everything having a flute on it was being called a Folsom.

I think we all realize the Folsom, the classic Folsom type, is one that has rather specific characteristics, although as Doug pointed out this morning, it is not the majority point from Lindenmeier. Are there any other fluted points in the Southeast that would have to be typologically called classic Folsom?

DEJARNETTE:

I've never seen any. I'll tell you it is sometimes a little bit confusing when we get a short type. I think I saw some yesterday. Woody had some and I believe, Col. Lazarus, you had some. Is there a possibility that some of these would be reworked? I think this is what we find in the Tennessee Valley - reworked Clovis points. You get a flute that goes down practically to the tip of the point. Now, I don't know too much about reworking. I can't look at a point and say it is reworked. But we have got some people that say they can do it. They can do this under a high-powered glass and determine that this littleflaking and reworking which would cut across the original transverse flaking, and thus determine that these would be reworked Clovis points which would produce the shorter-stubbier point. Sometimes these points have pretty much the appearance of the classic Folsom where the flute goes all the way down to the tip. But yet they never have the very sharp ears. They never have the obvious platform which is, I think, pretty much characteristic of the Folsom.

WEBB:

There are a few of these in northern Louisiana that I mentioned which do not appear to be reworked at all, and occasionally there's at least a suggestion of a platform tip within the concavity. I sent a couple of these to Wormington, and she was satisfied that these were pretty good Folsom.

DEJARNETTE:

That's good to know. I don't see any reason why you shouldn't have them.

WILLIAMS:

I think a point made in Pete Gregory's and Woody Gagliano's paper yesterday that was interesting to me was that apparently you do get an extension of certain Plains types into western Louisiana. This is not strange as Dave has just pointed out. Yesterday we asked some general questions about other materials that fit into the Plainview and related types. I think this leads us to the lanceolate forms that have recently been described by Profer from the McConnell site in Ohio. Do you have that form in Kentucky?

SCHWARTZ:

Yes, small numbers, but they're present.

WILLIAMS:

What about the distribution further south? (No answer) I wonder if we could make some general statement about the distribution of Daltons? It seems to me, just as an idea, that when we look at the distribution of Daltons, we see them petering off down toward the coast with certainly the heaviest concentration coming across the middle of the Southeast. This is just an impression, and I hope you'll give me a correction. Of course, we get the classic area in central Missouri, as Dick Marshall told us yesterday. They are common throughout that section of the Midwest. You get great quantities in the Lower Mississippi Valley, and east across Kentucky, I think.

SCHWARTZ:

No. Let's make this one correction. We have a pretty definite cut-off line in the northeastern part of Kentucky where it doesn't occur.

WILLIAMS:

Certainly, Daltons do not seem to be a common form in Ohio. They seem to be staying south.

DEJARNETTE:

We're getting them farther south now than the Tennessee Valley. We're getting them on the Wateree River and I think they've been reported from the Chatahoochee area. We were also able to recognize some of these in the Florida material; I think Col. Lazarus has some very good Daltons.

A.R. KELLY:

We have been making a study on typological ground of the very nice collection at the University of Georgia of close to 70,000 projectiles. The former superintendent of schools at Athens, Georgia, has over a twenty-year period gathered them from the surface within a range of 50 to 60 miles of Athens in northeast Georgia. This surface collection which was an idea of his own, has very definite limitations, because he didn't normally pick up pottery off the sites. He was, I believe, mainly interested in the aesthetic qualities of stone. Now this is a very large collection from a relatively restricted area of northeast Georgia - five or six counties.

From a purely typological point of view, I feel it has value simply to know that those types do occur in certain strength within that restricted range, so we're going to put them out on that basis. What we're doing is typing them on key diagnostic traits which we've used on all these classifications. Now talking about Daltons - it is apparent that it is a very large complement of points in this collection which are Daltons. We could lose them in a collection from Stanfield-Worley. Northeast Georgia would therefore be an extension south and southeast of this particular aspect. I don't see that it matters too much whether they come from one or from six counties that are contingent. We have 159 counties in Georgia. Just go a few miles and boundaries don't mean too much. This man never acquired any material from anywhere else.

SCHWARTZ:

How far north along the coast do they get?

WILLIAMS:

I think the North Carolina contingent has left, but does anyone have the information of the distribution as it goes north on the coast? They certainly are played out by the time you get to New Jersey. Don't you think so, Doug?

BYERS:

I haven't seen any from up that way.

DEJARNETTE:

In terms of the history of Dalton points there's an arrow on the chart from Dalton up to Meserve. That doesn't indicate that they moved in that direction, although stylistically we do see a development here, but in Nebraska they have evidently a development out of the Plainview. This is confusing, and actually I think some of the Daltons Wormington reported were really remade Plainveivs. So, there again you've got a problem.

SCHWARTZ:

You think it's confusing because they have it growing out of one stem, and you have it out of another.

DEJARNETTE:

Yes, but I didn't mean that the arrow should indicate that it was that path we were trying to push from east to west.

The only two dates that we have now on Dalton in the Southeast are pretty much of the same time range. Marshall gave us Daltons in Missouri, and that date was 9700 B.P. and out date at Stanfield-Worley is 9640 B.P., pretty much the same time range.

WILLIAMS:

I don't feel that I can, at this point, summarize the Conference. I've seen people attempt it. I still remember Bob Wauchope's attempt at the end of the Moundville meeting. I think in respect to summarizing, that was a wonderful effort, in a great cause. But having seen others try it, I'll not try to enter the lists myself. It's hard, therefore, not to let a conference end on a slightly downhill note. It's even more difficult to whip up to some wonderful crescendo of disagreement or agreement.

I will say that I thank you all for providing the information that you have. I'm going to be coming back to some of you for more particular data in the months ahead when I prepare this paper with the aid of Jim Stoltman, who fortunately knows more geology than I do. Perhaps we can try to run down some of these geological problems that have been suggested here as being worthwhile to look into by various members of the conference. I will certainly, as I stated in my original letter to the Conference members, give due credit that the members deserve for their help in providing not only distributional data, but many ideas as well. For that I am grateful to all of you.

SOUTH CAROLINA FLUTED POINTS

by

Eugene G. Waddell

Eight fluted points from South Carolina have been described in the literature: four by Robert Wauchope (1939: 344-6) and four by Antonio J. Waring (1961: 550-2). The following is a summation of the information contained in their articles and a description of ten additional points.

Two of the points described by Wauchope were found west of Columbia in Lexington County on a flat divide between the Congaree River and a tributary (fig. 1 e). One is made of dark grey flint and the other of a type of chert. Neither variety of stone is native to South Carolina (Wauchope 1939: 345). The other two points described by Wauchope were in the Babcock Collection at the University of South Carolina Library. This collection has recently been studied by Thomas G. Hiers of Florence, and he was unable to relocate either point. From the small percentage of labelled artifacts in the collection, it could be ascertained only that the fluted points were probably found within a fifty mile radius of Chester, South Carolina.

The four points described by Waring are all from the lower South Carolina coast. Three were found on Myrtle Island, Beaufort County, at the foot of an eroded bluff on the May River (fig. 1 k). Myrtle Island is separated from the mainland by intertidal marsh; it was probably part of the mainland at the time of its Lithic occupation (Fairbridge 1960: 76). The fourth point was found in Jasper County (fig. 1 j) on "a low clay knoll overlooking tidal salt marsh approximately three miles east of Coosawhatchie" (Waring 1961: 551). All four points are made of a variety of chert which was apparently obtained in the Briar and Buckhead creeks region within the Savannah River drainage basin.

The ten new fluted points appear in figs. 2-4. Measurements of these points are given in Table 1. The number and length of flutes are not given for any point, because the number of attempts at fluting seems to be dependent as much upon the material employed as upon the ability of the craftsman.

There are four fluted points in the South Carolina Ceramic Repository at the Charleston Museum. Two points (figs. 2 a and b) were found by William Harry Wylie and were donated to the Museum in 1942 by his daughter, Jean Wylie Faulkner of Charleston. Both points were found on the western bank of the Catawba River, York County, at the construction site of the Wylie Lake power dam (fig. 1 a). The Museum's designation for this site is SC:YO:4, and the Museum numbers for these points are ChM 42.74.9 m, n. Sixty-eight additional projectile points and several dozen miscellaneous artifacts (including historic trade beads) were found

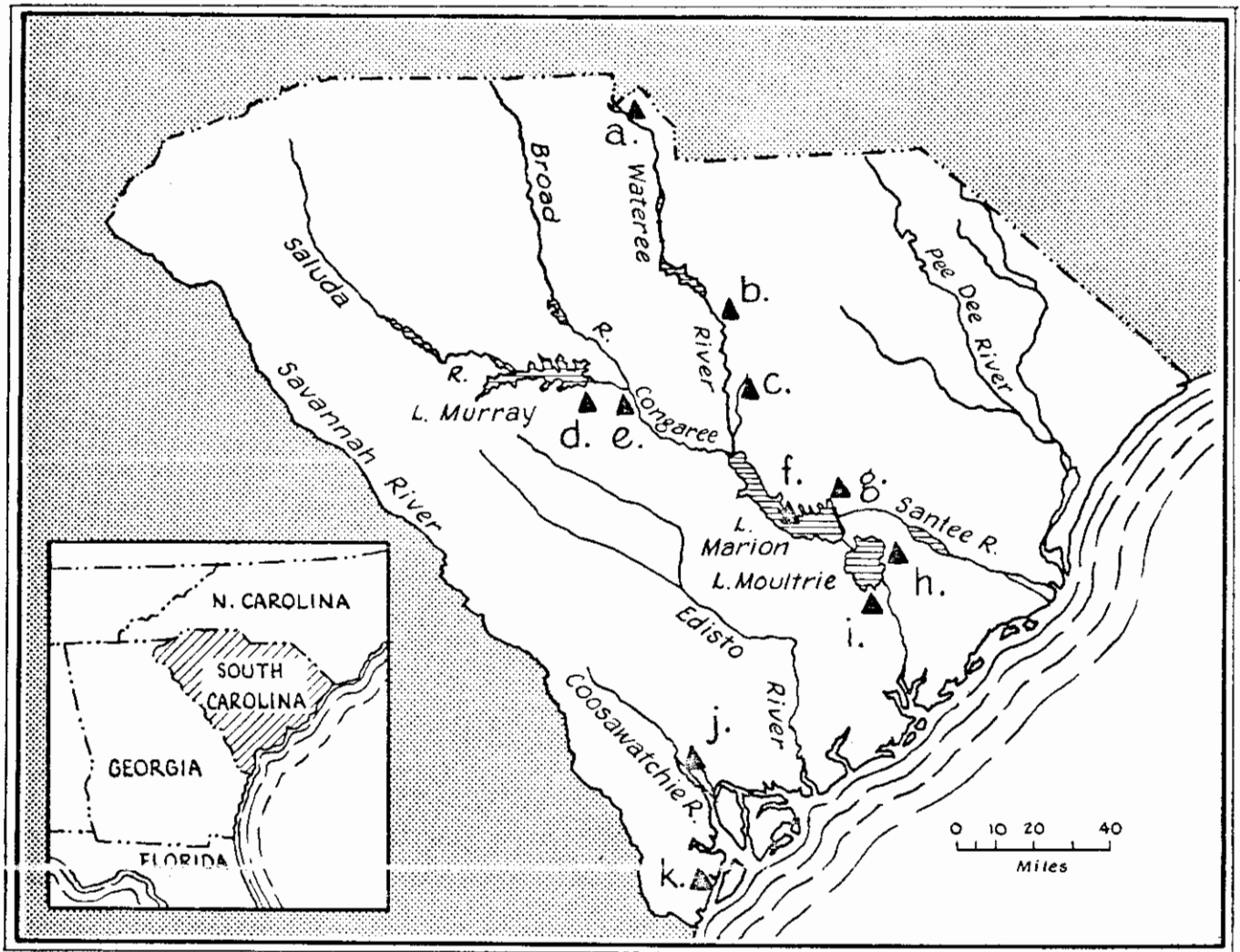
at this site. None of these other artifacts are made of material similar to that of either fluted point, one being of black flint and the other of banded quartz. George D. Shore, Jr., of Sumter collected the point, figured as 2 c, and donated it to the Museum in 1935. This point, Charleston Museum number ChM 35.201, was found at Statesburg, Sumter County, on a bluff overlooking the Wateree Swamp (fig. 1 c). It is made of dark grey flint. The fourth point in the Museum's collection (fig. 2 d, ChM 6407) was donated by Mrs. St. James Cummings in 1912. It was found at Green Hill Plantation on the Wateree River below Camden in Ker-shaw County (fig. 1 b, SC: KE: 1). It is also made of flint.

The collection of Robert S. Lefaye, Jr., of Columbia, contains two South Carolina fluted points (figs. 3 a and 4 a). Both of these points are made of chert similar to that from the Briar and Buckhead creeks region. Fig. 4 a was found in a ploughed field near a small creek on the R. H. Buff farm, north of Lexington, Lexington County (fig. 1 d). The fluting on either side of this point is prevented from being larger by minute quartz inclusions. Fig. 3 a was purchased from the C. A. Parks collection. It was found within the Cooper River drainage basin near Moncks Corner. (fig. 1 i)

Two fluted points, figs. 3 b and 4 b, are in the collection of Richard D. Pocher of Pinopolis. Fig. 3 b was found by the shore of man-made Lake Moultrie on Porchee Plantation near Bonney Beach (fig. 1 h). The other point (fig. 4 b) is from Eady Island, several hundred yards to the north. These two points are very dissimilar, in material as well as proportion: the Porchee Plantation point is made of chert and the Eady Island point is of black flint. Fluting was attempted only on one side of the point from Eady Island.

The remaining two points to be described (figs. 3 c and d) were collected by Donald M. Mackintosh of McClellanville. They were found on the northern shore of Lake Marion at sites approximately six miles apart. Fig. 3 c was found at the Prince's Pond Site (fig. 1 f) below a twenty foot bluff. It is made of chert. Fig. 3 d was found in a ploughed field west of Camp Henry Schelor (fig. 1 g). Even though this point is made of shale, the fluting was fairly successful.

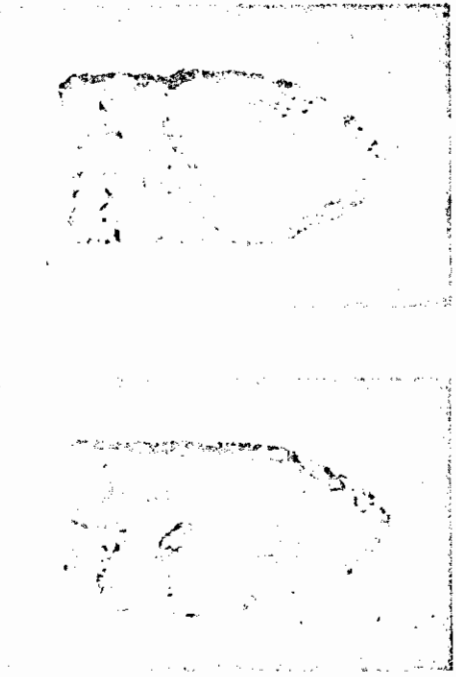
In the following summary the points originally in the Babcock Collection are not considered. Nine of the remaining sixteen points were found within in Santee River drainage basin, but no more than three points have been found at any single site. The sites producing the points have a randomly clumped distribution within the State. Nine of these sixteen points were made of chert which was probably obtained south of the Savannah River in the Briar and Backhead creeks region. Five others were made of a dark grey or black flint which is not known to occur in South Carolina. Its source may be Ohio. Banded quartz and shale occur in South Carolina, but the exact source of the single points made of each is not known.



- | | |
|--------------------------|-----------------------|
| a. Wylie Lake | g. Camp Schelor |
| b. Green Hill Plantation | h. Porchee Plantation |
| c. Statesburg | i. Moncks Corner |
| d. Buff | j. Coosawatchie |
| e. West Columbia | k. Myrtle Island |
| f. Prince's Pond | |

Figure 1.

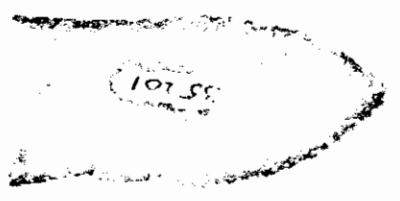
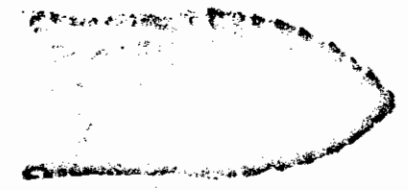
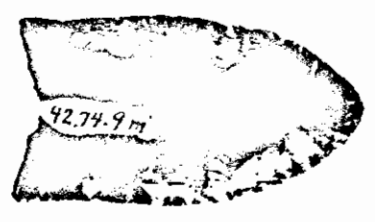
Sites in South Carolina where fluted points have been found.



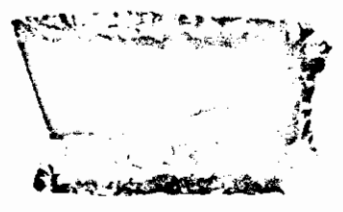
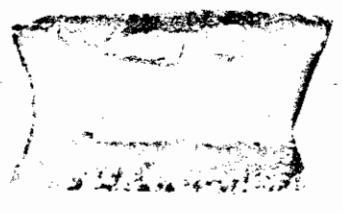
a. Wylie Lake



b. Wylie Lake



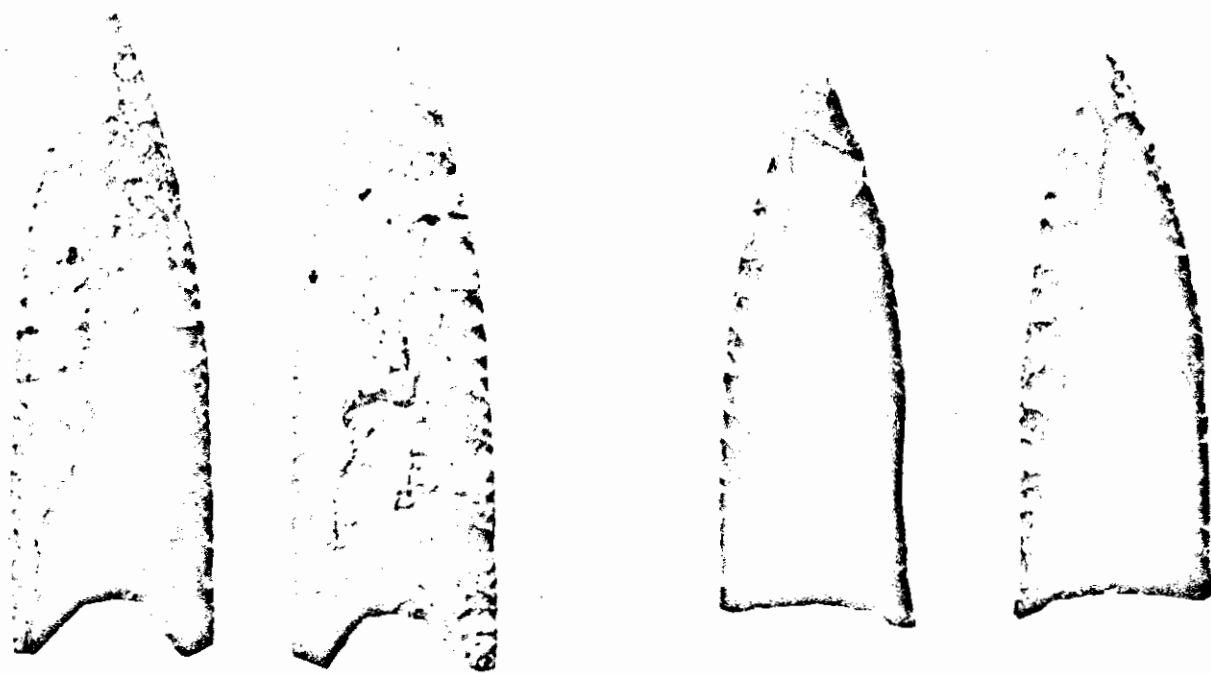
c. Statesburg



d. Green Hill Plantation

FIGURE 2.

FIGURE 4.



a. Buff Farm

b. Eady Island

Fig.	max. length	width (1)				thickness(2)			basal grinding	weight
		a.	b.	c.	d.	a.	b.	(3)		
2 a.	4.3	2.3	2.4	2.2	---	0.6	2.7	0.1	-----	8.01 +
2 b.	4.6	2.6	2.0	2.5	2.4	0.6	2.4	0.4	2.7, 2.7	9.42
2 c.	5.1	2.3	2.3	2.3	2.1	0.7	3.2	0.4	2.2, 2.4	10.08
2 d.	4.4+	2.5	2.8	2.2	---	0.6	2.9	0.3	2.6, 2.8	9.26 +
3 a.	5.4	2.8	2.7	2.6	2.5	0.9	3.7	0.2	3.0 ⁺ , 3.5	14.30+
3 b.	4.8	2.3	2.2	2.4	---	0.8	2.9	0.5	2.2, 2.4	9.42
3 c.	4.1	2.4	2.4	1.5	---	1.0	2.5	0.1	2.7, 2.6	9.17
3 d.	5.0+	2.3	2.4	?	?	0.8	3.0	0.2+	2.4 ⁺ , 2.4 ⁺	9.02+
4 a.	8.5+	3.7	2.6+	?	?	0.6	3.9+	0.7+	3.9 ⁺ , 3.5+	21.89+
4 b.	7.3	2.5	2.5	2.8	---	0.6	5.0	0.2	2.4, 3.0	15.16

All dimensions in centimeters and all weights in grams.

1 - Width
 a. max. at shoulder
 b. distance of "1 a" from base
 c. max. at base
 d. min. between shoulder and base

2 - Thickness
 a. maximum
 b. distance of max. thickness from base

3 - Maximum basal concavity

TABLE 1.

All of the new points described here have a thickened forepart; attempts at fluting were made on both sides of all but one (fig. 4 b - also the only point which is not widest at the shoulder); and only one is not basally ground (fig. 3 c).

ACKNOWLEDGEMENTS--Donald M. Mackintosh kindly furnished the accompanying photographs and Laura M. Brass indentified the materials from which the points were made.

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POTTERY TYPES OF THE MOUNDVILLE PHASE

by Douglas Hugh McKenzie

Introduction

The six indigenous pottery types of the Moundville phase, Alabama, are described in this paper. These are designated as Warrior Plain, Moundville Black Filmed, Moundville Filmed Engraved, Moundville Engraved-Indented, Moundville Filmed Incised, and Moundville Incised. Although Warrior Plain has been described in some detail (DeJarnette and Wimberly 1941: 82-83), other published type descriptions have been brief, and one type, Moundville Engraved-Indented, is here defined for the first time. However, these types are probably unofficially recognized by Southeastern archaeologists.

The Moundville phase is the Mississippian occupation of northern and western Alabama, centering at the site of Moundville, on the Black Warrior River 15 miles south of Tuscaloosa. It is considered to have originated as a site-unit intrusion from northeast Arkansas about A.D. 1250. The phase terminated by about 1500, but elements of the population and some cultural traits were undoubtedly reintegrated into the historic Muskogean tribes, possibly the little-known Napochi, the Alabama, and the Koasati (McKenzie 1964).

The following type descriptions are unusual in that they are based largely on whole vessels rather than sherds. A total of 404 vessels was available. The majority was associated with burials, so that this sample emphasizes ceremonial rather than utilitarian types. About 35% was Moundville Black Filmed and 35% Moundville Filmed Engraved. The remaining 30% was composed of the other four types, none of which were represented by more than 10% of the total sample.

In addition, from 100 to 400 sherds of each type were studied out of a sample of over 97,000 sherds (81.4% plain) classified by Wimberly (1956:18-20). The sherd sample did not reveal any new attributes not present in the whole-vessel sample. Measurements of thickness were made only from the sherd sample.

In the general excavations 529 red-filmed sherds were found (Wimberly 1956: 19). The relatively high frequency suggests that red-filmed pottery may have been made at Moundville, but because of the rarity of unbroken red-filmed vessels this sample was considered inadequate for a formal type description. Other kinds of pottery such as white filmed, red-and-white, and negative painted were extremely uncommon and almost certainly reached Moundville through trade.

Type Descriptions

WARRIOR PLAIN (for illustrations see Moore 1905, Figs. 49, 50, 55)

PREVIOUS DESCRIPTION: DeJarnette and Wimberly 1941: 82-83. The

present description expands and slightly modifies that of DeJarnette and Wimberly.

PASTE:

Method of Manufacture: Coiled

Temper: Angular flakes of shell 1 to 5 mm. in greatest dimension, larger in the larger vessels.

Texture: Rather coarse and contorted, especially in larger vessels. Finer in small jars and bowls.

Color: Light to dark gray, buff, reddish-brown to shades of light red or pink. Core is usually dark gray but may be buff or reddish-brown.

SURFACE FINISH: Smoothed. Striations left by the smoothing instrument are often visible.

FORM: Most commonly jars; also hemispherical bowls.

Rim: On jars, straight and flaring or recurved, mean height 20.5 mm. On bowls, a notched applique rim strip is often added below the lip.

Lip: Unthickened, rounded or slightly flattened.

Body: Small jars with flattened-globular body and vaguely defined shoulder, mean height (including rim) 105.8 mm., mean maximum diameter 133.7 mm. Hemispherical bowls with rounded body, mean height 52.7 mm., mean maximum diameter 118.3 mm.

Base: Continuous with curve of body but slightly flattened.

Thickness: Mean 6.6 mm., range 4-11 mm.

Appendages: Strap handles from lip to shoulder, sometimes rising to a point above the lip. There are usually 1 or 2 pairs, rarely 3, 4, and up to 17 pairs. Handles are frequently decorated with small appliqué nodes.

GEOGRAPHICAL RANGE: The region around Moundville. Reported from the Bessemer site near Birmingham (DeJarnette and Wimberly 1941: 82-83) and probably present along the Tennessee River (see Webb and DeJarnette 1942, Plates 121[3] and 122[1]). The exact range cannot be determined because this type intergrades with other Mississippian plain types to the north and west.

CHRONOLOGICAL RANGE: The period ca. 1250-1500 or part thereof.

PROBABLE RELATIONSHIPS: Macroscopically indistinguishable from Mississippian utilitarian pottery such as Neeley's Ferry Plain.

MOUNDVILLE BLACK FILMED (for illustrations see Moore 1905, Figs. 100, 128; 1907, Fig. 23)

PREVIOUS DESCRIPTIONS: DeJarnette and Wimberly 1941: 83-84 ("Moundville Filmed"); Heimlich 1952: 28-32).

PASTE:

Method of Manufacture: Coiled.

Temper: Angular particles of shell not over 3 mm. in greatest dimension and usually smaller.

Texture: Fine; paste is not contorted or laminated.

Color: Surface color where black film has worn off ranges from dark to

light gray but may be buff or reddish-brown.

SURFACE FINISH: Well smoothed. After smoothing vessels were fired and then entirely covered with a thin, black, organic wash, which does not penetrate appreciably into the paste. Interior of deep vessels was not filmed. No brush strokes are evident. After filming vessels were refired and polished to a high gloss.

Composition of the wash and technique of application were determined by Matson in laboratory tests based on samples from the Guntersville Basin (Heimlich 1952: 29-32).

FORM: In descending order of frequency: bottles, beaker-bowls, hemispherical bowls, jars. Also occasionally seed jars, composite silhouette bowls, composite vessels, castellated bowls, fish, frog, human, shell effigy bottles and bowls.

Rim: On jars, straight and flaring or recurved, mean height 21.5 mm.

On bowls a notched appliqué rim strip is often added below the lip.

Composite-silhouette bowls have a straight, slightly flaring rim.

Lip: Unthickened, rounded or slightly flattened.

Body: Small jars with flattened-globular body and vaguely defined shoulder, mean height (including rim) 106.5 mm., mean maximum diameter 145.7 mm. Rounded hemispherical bowls and straight-sided beaker bowls, mean height 76.9 mm., mean maximum diameter 161.9 mm.

Bottles with flattened-globular or elongated body, mean body height 92.7 mm., mean maximum diameter 137.7 mm., mean neck height 42.5 mm., mean exterior diameter at lip 74.6 mm. Bottles occasionally have a sharp shoulder low on the body.

Base: On jars, continuous with curve of body but slightly flattened.

On hemispherical bowls, rounded. On beaker-bowls, flat, meeting body walls at an obtuse angle. On bottles, continuous with curve of body but slightly flattened. A few bottles have a low, hollow, flat pedestal base.

All bases are unthickened.

Thickness: Mean 5.8 mm., range 3-10 mm.

Appendages: One to 3 paired strap handles - rarely more - from lip to shoulder of jars. On bowls effigy heads representing stylized birds, animals, and humans extend upward from the lip. A flat, horizontal "tail" usually extends outward from the lip opposite the effigy head. Sometimes the tail alone is found without a head opposite.

GEOGRAPHICAL RANGE: Centered at Moundville. Reported from Bessemer (DeJarnette and Wimberly 1941: 83-84), the Pickwick Basin (Webb and DeJarnette 1942, Plates 118 [1, left] and 125 [1]) and the Guntersville Basin (Heimlich 1952: 29-32). Scattered occurrences have been noted throughout southern Alabama and along the northern Gulf Coast (e. g., Wimberly 1960: 184-195) as far west as the Louisiana delta (McIntire 1958, esp. Plates 9b, 13).

CHRONOLOGICAL RANGE: The period ca. 1250-1500 or part thereof.

PROBABLE RELATIONSHIPS: Bell Plain of the Lower Mississippi Valley seems to be the most closely related type, although its surface color is naturally black and rarely produced by filming (Phillips, Ford, and Griffin 1951: 122, 126). The bottle and hemispherical bowl forms are identical with typical Walls and Nodena phase forms. All Moundville

Black Filmed effigy vessels have their counterparts in the Memphis and St. Francis subareas of the Lower Mississippi Valley.

The black negative painting of the Tennessee-Cumberland area could conceivably be related, although vessel forms are dissimilar. Etowah Polished Black, a sand tempered type from the Etowah period (Sears 1958: 191-192), may also have some relationship.

The idea of black painting was presumably derived ultimately from the Huasteca or the Southwest or both, but direct influence from these areas on the Moundville phase is highly unlikely.

MOUNDEVILLE FILMED ENGRAVED (for illustrations see Moore 1905, Figs. 20, 35, 62; 1907, Figs. 41, 68)

PREVIOUS DESCRIPTION: Willey 1949: 466 ('Moundville Engraved').

PASTE: Same as Moundville Black Filmed.

SURFACE FINISH: Same as Moundville Black Filmed.

DECORATION:

Techniques: Fire-line engraving definitely done after filming and firing. Engraved lines are usually less than 2 mm. wide.
 Designs: Typical are complex, multi-line meanders and interlocked scrolls, usually running continuously around the body of bottles. These motifs are commonly bordered by finely cross-hatched triangles or by cross-hatched areas filling the space within the "peninsulas" formed by the meanders. Concentric circles, overlapping concentric arcs, and cross-hatched bands also occur. Herringbone and zig-zag patterns are rare. The design on bottles tends to cover the entire vessel body excepting the base and neck.

On bowls design is simpler. The predominant motif consists of from three to 8 parallel lines encircling the vessel below the lip; paired festoons frequently are appended to these lines. Scrolls and meanders, concentric circles, arcs, and cross-hatched triangles are present but uncommon. Interior engraving is rare.

Southeastern Ceremonial Complex motifs, particularly the sun circle, skull-and-longbones, woodpecker, and feathered serpent are often depicted on bottles. Technique and style of design is the same as that of the abstract (non-"Cult") motifs.

FORM: Exclusively bottles and bowls, including conical and cylindrical bottles and pedestalled bowls.

Rim: On bowls, a notched appliqué rim strip is commonly added below the lip.

Lip: Unthickened, rounded or slightly flattened.

Body: Small bottles with flattened-globular or elongated body, sometimes with a low, sharp shoulder. Mean body height is 91.0 mm., mean maximum diameter 146.9 mm., mean neck height 44.5 mm., mean exterior diameter at lip 82.5 mm. Bowls are straight-sided beaker-bowls with a minority of hemispherical bowls. Mean height is 71.4 mm., mean

maximum diameter 124.5 mm.

Base: On bottles and hemispherical bowls, continuous with curve of body but slightly flattened. On beaker bowls, flat, meeting the body wall at an obtuse angle. A few bottles have a low, hollow pedestal base, and pedestals are found (rarely) on jars. All bases are unthickened.

Thickness: Mean 5.3 mm., range 3-8 mm.

Appendages: On bowls effigy heads representing birds, animals, and humans extend upward from the lip. A flat, horizontal "tail" usually extends outward from the lip opposite the head. Some times the tail is found alone without a head opposite.

GEOGRAPHICAL RANGE: Centered at Moundville. Extends through northern Alabama to the Tennessee River and east to Bessemer (Webb and DeJarnette 1942, Plate 119; Griffin 1939: 163). Sporadic occurrences are reported from southern Alabama (DeJarnette 1952: 283) and along the Gulf Coast (Willey 1949: 466).

CHRONOLOGICAL RANGE: The period ca. 1250-1500 or part thereof.

PROBABLE RELATIONSHIPS: The engraved meander, scroll, and the cross-hatched areas characterize Walls Engraved, centered in the Memphis subarea of the Lower Mississippi Valley. Some similarities to Hull Engraved and Ranch Incised of the same area are also apparent. The spiral meander of Leland Incised in the Lower Yazoo Basin closely resembles the Moundville Filmed Engraved meander, although the technique is different. Design on Moundville Filmed Engraved bowls differs only in technique from that on Mound Place Incised, a relatively rare type in the Lower Valley which is also present in the Tennessee-Cumberland area.

Although Mississippian engraving must have been derived from Mexico perhaps by way of the "Caddoan" area, no specific similarities between Moundville Filmed Engraved, Mexican engraved pottery, and Gibson Aspect types are discernible.

MOUNDVILLE ENGRAVED-INDENTED (for illustrations see Moore 1905, Figs. 37, 52, 87, 143)

PREVIOUS DESCRIPTION: Not previously described.

PASTE: Same as Moundville Black Filmed.

SURFACE FINISH: Same as Moundville Black Filmed.

DECORATION:

Techniques: Fine-line engraving as on Moundville Filmed Engraved with the addition of indenting or "dimpling" the surface before the clay had hardened. The result is a smooth, shallow, oval indentation somewhat larger than a thumbprint. The thumb might indeed have been used to make the indentation, although a water-rounded pebble (which are numerous in the soil around the Moundville site) could also have been the implement.

Designs: Indentations are placed diametrically opposite on the body as one or 2 pairs or as 2 regularly spaced rows encircling the vessel. The engraved motifs are interlocked scrolls, concentric circles, broad, multi-line arcs, and cross-hatched areas. The indentations are integrated with the engraved design, forming the center of scrolls and circles. Southeastern Ceremonial Complex designs - definitely uncommon - are the sun circle and bilobed arrow.

Several whole vessels and a few sherds are indented but lack engraving. These are so rare that it does not seem wise to set up a separate type.

FORM: Small bottles only, similar to Moundville Filmed Engraved. Dimensions differ slightly, as follows: mean body height 96.9 mm., mean maximum diameter 151.7 mm., mean neck height 46.4 mm., mean exterior diameter at lip 87.3 mm.

GEOGRAPHICAL RANGE: The Moundville site and Moundville phase sites in the Pickwick Basin (Webb and DeJarnette 1942, Plate 122 [2]). Indented vessels are pictured from the Walls and Nodena phases (Phillips, Ford, and Griffin 1951: 159, Figs. 104g and 110a) and may occur in the Lower Yazoo (see Ford 1936, Fig. 23i). These vessels are probably Bell Plain and Walls Engraved, although some may be Moundville Engraved-Indented obtained by trade.

CHRONOLOGICAL RANGE: The period ca. 1250-1500 or part thereof.

PROBABLE RELATIONSHIPS: Related to those vessels of Bell Plain and Walls Engraved which are indented, as described above. It is not clear whether indenting originated at Moundville or in northeast Arkansas.

Indentations characterize the obscure type Hare Hammock Surface Indented from the Florida Gulf Coast in the Weeden Island Period (Willey 1949: 429). Some connection with Moundville Engraved-Indented is conceivable, but in view of the probable difference in time relationship is unlikely.

MOUNDVILLE FILMED INCISED (for illustration see Moore 1907, Fig. 72)

PREVIOUS DESCRIPTION: DeJarnette and Wimberly 1941: 84.

PASTE: Same as Moundville Black Filmed.

SURFACE FINISH: Same as Moundville Black Filmed.

DECORATION:

Techniques: Incising. Lines vary from 2 to 5 mm. in width, those on bowls being widest and deepest. The incised trough is smooth and tends to be U-shaped in cross section.

Designs: Essentially a simplification of Moundville Filmed Engraved design. Bottles are decorated with a simple, 1- or 2-line interlocked

scroll running around the vessel at the point of maximum diameter. Cross-hatching is not typical. Bowls are usually encircled by 3 to 8 closely-spaced parallel lines immediately below the lip, often combined with paired festoons. Groups of opposed parallel lines and line-filled triangles also occur on the upper body of bowls and jars.

FORM: Bottles, hemispherical bowls, beaker-bowls, composite-silhouette bowls, jars. Bottles and bowls are more common than jars.

Rim: On jars, straight and flaring or recurved, mean height 21.0 mm. On composite-silhouette bowls, straight and vertical or slightly flaring.

Lip: Unthickened, rounded or slightly flattened.

Body: Small bottles with flattened-globular body, mean body height 99.4 mm., mean maximum diameter 160.8 mm., mean neck height 45.6 mm., mean exterior diameter at lip 85.8 mm. Beaker-bowls with straight sides and rounded hemispherical bowls, mean height 71.4 mm., mean maximum diameter 131.1 mm. Small jars with flattened-globular body and vaguely defined shoulder, mean height (including rim) 112.3 mm., mean maximum diameter 151.2 mm.

Base: On bottles and hemispherical bowls, continuous with curve of body but slightly flattened. On beaker-bowls, flat, meeting the body walls at an obtuse angle. Unthickened on all forms.

Thickness: Mean 5.8 mm., range 3-10 mm.

GEOGRAPHICAL RANGE: Centered at Moundville. Reported from Bessemer (DeJarnette and Wimberly 1941: 84). This type probably extends through northern Alabama to the Tennessee River and east to the Appalachians.

CHRONOLOGICAL RANGE: The period ca. 1250-1500 or part thereof.

PROBABLE RELATIONSHIPS: The simple interlocked scroll resembles Leland Incised motifs. Similar figures are also found on Pensacola Three-Line Incised (Fort Walton Period) and Pinellas Incised (Safety Harbor Period) on the Florida Gulf Coast (Willey 1949: 466, 482). Bowl shapes and decoration closely resemble Pensacola Incised (Fort Walton Period) and Lamar Bold Incised (Willey 1949: 464-465, 493). Bowl decoration is virtually indistinguishable from Mound Place Incised design. Line-filled triangles on Moundville Filmed Incised resemble a similar motif on Barton Incised in the Lower Mississippi Valley.

MOUNDEVILLE INCISED (for illustration see Moore 1905, Fig. 140)

PREVIOUS DESCRIPTIONS: DeJarnette and Wimberly 1941: 83; Heimlich 1952: 24-25; Wimberly 1960: 184-185)

PASTE: Same as Warrior Plain.

SURFACE FINISH: Same as Warrior Plain.

DECORATION:

Techniques: Incising. Lines 2-6 mm. wide. The clay displaced by the incising tool remains as a low ridge beside the line. Lines tend to be V-shaped in cross section. The technique is crude in comparison to that of Moundville Filmed Incised.

Designs: A single-line, continuous arch on shoulder, encircling the vessel and giving it a lobed appearance. The line is bordered at right angles by short, closely spaced parallel lines and/ or punctations.

Groups of opposed parallel lines, line-filled triangles, and chevrons may occur on the upper body of jars and on the rims of broad hemispherical bowls. The arch motif is absent from bowls.

FORM: Predominantly jars similar to Warrior Plain jars. Also hemispherical bowls and very broad, plate-like bowls.

GEOGRAPHICAL RANGE: Probably in Alabama from the Tennessee River to the Gulf (e. g., DeJarnette 1952: 283; Heimlich 1952: 24-25). Sherds from the Lower Yazoo Basin somewhat similar to Moundville Incised are pictured by Ford (1936, Figs. 20i, 30h).

CHRONOLOGICAL RANGE: The period ca. 1250-1500 or part thereof. The similarity to proto-historic and historic types may indicate that Moundville Incised occurred late in this time span.

PROBABLE RELATIONSHIPS: Similar to many proto-historic and early historic types in the Southeast, such as McKee Island Incised in Alabama, Lamar Bold Incised and Ocmulgee Fields Incised in Georgia, and Aucilla Incised in northwest Florida. This type is not readily distinguishable from McKee Island Incised.

Discussion

Certainly the most distinctive characteristics of Moundville phase pottery - or, indeed, of the phase as a whole - are engraving, indenting, and black filming. The unique double-firing technique of filming and indented decoration may both have originated in the Moundville phase, and engraving was elaborated to a greater degree than in any other Mississippian phase.

On the other hand, decorated pottery is extremely rare in general excavation. In classifying 97, 561 shell-tempered sherds excavated from the road surrounding the plaza at Moundville, Wimberly found only 397 Moundville Filmed Engraved sherds, but 79, - 442 plain sherds (Wimberly 1956: 19). All the decorated and filmed types make up hardly 16% of the total.

The decorated types were apparently intended solely for ritual use and perhaps were made exclusively to be placed with burials. The typical Moundville phase type is Warrior Plain, which, however, is not at all distinctive.

External relationships are clearly to the Lower Mississippi Valley. Although the Moundville technique of black filming is not found there, it may have originated as an attempt to copy the color of Bell Plain using

clay that would not fire to the requisite dark hue (McKenzie 1964: 90-91). Walls Engraved is very similar to Moundville Filmed Engraved, although the latter emphasizes complex meanders to a greater degree. Vessel forms are virtually identical to those of the Walls and Nodena phases (cf. Phillips, Ford, and Griffin 1951, Figs. 101, 102, 104; Williams: n. d.). Indenting is also found in the Moundville phase and in the Lower Mississippi Valley (particularly, in the Walls and Nodena phases) and, with few exceptions, nowhere else.

Chronological position of the types within the phase is not known at present. It is reasonable to suppose that Moundville Black Filmed and Moundville Filmed Engraved were contemporaneous, as were Bell Plain and Walls Engraved in the Lower Valley. Moundville Incised may have been a late simplification of Moundville Filmed Engraved and Moundville Filmed Incised, and, in turn, may have been a fore-runner of the historic Muskogean pottery types.

Note

Material for this paper was gathered in the course of a study of the Moundville phase made in 1963. I should like to thank Mr. David L. DeJarnette, Curator, Mound State Monument, and Dr. Frederick J. Dockstader, Director, Museum of the American Indian, for permitting me to study the collections at Moundville and at the Museum of the American Indian. Thanks are also due to Dr. Stephen Williams, Harvard University, for commenting on an earlier draft of this paper.

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THE NORWOOD SERIES OF FIBER-TEMPERED CERAMICS

by

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During the past fifteen years, the fiber-tempered pottery found on the Florida Gulf Coast has generally been assigned to the St. Simons type, following the original designation of Willey (1949: 359). Sears and Griffin (1950) subsequently included St. Simons in their definition of the Stallings series for the Georgia-South Carolina region. Retention of the name "St. Simons" for the Gulf coast ware has inferred a much closer relationship between these two regions than exists in reality. Other investigators have chosen to assign this plain fiber-tempered pottery to the Orange series of east Florida (Bullen 1958), which seems equally inapplicable. The apparent inability to settle on a single designation for this plain ware points to two consistent features of southeastern fiber-tempered ceramics. First, the existence of vegetal fibers of varying types as tempering material unites part of the southeast during approximately a thousand-year period, thus constituting a valid ceramic horizon. Second, regional differences in the undecorated, plain fiber-tempered types are not always distinguishable, resulting in such confusion as that noted above between Orange and "St. Simons" Plain. (In fact, the similarities in plain sherds reach even further. Sherds of fiber-tempered plain ware from Puerto Hormiga, Colombia, carried to a conference by the writer, were identified by some southeastern archaeologists as Orange Plain without reservation.) Part of the confusion is probably due to the presence of "trade sherds," but largely it results from the regional overlap in manufacturing and finishing techniques which appear to have a common, traditional origin. The assignment of ceramic series to different regions has relied more upon types which exhibit varying surface decorations than on differences in the plain, undecorated types. The idea of fiber-tempering unites the regions; mutually exclusive popularity of particular surface decorative techniques sets them apart as distinct socio-cultural groupings.

The series described herein consists of two types: Norwood Plain and Norwood Simple Stamped. Norwood Plain includes some sherds which would readily be identified as Orange, Stallings, or Wheeler Plain if viewed out of regional context, but which are generally rougher in appearance, less well-made, than the "type" sherds in other series. If a judgement should be made regarding close similarity, then Willey's original comparison to the Georgia ceramics is still valid. Norwood Simple Stamped delineates a regional decorative variation distinct from both Wheeler Simple

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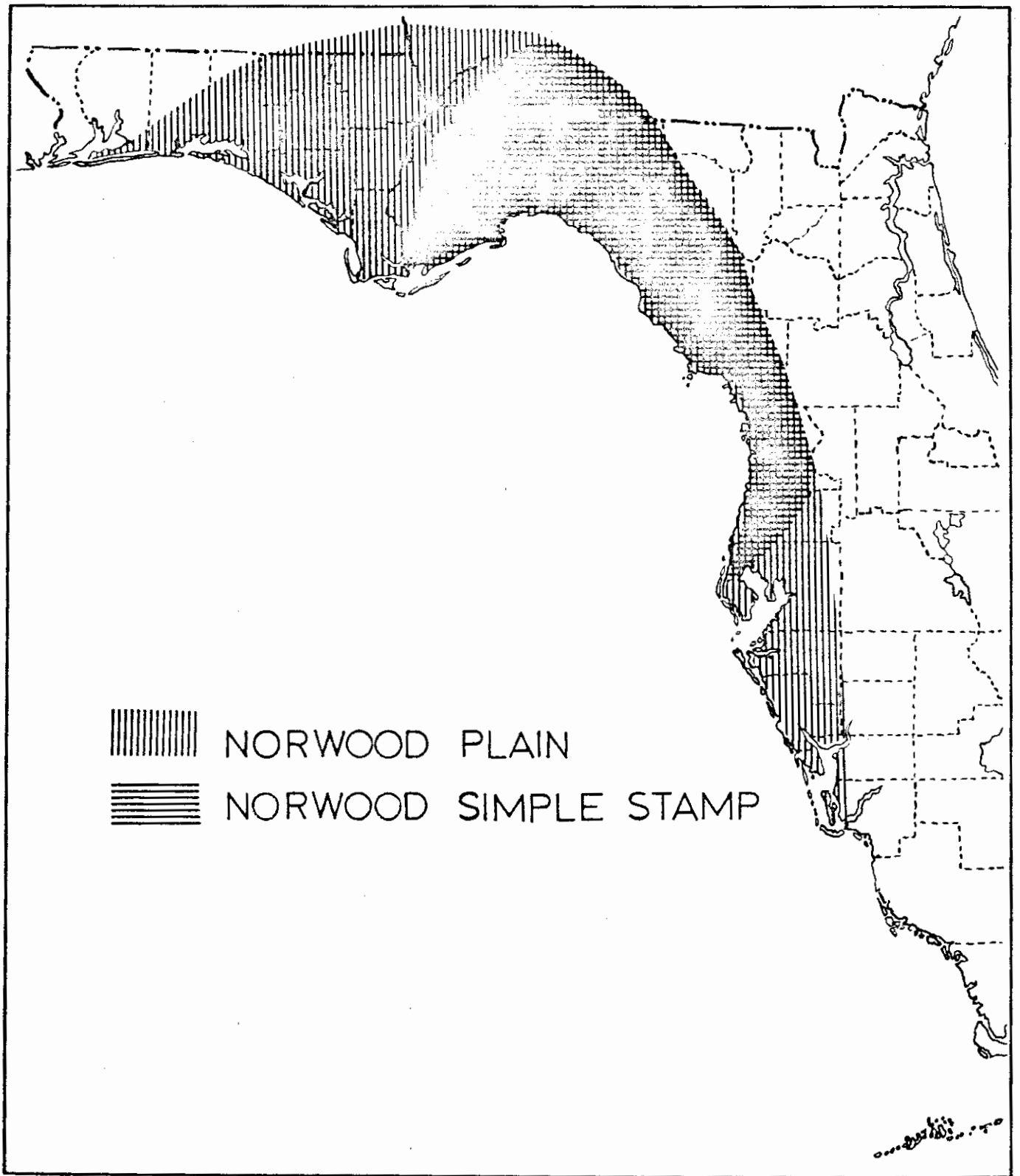


FIGURE 1.

Present distribution of the Norwood Series.

Stamped (Sears and Griffin 1950), and those few sherds possessing this type of decoration along the Savannah River (Phelps and Burgess 1964; Charles H. Fairbanks, personal communication). A similar type has been reported in extreme northeast Florida (Bullen and Griffin 1952), and may represent inter-regional trade.

Parallel dowel impressions are the predominant stamping technique of Norwood Simple Stamped, and appear to lead directly to Deptford Simple Stamped in this region. This is further enhanced by the presence of crossed simple stamping on some of the fiber-tempered material, followed by a strong emphasis of this decorative treatment in the Deptford phase, often at the expense of check stamping.

Tempering material in the Norwood series gradually shifts from fiber to sand, often with inclusions of particles larger than the sand range. As in other regions, the transition is gradual, and there is no satisfactory means of arbitrarily delimiting temper proportions. The present definition of the Norwood series includes all those ceramics which contain fiber tempering, regardless of the proportional amount of sand or other included aplastics. A case in point is the "semi-fiber-tempered" of Bullen (1953: 88), recognized as a "transitional type." It is included in the Norwood series which has a "built-in" transition, ending with the discontinuance of fiber-tempering in the Deptford phase.

The presently known distribution of the Norwood types is given in Figure 1. Most of the distributional data are from unpublished collections and current research in the Department of Anthropology and Archaeology, Florida State University. The bibliography lists published references to sites containing material of this series.

NORWOOD PLAIN

(Previous designations: St. Simons Plain (Willey 1949)
Semi-Fiber-Tempered Plain (Bullen 1953)
Orange Plain (Bullen 1958).)

PASTE:

Method of Manufacture: Two methods seem probable from the evidence; modelling from a single mass of clay, and fillet-building.

Temper: Vegetal fiber; imprints of the fibers indicate both cylindrical, and flat, angular structure, with the former in the majority. Variable amount of clastic material, usually sand, may be present. Temper ranges from purely fiber (Figure 2a-c) to predominantly sand with little fiber (Figure 2h).

Texture: Uneven, lumpy, frequently contorted or laminated.
Vesicular to granular.

Hardness: 1.0 - 2.5.

Color: Surface ranges from light buff and light gray to dark brown. Occasional specimens have surface colors in the orange to red range. Fire-mottled exteriors appear on some sherds. Surface color appears to vary from site to site depending on provenience of local clays. Core color generally shows reduction to gray or black.

SURFACE FINISH: Exteriors variably finished from very smooth to rough. Interiors generally smoother than exterior, and occasionally show tooling marks.

DECORATION: None.

FORM: No whole vessels known. Vessel diameters range to at least 50 cm.

Rim: Straight to slightly out-slanting. In-slanting rims infrequent (Figure 5).

Lip: Predominantly rounded, but flat type occurs. Usually thinned, but occasionally same thickness as body wall. One example of flat, thickened lip with simple stamped decoration.

Base: Rounded and flat types present (Figure 5). One example of flat base with "heel."

Body: Simple bowl (round) appears to be the mode. Long oval, or rectangular, "tubs" may occur.

Thickness: Lip from 4 to 20 mm (normal range 4 to 11 mm); rim and sidewall from 0.7 to 1.5 cm; base from 0.7 to 2.3 cm.

Appendages: None known.

GEOGRAPHICAL RANGE: Along the Gulf coast of Florida from Charlotte to Santa Rosa Counties (Figure 1). Inland extent poorly known at present, but at least to Georgia state line in the north and Alachua County in the east.

CHRONOLOGICAL POSITION: Earliest ceramics where found stratified (Coates 1955; Bullen 1958; W. C. Lazarus, personal communication). Considered to be contemporary with other fiber-tempered series in the southeastern U.S. One radiocarbon date may be applicable to latter part of the phase; 1195 BC (3150 \pm 250 BP, Bullen 1961: 104).

PROBABLE RELATIONSHIPS: More closely related to Stallings series than others in technological aspects.



FIGURE 4.

Norwood Series; base sherds and simple stamped body sherds..

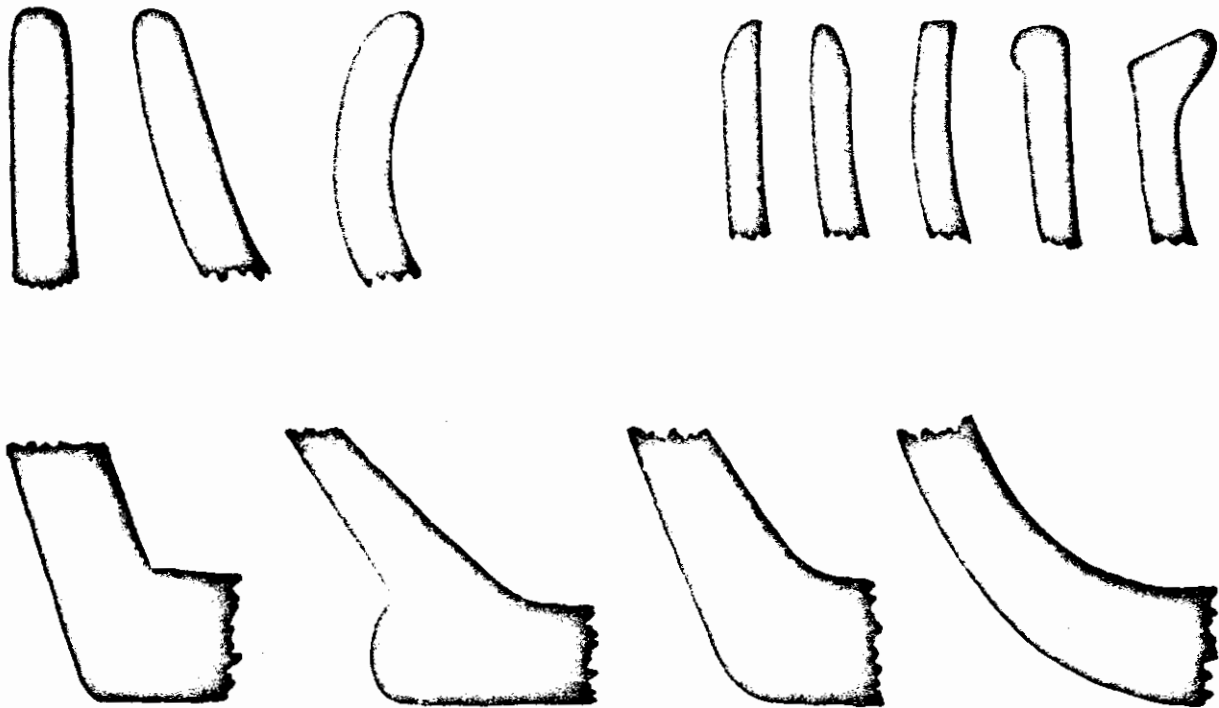


FIGURE 5.

Norwood Series rim, wall, and base profiles; interiors to right.

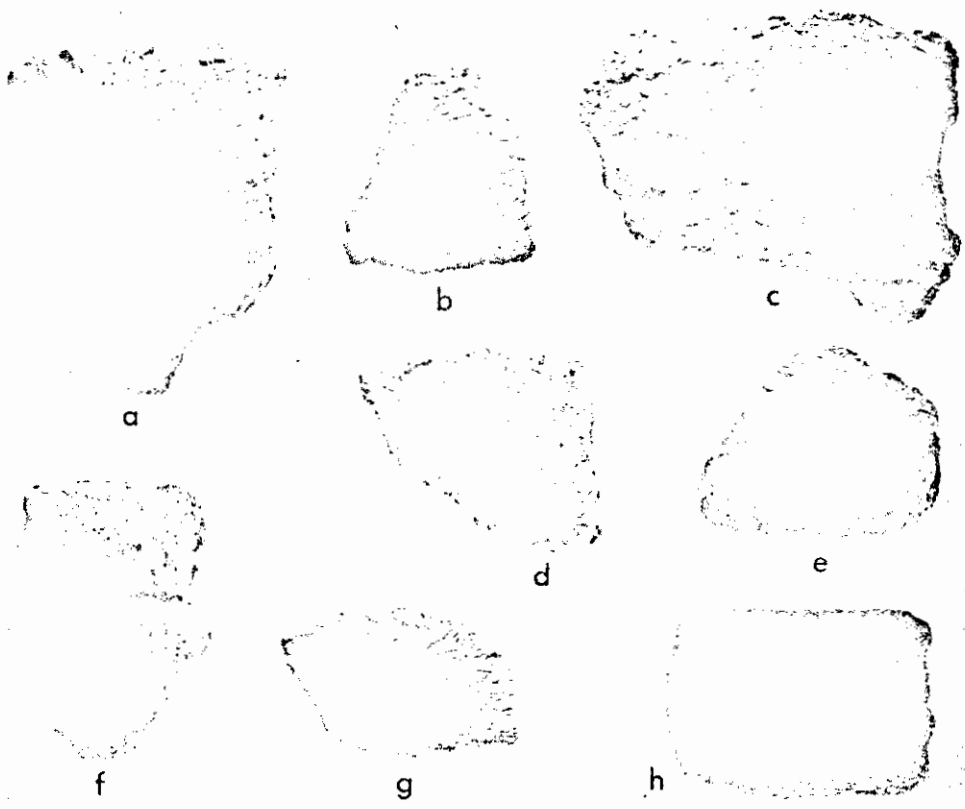


FIGURE 2.
Norwood Plain.

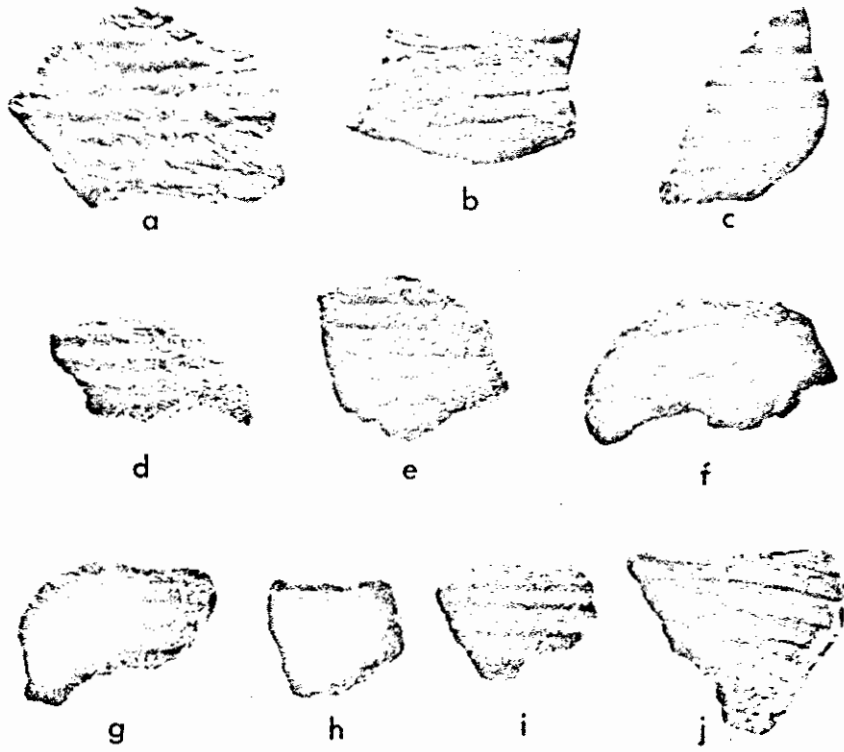


FIGURE 3.
Norwood Simple Stamped.

NORWOOD SIMPLE STAMPED

(Previous designation: Semi-Fiber-Tempered Simple Stamped
(Bullen 1953).)

PASTE, SURFACE FINISH,
AND FORM: Same as Norwood Plain.

DECORATION: Stamping with a dowel-like tool, resulting in rounded impressions ranging in width from 2.0 - 5.0 mm (Figure 3). A few specimens have impressions made with a flat-edge tool in approximately the same width range (Figure 4f). Impressions are usually parallel to the vessel rim, but are occasionally applied perpendicular (Figure 4a-b). Stamping occurs on both the exterior and interior of some specimens, and rarely on the interior only (Figure 3f). In one instance decoration is limited to stamping on a flat rim. Cross-stamping at right angles occurs in at least one locality, often with the final stamp only lightly impressed (Figure 3g, j).

GEOGRAPHICAL RANGE: Presently limited to the area bounded by the Appalachicola River to the west and Hernando County to the South (Figure 1).

CHRONOLOGICAL POSITION: Assumed to appear later than Norwood Plain but date of appearance unknown at present.

PROBABLE RELATIONSHIPS: Simple stamping, as the sole form of surface decoration on the fiber-tempered pottery of the region here defined, sets the Gulf Coast apart from decorative techniques in other fiber-tempered series. It is suggested that a closer relationship exists with the Stallings series than either Orange or Wheeler. Simple stamping and cross-simple stamping carry directly over into Deptford ceramics in this region, the transition to sand temper occurring gradually in the fiber-tempered phase.

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