PROCEEDINGS OF THE
1986 LAMAR INSTITUTE CONFERENCE ON
SOUTH APPALACHIAN MISSISSIPPIAN

Edited By
MARK WILLIAMS

LAMAR Institute Publication 6
LAMAR Institute
1990
INTRODUCTION

The LAMAR Institute sponsored a small conference of archaeologists on the subject of South Appalachian Mississippian on May 9 and May 10, 1986. The conference was held at Ocmulgee National Monument in Macon, Georgia. The original Conference call was sent to researchers on September 17, 1985 and an additional letter was sent on December 31, 1985. This letter asked researchers to submit chronology charts and research paper drafts. The chronological charts were then compiled and sent to all researchers along with copies of all the papers submitted. The conference was divided into day-long sessions on chronology, chaired by myself, and additional research topics chaired by the late Gary Shapiro. The Lamar archaeologists at the conference included:

- David Anderson
- Chad Braley
- Ray Crook (Day 1 Only)
- Chester DePratter
- Dan Elliott
- Pat Garrow
- David Hally
- Jim Hatch
- Charles Hudson
- Dorothy Humpf
- Calvin Jones
- Chris Judge
- Jim Knight
- Steve Kowalewski
- Jim Langford
- Lewis Larson (Day 1 Only)
- Jerald Ledbetter
- Jerald Milanich (Day 1 Only)
- Roger Nance
- Richard Polhemus
- Jim Rudolph
- John Scarry
- Frank Schnell
- Gail Schnell
- Gary Shapiro
- Marvin Smith
- Frankie Snow
- Greg Waselkov (Day 2 Only)
- Mark Williams
- Dean Wood

Additional Conference attendees included: education director of the LAMAR Institute, Jackie Saindon; then archaeology graduate students Ken Carleton, Rita Folse, and Beth Misner; Macon area amateur archaeologists Sylvia Flowers, Sam Lawson, and John Whatley; and sound engineer Jim Hawkins of Athens, Georgia.

The Conference included a banquet where old excavation films were shown and a tour of the famous Lamar Mound site (9Bi2) near Macon. Video tapes were made of some of the talks and part of the tour of the Lamar site. These will presumably produce laughs at some distance future Lamar Conference. The eight tapes recorded for the conference have been transcribed and are presented here. Tape 3 was defective from the beginning, but very little audio was lost. I have standardized the many forms of "yeah" into "yes" and "'em" into "them." The spellings of some words are still in doubt. Also, in a few cases, I could not tell who was talking. In both cases question marks have been inserted into the text. The locations of paragraph breaks placed into long talks were selected merely to break the text into more readable chunks. I have eliminated most stutters and stumbles.
References to slides shown are admittedly opaque, but I have left the comments in just as they were recorded on tape. I listed the first names of each speaker only the first time they spoke, and used last names only after that. Occasional editorial comments are included in brackets within the text.

The materials contained within this document range from the fascinating to the boring and from the useful to the useless. It is my hope that it will be of some use in the present and in the future as archaeologists of the South Appalachian Mississippian continue to expand our knowledge of this subject. At the very least, it well documents Lamar archaeology in 1986.

This version of this report was edited lightly by the editor in January of 2011.
BEGIN DAY 1

BEGIN TAPE 1, SIDE 1
[VARIOUS PEOPLE IN BACKGROUND DISCUSSION AND BEEPS AND WHISTLES AS THE INITIAL SETUP BEGINS]

JIM HAWKINS - This is the beginning of Sound Level Number 1. This is tape Number 1. We are at the Ocmulgee Indian Monument in Macon, Georgia. The LAMAR Institute. Today is the ninth of May, 1986. Sound Level Number 1.

MARK WILLIAMS - There are a few people who aren't...haven't quite made it, but it's ten after and we need to get started. We've got a lot to do today. I want to start out by welcoming everyone of you here on behalf of the LAMAR Institute to the LAMAR Institute Conference on South Appalachian Mississippian. We finally got a name for it at the very last minute. Gary put one on the program that you received. If any of you do not have programs with the daily schedules, speak now, because we have extras down here. Has everyone got a program? Okay. I want to start out doing the usual thing of making some...giving out some credits and thanks to a number of people. First off, to Ocmulgee National Monument and in particular, Sylvia Flowers, sitting down here in the corner, for doing the local arrangements here at the Monument. We're the beneficiaries of this recently renovated room, and I tell you, it's just a marvel to see the difference in this place compared to the last time probably any of us saw it. I think it's just wonderful what they're doing here, and I hope that we can, in the future, maybe have some more meetings here. Maybe not of this one, though. John Whatley helped us get all these tables that we have here. They came from Cherokee Heights Baptist Church, and they loaned them to us for the day, and we thank them. I want to thank Gary for getting the program put together and typed out at the last minute and mailed out to everyone; something that I'm sure that he spent more than a few minutes doing. And I want to thank Jim Hawkins over here in the corner and point him out for everyone. Jim is recording this for us for posterity and also in order to make typed transcripts of all the conversations. I need to mention a couple of things. We had a minor snafu with the recording equipment, so many of the microphones sitting around in front of you are dummies...

[LAUGHTER]

JIM HATCH - As opposed to...

[LAUGHTER]

WILLIAMS - ...and so when you speak, please speak up because you never know which microphone you're speaking into.

Okay, let me briefly go over the day's activities for us. I don't have a schedule in front of me, okay, here we go. Well, most of it's pretty obvious. Today is the section where we're dealing with culture history to use an old word. But we'll just drop both of those phrases and talk about chronology. That's what we're going to get down to today. In fact, I'm ready to almost get down to it and get rid of this thing {removes tie}. So, we're going to be doing chronology. The schedule is there in front of you. I want to make, I'm going to make a few comments before we get into the actual chronology. But in addition to the session, we have the banquet tonight, of course. And I need to make a couple of comments about that. We're set up at the Hilton Hotel for 7:30 tonight as most of you already know. It's in the Wesleyan Room. For those of you who have not paid for the banquet, such as David, [LAUGHTER] see Dean Wood. Now, there's a
minor problem with the money, and I have to take credit for this one. The Hotel told us, as I have told you up to this point, that the amount of money for the banquet was $14.95. They neglected to tell us that that did not include a tip, mandatory, that they're going to throw into us and tax. It's going to amount to something just under $3. So, I plead with you to dig a little deeper tonight [LAUGHTER] into your pockets and find about three more dollars so that the LAMAR Institute and our vast budget don't get completely plowed under. When, when I found out how much we were going to have to pay in one check for, for this meal it sent shock waves through the entire LAMAR Institute.

CHARLES HUDSON - So it's about 18 apiece?

WILLIAMS - Yes. Yes. We are, by the way, going to have some films tonight, that will be fun. One of the films is excavations at Kolomoki back in the 50s. I think Dr. Larson may even be one of the stars in there. I'm not too sure about that. I haven't seen it in a while. The other one though is a film in Athens, by the Continuing Education Center that I don't think very many of you have seen; it's on "How To Do Archaeology." And it was made in about '64 or '65, and parts of it are literally hilarious. So, we'll look at that tonight at desert at the banquet. Let's see. Photo session. We're going to follow a Southeastern tradition. There has been a classic photo made in the late 30s early 40s around the reconstructed entrance to the earthlodge. Some of you may have seen it with Griffin and Fairbanks and all these people there. Here come Gail and Frank now. At 4:00 today...at the 4:00 break grab a quick drink of water and then everyone must go out to the entrance to the earthlodge for group photos around the entrance to the earthlodge, again to document this occasion with photos. I think Beth is going to take the photos, she doesn't know it, [LAUGHTER] but...we have cameras. So it's 4:00. Keep that in mind. Don't wander off. Tomorrow's schedule is going to be taken care of by Gary and I really don't need to comment on that now. We've got a lot of things to cover.

I want to now quickly move into and make a couple of, of comments about the why we're here; what, what has gotten us to this point. A lot of people had talked about a conference such as this for a long time and we just finally decided, well, heck, let's do it. Originally, the intent was to have the absolute fewest people...to get one person from each region so that we could have active, open discussions and that's what we want to emphasize even from this point. That we want you to talk, we want to get into it. And this format is obviously designed with no podium to allow more open discussion rather than the standard disgusting format we've grown used to at conferences of having someone give a paper and sit down and, and it's just gone with the wind. We don't want that. It's kind of to be like the old Southeastern Conferences from years ago, many of which were probably held right in here, so it's a bit appropriate that we should be in here. We don't have any intention for this to be an annual meeting. This is a one-shot deal. Particularly after the amount of, of effort it's taken to get it going, I refuse to do this every year.

[LAUGHTER] There have been a few other conferences in the past that have attempted to be dealing with Lamar. There was one at Tallahassee at FSU in 1973. I have transcripts of that here for any of you that want to glance through it. I've read through the thing carefully and there's a lot of changes between the attitudes about what is Lamar or what is Southern Appalachian Mississippian between then and now. I'm sure that you can think of some of them, I'm not going to go into them right now. The only other thing that really is like this is that, at the SEAC meeting in 1975 in Gainesville there was a symposium that dealt with Southern Appalachian Mississippian. But
again, that was one of the standard get-up-give-your-paper-and-sit-down type of conferences, and, and so in truth it's been a long time since there's been any real discussion about this.

We do intend to publish these papers and the chronologies. The format is yet open. We have...we're going to be looking for a publisher shortly and we will be looking for suggestions and ideas from you, who are in more direct contact with publishers than we are but, rest assured we will not wait long for this to get in. And with that in mind I want to urge all of you now who have not turned in formal copies of your papers or who, as all of us want to, edit your papers before you turn them in, do it soon...do it quickly. I would like to try to have you have everything in, like, within the next month. Let that sink into your head.

A few quick comments about advances that we've made in our field in Lamar or Mississippian, Southern Appalachian Mississippian in the last 15 years that I just kind of jotted down here, to kind of make a transition here going on into what we're going to be doing for the afternoon. The first is much increased survey. I think we'll..that the huge difference...the biggest difference between archaeology research then and now is that we now have under our belts incredible amounts of survey. We have found that there are huge numbers of small sites. The Wallace Reservoir, as all of you have probably gotten sick of hearing, has...there are over 800 small Lamar sites in the neighborhood of 30 to 40 or 50 meters in diameter. Fifteen years ago those things were only kind of given a nodding acceptance as even archaeological sites and now with our better understanding of the settlement patterns, etc., etc., we are starting to really see that we cannot even begin to understand the societies without recognizing them. Hopefully Jim Hatch is talking about maybe digging some of the things, some of these upland sites, in the upcoming years, and I think that that's going to probably to be in the future one of the big areas we're going to have to work on.

We've refined our chronologies tremendously. Look at those charts. Compare them to what we knew from 15 years ago. It's incredible. We're getting basic data from the large sites that we've known about for a hundred years, but we've just not gotten around to doing them. We've not gotten around to mapping them. We've not gotten around to testing and knowing what their time ranges are. We've finally recognized the importance of the sixteenth century documents for reconstructing lifeways of these societies. In the past there's just been an occasional reference to DeSoto, but now we're really into the documents--digging them for all they're worth. There has been too, I think, our definite usefulness, a wide acceptance of basic models of Chiefdom-like societies to help explain these Southern Appalachian Mississippian societies. We have a cultural model, whether it be right or wrong and everybody conceives of it slightly different, at least it's some cultural model that we can try to hang things onto...that we can kind of drape our pot sherds, as you will, over this to, to create a real, ultimately a picture of what the societies were like, which is, I presume, why we're all here anyway.

We have had increased study of man/land relationship: ecology, faunal studies, floral studies, all of that virtually has developed in the last 15 years. There's been a greater emphasis on publishing our results. There's been more publications come out in the last 15 years than all of the years prior to that. Now much of that is demographic. There's a heck of a lot more archaeologists now than there were before then, but still, the trend is true and clear and we have in each one of our states, literally thousands of documents now that we have to pour through in order to try to start doing any real background research. It's becoming very difficult. And finally, improvements in site files have become necessary because of these huge numbers of sites. You
can no longer keep all the sites in your head like Doc Kelly did. And you just can't keep seven, eight, ten, twelve, fifteen thousand sites in your head. Now moving right on into the chronology session for this afternoon I want to make a few brief comments about that and then we'll get right on into it. Chronology, as I just finished saying, we've improved it tremendously in the last 10 to 15 years and where did that data come from? Most of it came from contract archaeology. Let's just openly admit it, that's where it came from, if it was not for contract work we probably would have no reason to be here today. We would be in no better situation than they were 15 years ago and there wouldn't be much more new to talk about, so without CRM work nothing would have really been done.

A point that I've thought of recently and looking at our chronologies and it's made clear by a number of chronologies that are on the chart in front of you, is that in many areas we now have our chronologies down to human life spans. We have them down to say a hundred years or in some cases slightly less. And I think that that's going to make a, critical difference in the terms of the way that we look at our chronologies interfacing with human societies. We're down to the point where we can talk about changes in the lifetime of a person, whereas up to this time we had to talk about changes in say, three hundred year blocks or more and, and it loses the humanity associated with it, when you have to...when that's the best you can do. So I think that that's going make "human archaeology", to quickly coin a phrase, more realistic; we all agree but, but I think that that little analogy there is interesting. I hope today that some of the ceramic traits that some of you will be talking about in developing the chronologies in your individual regions will be ones that people in other regions have not thought about or have not looked at or have not examined and then you may be able to go back to your data and say, 'oh, yes that is true', and 'we can use the width of the rim strip' or 'we can use the number of incised lines as a chronological thing', and 'why did we never catch that before?'

I do have one thing I want to ask of you this afternoon. I have a list here of three very simple questions that I would like everyone who's presenting a chronology to try to explicitly address and if not then, then we'll ask you. The first is, what are your type-sites for your chronology in your region? What are the key sites from which your regional chronology has been developed over the years? Second, which of the phases in your region are the best known and which are the worst known or the least known? I know that for my region there are some of them that are better known than others, so we should just openly address that question. And then finally, I'm not sure this is a good one, but at least I'll throw it out, is, how much of the sequence was developed by simple stratigraphy? How much of it do you have that is--you have a nice, single site with deep stratified deposits and how much of it has been developed over the years through seriation? To lead on into the actual first presentation, I've kind of put together here a series of rhetorical questions. I'm not sure that they are all good, but at least they should serve the purpose of trying to set your minds in the direction of thinking chronology for the next four and a half hours. First is can we do better than one hundred year phases? Can we do better? I'm not going address these, by the way, right now. I would hope that in the conversations this afternoon some people do pick up on some of them.

Should we set up as ourselves a goal in some sort of silly sense, of getting one hundred year phases in every chronological area all the way back to at least 1000 A. D. and do that say, in the next 10 years or the next 5 years or something like that, you know. In some areas we almost already have that and in other areas we obviously do not. Are we agreed that "the phase" as a term
is our generally accepted unit of time-space? We seem to be. I mean, it's "phase" this, "phase" that. Phases are real popular. Is that good? Is that okay? Does it matter at all? What have you. Something that's occurred to me because if you, and it came from looking at your chart, is that on your chart, of course, all you really see is phases and there's very little reference there to our old classic Savannah, or Wilbanks or Lamar or Etowah as culture periods originally conceived. And so my question is, is the use of, or the need for, a culture periods somewhat on the wane now that we're starting to get more and more finely tuned chronology? I've already to myself said that well, no we can't get completely rid of it for one simple technical reason, that how many of you want to take a test by tomorrow on, and memorize the names of every one of those phases that are on there. We can't learn all those. We shouldn't be learning all the phases for all the valleys. So we have to, at some point, be able to draw some broad time-specific lines which ought to equate with our original culture periods, but they're now becoming, I think, more just periods. In any event. Should we really worry about absolute years versus Carbon 14 years for our Southern Appalachian Mississippian? I don't see many people worrying about it, or I don't see many people making a consistent effort to report their carbon dates in both and certainly when people are on these chronology charts very few of them, I think, have taken that much into consideration. The turn even point is what? 1300/1350? I just throw this out as an open question.

How consistent is the Southern Appalachian sequence from say, 1100 A.D. through historic times over the entire area?--The ceramics that is, and anything else you want to consider. Do we really have a basic consistency and what are the limits of that? What are our best horizon styles? Certainly the folded, pinched, and punctated rims have been around with us those for a long time, but we're getting others now. We're getting things at different time periods that are good horizon styles and are there better ones to be found? Well, those are, those are only things that I just want you to kind of play around with in your head, keep in mind, and that's really all the comments I have. I've probably run over...well, twenty minutes. That's just almost exactly right, wasn't it Gary? So, I think that we're ready, but before we jump into the actual chronologies, let me first ask if anyone has any questions or comments they want to make at this time about the general nature of the Conference or any specific practical details?

GARY SHAPIRO - I would like to mention something.

WILLIAMS - Go.

SHAPIRO - That a number of people have brought pottery collections from their regions to help illustrate the differences in their phases and many of them are assembled on those tables over there. As people give their presentation on their region they may wish to pass them around, so please feel free to, if you want to pass your sherds around the table just go over and grab them before your presentation. That's it.

WILLIAMS - The rest rooms are that way. Well, okay, first one on the schedule is, for the East Tennessee River Valley, Richard Polhemus. Go for it.

RICHARD POLHEMUS - I don't know why you picked on the northern end first.

WILLIAMS - Alright, Gary decided. Why don't you explain how you picked them?

[LAUGHTER]

GARY SHAPIRO - The same way I set up the Lamar Briefs. It's always from north to south and generally from west to east. Sort of the Creek Migration, you know?

[LAUGHTER]
POLHEMUS - Well, I really don't know quite what to add other than the summation that's here. I think our line on the temporal chart is a little later than what I would send in on the rough draft. I would cut it off somewhat earlier...

SHAPIRO - Well, let's amend that.

WILLIAMS - Well, let's make these changes as we go along.

POLHEMUS - ...more like 1620 than back to 1650.

SHAPIRO - You got late Dallas ending at 1620?

POLHEMUS - Thereabouts, yes.

SHAPIRO - Okay.

POLHEMUS - Of course, given my rough draft I can see how that might have occurred.

SHAPIRO - We got a lot of wavy pencil lines. [LAUGHTER] What's that based on do you think?

POLHEMUS - Pretty much a guesstimation.

SHAPIRO - Do you have documentary, documented sites where the late Dallas stuff is...

POLHEMUS - That's...for instance, at the Toqua site it's based on a distinct, but not too terribly thick humus line between the terminal structure next to the base of the main mound and a Cherokee structure built on top of the humus layer.

JERALD MILANICH - Can we ask really dumb questions, being not one of the Lamar researchers in this group? Are these ceramics that you used for, you know, temporal designations here, how close are... Are they within the big group of Lamaroid, if there is such a word, ceramics? In other words, I don't even know from looking at these. I see cord marking stuff which isn't. Do your incised wares, are they the same kind of Lamar-like designs that they get over in say, north Georgia?

POLHEMUS - Well...

SHAPIRO - There's a piece of paper and a marker.

POLHEMUS - Well, I tell you, certainly on the later end, yes, when the cazuela bowls come in.

MILANICH - In other words, is there a group of ceramics pan southeastern that might be called Lamaroid or...sounds like one of those Caribbean words, I think.

WILLIAMS - Pan southeastern?

MILANICH - Well, not pan-southeastern.

SHAPIRO - For this whole region.

MILANICH - Pan for this region.

SHAPIRO - I think that when we start getting into passing around collections you'll see the similarities are incredible. Just walking over to that table, looking at material from Tallahassee, to Tennessee, to Savannah, to the Wateree, that the similarities in terms of having complicated stamped and having folded, pinched rims and things that originally led to the definition of it are widespread.

MILANICH - So that if we were to take this little map we could draw a line from, what is that, the north end of Cumberland Island, Georgia, across to the about the mouth of the Aucilla there in other words from between Numbers 13 and 15...

SHAPIRO - Right.

MILANICH - ...over to everything south in peninsula Florida are just the bobos there they're not Indians. [LAUGHTER] And north of that, how far? In other words, could you draw a line on this delineating Lamaroid ceramics?
WILLIAMS - Well, I think that we have periphery people to do it. I'm right in the middle of it. I can't help a bit.

POLHEMUS - The Dallas stuff is essentially outside of what I would consider Lamaroid because of the virtual absence of complicated stamped of any temper group, we have a very small percentage and most of it is foreign, non-local tempered material. So if you use as the bold incised and complicated stamped and the rim style as the main parameters for Lamar, most of Dallas would be outside most of the time. The southern edge of the Dallas area might be within it or a greater amount of time. But that's one area of some confusion for me also has been the southern flank of Dallas and how it actually links up with things to the south.

CHARLES HUDSON - What would the southern flank be? Would that be the Hiwassee River area?

POLHEMUS - The Chattanooga area. Maybe from the Hiwassee. The Hiwassee and the Mouse Creek proper problem clouds the issue in that direction.

WILLIAMS - Does the complicated stamping go into Tennessee at all?

POLHEMUS - A very small amount. Then we have some very Etowah looking, Hiwassee Island Complicated Stamped.

WILLIAMS - Yes, that's earlier.

END OF TAPE 1, SIDE 1
BEGIN TAPE 1, SIDE 2

POLHEMUS - ...the early eighteenth century, Overhill Cherokee has virtually no shell tempered complicated stamped. When you get up to the mid-eighteenth century and later to the beginning of the nineteenth century you get an ever increasing amount of primarily curvilinear complicated stamped material and check stamped.

HUDSON - I'll be damned.

SHAPIRO - Well, I always looked at that edge issue in terms of drainage. That the Atlantic draining rivers seem to have this affiliation with stuff that we call Lamar or Lamar related and the Gulf draining rivers, at least at one time or another seem to be more affiliated with the Middle Mississippi styles of pottery, anyway and whoever is on that boundary, which ever rivers are closest to that divide between the Atlantic and the Gulf drainages at one time or another seem to exhibit some characteristics of both. If you take the Apalachee, which I'm just recently starting to get familiar with, you see that in the earlier Mississippian years, say up to 1450-1500 pottery is very similar to Middle Mississippi stuff. It's a Gulf draining river. And then around 1500, maybe 1550, you start getting things that look exactly like Lamar down in Tallahassee. It's on the edge of that Atlantic-Gulf drainage watershed and it seems like it's affiliations may shift at some point in time and maybe that's happening also in these rivers up in northwest Georgia and into Tennessee. I don't know. I don't know the regions very well maybe we'll hear about that today.

FRANK SCHNELL - Almost sounds like the old age-area business coming into play again.

[LAUGHTER]

MILANICH - You know I find...

F. SCHNELL - San Marcos and Cherokee and...
MILANICH - I think that Leland Ferguson has used the term South Appalachian Mississippian in his dissertation to refer specifically to something doesn't he? Maybe you ought to call this Lamar Mississippian.

WILLIAMS - I don't want to do that.

SHAPIRO - The problem with that is, see South Appalachian Mississippian applies to the pre-Lamar Mississippian stuff also, to the Etowah...every place you have that stamping prior to Lamar, which I guess we're going to get into some interesting new dates for Lamar but...so if we were to call it Lamar it would be a more restrictive term.

MILANICH - In time and space.

SHAPIRO - That's right.

WILLIAMS - I would almost say that what...this is almost like, I was trying to say earlier about the wane of the concept of the culture period or the lack of necessity of it. I don't think it's that important to argue about how we define Lamar. Is Lamar complicated stamped or is Lamar folded rims or is Lamar bold incised or is Lamar two out of the three, wherever they may be? Or do we just take it from on a valley by valley basis and look at the similarities and differences. Now there are some things, certainly, about east Tennessee that...I mean there's bold incising, don't you have folded rims?

POLHEMUS - Well, though on the Dallas period they're more of a, of an actual applique rather than a fold. The vessel is entirely finished, the lip is finished before the pinched or notched strip is added and it can break off, and not effect the lip of the vessel at all. Whereas in the historic Overhill Cherokee material, when that strip comes off it takes the lip off too, to the inner edge of the lip and that's, at least for the east Tennessee area is a very good denominator to split rim sherds between Dallas and Overhill.

WILLIAMS - Is that listed on your chart here?

POLHEMUS - No, because I didn't include historic Cherokee. I have appliqué rim strips, appliqué fillets.

SHAPIRO - And they only come in with historic Cherokee? There's no prehistoric folded rim?

POLHEMUS - That's a folded rim. The appliqué strips are there.

DEPRATTER - See, in the Wateree Valley in South Carolina it's the same way. We had very few folds until very late in the sequence and they are a real minority type. Almost everything else all the way back through the sequence is appliqué strip. So...on the periphery, it's a bit different.

SHAPIRO - Certainly we have both of them in the Oconee drainage, both of them. I don't know if we ever really figured out a chronological separation.

MARVIN SMITH - I think the appliqué strips on the Oconee are early and the later ones are almost entirely folded.

WILLIAMS - It's difficult sometimes to tell those folds though, as real folds. If they work the strip in really good at the top. In the later periods, I'm thinking about, in the later periods I agree with you.

POLHEMUS - Generally with the Dallas versus this Overhill Cherokee material you'll find evidence of coiled construction on those that have folded rims or rim strips that includes the lip of the vessel. If it's appliqué, it's more of a paddle-anvil and we don't have any coil breaks on the material.

SHAPIRO - Well, then for the earlier stuff...

POLHEMUS - It's a technological difference, producing ceramic roughly similar in appearance.
SHAPIRO - For the earlier stuff, then, the broad similarity that you're looking at is the appliqué strips, because you've got them in the Wateree, they're in the Oconee, earlier, and they're in your region also.

POLHEMUS - Primarily on bowl forms in the Dallas area.

SHAPIRO - Is that right? Well, see, that would separate it from every...most of the other regions.

DEPRATTER - From ours too.

SHAPIRO - Yes. That is, bowls very rarely seem to have any folded or appliqué rim strips.

GAIL SCHNELL - We have expanded...on the Chattahoochee we have expanded rim strips on the bowls that, with the notching around the edge almost at the edge of a curve.

SHAPIRO - Well, that happens in the Tallahassee area also in Leon-Jefferson times.

(?) - [too distant to hear]

[LAUGHTER]

WILLIAMS - Do people in Tennessee speak of Lamar?

POLHEMUS - No.

[LAUGHTER]

MILANICH - That's what I was going to...

SHAPIRO - There you go! There you go! You got it.

WILLIAMS - Okay. Okay. Well...

(?) - They're all trade sherds.

POLHEMUS - When we get some analyzed we may have a little better handle on whether they are or not. They certainly make up a very small percentage at any site, at least until you get down into the Chattanoonga area, where things start to pick up count wise...

SHAPIRO - Well, we all need to look at...you did bring some collections...

POLHEMUS - Yes, I have some of the sherds from one of the Mouse Creek type sites, the vessel...the Ledford Island site and also from the Dallas site itself over in the black boxes.

SHAPIRO - What we may be able to do is look at those and exclude them as fitting in our conception of Lamar, whatever those characteristics are...

WILLIAMS - Pass one or two sherds around. Are they, in a situation where they can be passed around?

POLHEMUS - Just pass the box around, perhaps, that has the Dallas tag in front of it. There's one Dallas box.

WILLIAMS - Can you all find that?

SHAPIRO - What would be good is if it turns out that we really can't group this with what we generally think of as Lamar or South Appalachian Mississippian, to help define some boundary, something on the edges.

POLHEMUS - I think that depends on where you draw your time line too.

SHAPIRO - Well, that's important.

SMITH - Richard, can you venture a date guess on the appearance of D'Armond Incised in your area?

POLHEMUS - We don't have any good tight carbon dated samples where you would say it is or isn't present, but my guess would be sometime in the second half of the fifteenth century.

SHAPIRO - I think this answers your question Mark that's it's important to still keep those culture area definitions. It's important to talk about larger units than just phases. We're interested in drawing those boundaries to see them through time.
WILLIAMS - I talked with...Jim Knight and I have talked a bit about the...trying to tie some of these big cultural things to some of the crudest level linguistic differences and...Jim what did we end up saying?...Didn't we try to lump Dallas and Lamar together as Eastern Muskogean or what did we say?

JIM KNIGHT - ?

[LAUGHTER]

JIM KNIGHT - All I can really conclude from that is that the only stable boundary through that millennium is the one that goes straight up and down through Alabama...the north-south axis there, which divides folks on the west who are more into grog tempering, incising, and plain traditions from the more South Appalachian stuff to the east which goes way on back in time. That boundary sort of stays there. Now, if anything, that should correlate with linguistic things...anything else is just too unstable in my opinion.

WILLIAMS - So the likelihood of trying to sit down and really do anything about Dallas versus Lamar in terms of linguistics is going to probably lead us to nothing but confusion?

KNIGHT - Possibly, unless the documents from the sixteenth century are any help on that. For example, I have some strong suspicions about the named Dallas towns of being Alabama and Koasati linguistically. I would like somebody to play with that sometime and see if that's really true.

HUDSON - They are Koasati or Koasati-like.

KNIGHT - Well, in that case then, are we talking about Dallas being mainly Alabama and Koasati or not?

HUDSON - Linguistically?

KNIGHT - Linguistically.

HUDSON - They were in the sixteenth century.

KNIGHT - We're not doing the sixteenth century.

WILLIAMS - He said yes.

KNIGHT - Yes, okay.

WILLIAMS - Well, I think we have been thinking that a good portion of the Lamar material is Hitchiti. Now...

F. SCHNELL - I'm reminded of somebody's discussion one time though that if the first archaeology would have been in north Georgia everybody would have said it was Cherokee.

WILLIAMS - We've played with that argument in our minds off and on and it's pretty much rejected now, but I'm sure it'll come up.

SHAPIRO - ?

WILLIAMS - I'm sure it'll come up again. Does anyone right here today believe that Lamar, here in central Georgia could be Cherokee? Although we're straying a little bit.

WILLIAMS - What do people say in east Tennessee that they think linguistically that the Dallas sequence represents?

POLHEMUS - Well, there have been some changes of opinion in recent years, principally affected by Charles' work with the linguistic affiliations in the Pardo documents and other sources. But that I think has had people back to some of the original thoughts of Lewis and Kneberg in the 40s tying in the Dallas with basically a Muskogean background. Of course there are still some people that would like to see a progression from Dallas into Overhill Cherokee.

WILLIAMS - A continuity?
POLHEMUS - ...which, other than both being shell-tempered, that's really about the only continuity you have. There's no continuity in vessel appendages or their mode of attachment. Their technological aspects of vessel construction are different. You can make a better case for continuity between the earlier Hiwassee Island period material in east Tennessee and historic Cherokee than between Dallas and historic Cherokee, based on settlement pattern, use of pits, smaller number of appendages, greater percentage of plain wares.

WILLIAMS - Well, you don't have...you move your time line for us back a few years for late Dallas and you said you didn't address the Cherokee question on your chronology chart. Do you think there's any archaeological evidence for a gap at the end of Dallas and the beginning of Cherokee in that valley?

POLHEMUS - A short one, yes.

WILLIAMS - When would you start your Cherokee?

POLHEMUS - ...at a southward progression bringing probably the Overhill Cherokee guys of a little further up in upper east Tennessee.

WILLIAMS - Further to the north?

POLHEMUS - The Autauga area and maybe up on the Pigeon, the Big Pigeon.

WILLIAMS - So when would they have been moving down in there? 1670, 80?

POLHEMUS - Yes, the last half of the seventeenth century, probably fairly late in it, which was suggested by Samuel Cole Williams 50 years ago almost.

SHAPIRO - I think we need to move drainages to get some comparative material and move closer toward the Appalachian region.

WILLIAMS - What about the Hiwassee Valley?

POLHEMUS - That has some interesting problems in its own right. The foremost of them being where Mouse Creek links up both with other areas and temporally. One problem with Mouse Creek is, I think, in combining the original half dozen sites or so in the Hiwassee drainage itself, where Mouse Creek was originally defined, with sites outside the immediate Hiwassee Valley both on the main Tennessee River and further south. This mixes sort of apples and oranges a little bit.

WILLIAMS - Why do they do that?

POLHEMUS - People have done it since that original definition. And I think they should be treated as two different entities, one the group, the original Mouse Creek group on the Hiwassee as a discreet group of sites which show affiliation with the middle Cumberland culture of central Tennessee on a number of ceramic and other materials, culture traits and the second group being the more generalized later terminal Mississippian on the main Tennessee River itself, which shows some relation to Mouse Creek, but also to Dallas. And this material is present on a lot of the Dallas sites also in addition to these separate sites on the main Tennessee. But it's been masked by 3 or 4 feet of midden, sometimes 400 hundred years or more of occupation on the same sites. And it's tended to get obscured on the long-term occupation sites and stand out in the smaller number of late sites that began considerably later in most Dallas sites.

WILLIAMS - Why do we have only one thing on the Hiwassee River? Is that because it was all flooded and that was all that we had time to grab anything? I mean...what was before and after the Mouse Creek phase or whatever you...on the Hiwassee River?

POLHEMUS - Okay, there is one major Mississippian site that has both Dallas and Hiwassee Island on it. The Conasauga site near where 411 crosses the Hiwassee.
WILLIAMS - Is it distinguishable in any way from the stuff...from the valley, the Tennessee Valley?

POLHEMUS - Well...

WILLIAMS - Should it be a phase is what I was asking? No?

POLHEMUS - A Dallas outlier.

WILLIAMS - Dallas outlier?

POLHEMUS - It's the only good Dallas site on the...

WILLIAMS - Dave?

HALLY - Yes, Dick would you tell us what the difference between Mouse Creek ceramic assemblages and say, Dallas, middle to late Dallas. What distinguishes the two?

POLHEMUS - On the Mouse Creek sites used as the type sites there are only 22 shell tempered cord marked sherds out of the 25,000 sherds. The effigy model material has much greater tendency for elements to face toward the interior of bowls which is characteristic of the middle Cumberland culture as opposed to Dallas, where effigies generally face outward. At...

HALLY - How common is shell-tempered cord marking in late Dallas?

POLHEMUS - Pardon?

HALLY - How common is shell-tempered cord marking pottery in late Dallas?

POLHEMUS - It's less common than it is in middle Dallas but it's still present to a greater degree than the Hiwassee Island, Hiwassee River Dallas...

HALLY - Okay, you have Dallas extending all the way from Knoxville, from Chattanooga up to almost the northeastern border of Tennessee, right?

POLHEMUS - Yes.

HALLY - Is there equal amount of difference between the northeastern and southeastern end of the that area of distribution? Is Dallas that uniform throughout that area that you show on the map? Ceramically?

POLHEMUS - I think that there is some regional variation.

HALLY - Is it as great as this Mouse Creek-Dallas distinction? Or less great?

POLHEMUS - It's less distinctive.

WILLIAMS - I guess what you're trying to ask is can we take number 1 on that thing and split it up into two or three little circles?

HALLY - Well, I'm just wondering if we're still not dealing with a relic of the past--Kneberg and Lewis' past in the sense that Mouse Creek has been separated out early on when not much was known about the area. It was separated out as a distinct culture and we continue to live with this same idea because in reality I'm wondering if it's...are we dealing with, say, differences at a level of cultures or are we dealing with phases. Is this a phase of Dallas? And you could get equal amount of diversity if you went farther up the river. Do you understand that?

POLHEMUS - Well, there's much more uniformity in the rest of...

HALLY - In the rest of Dallas?

POLHEMUS - ...the east Tennessee Dallas area than between any segment of it and the Hiwassee Island, Mouse Creek sites.

HALLY - Has anybody drawn that stuff together, the ceramic counts and so on, for Dallas sites throughout that zone and then compared to the Mouse Creek counts to document what you just said? Maybe it has been, I don't know...

POLHEMUS - No, not in a formalized manner, no.
HALLY - I think it should be done at some point. This Mouse Creek sticks in my craw. I can't...

[LAUGHTER] It's too anomalous.

SHAPIRO - So the research question, the question out of all that is to find out the variability within...

HALLY - Dallas.

SHAPIRO - ...Dallas is greater than the variability between Mouse Creek and Dallas.

HATCH - Dick, did you not want to comment at this point about what you told me this morning about the simultaneous appearance of Mouse Creek in the Hiwassee drainage and simultaneous disappearance of similar materials in the Cumberland?

POLHEMUS - Carbon dates from the Averbush site in the Nashville Basin which is the most completely excavated middle Cumberland site that's been worked--almost a total burial population, about 800 individuals, and nearly 35 percent of the town were excavated. The architecture for the later part of the Averbush occupation is of the same form that one would call Mouse Creek in east Tennessee--wall trench entry ways, recessed floors, rectangular single-set post construction with four main roof supports, infant burials only within structures, extended burials. The carbon dates for this are in the 1480s which in my opinion is about when the Hiwassee River Mouse Creek shows up. We need some more work on some of the sites like Ledford Island and get some decent samples to tie down the chronology a little better before they're totally honeycombed.

HALLY - That house form is found...is characteristic of probably most Piedmont Lamar, certainly characteristic of Dyar phase. Right Marvin? And it characteristic of Barnett phase.

POLHEMUS - It's almost a pan-interior-Southeastern later-style house form.

HATCH - What about the ceramics of Averbush compared to Mouse Creek?

POLHEMUS - Predominantly plain ware, effigies, effigies facing in, burnished black, shell tempered material. Colanders are present in both areas.

HATCH - I guess what I'm asking is could you look at the assemblages and say it's all the same or...

POLHEMUS - I think so, yes. And another non-ceramic artifact, deer and elk astragali--dice--occur in both areas and don't occur in Dallas. This particular style of dumb-bell shaped shell ear ornament is characteristic of middle Cumberland shows up on the Hiwassee River Mouse Creek sites. In the middle Cumberland area they're sometimes made out of stone or ceramics in addition to shell.

KOWALEWSKI - Richard, does that suggest that there is no firm Southern Appalachian Mississippian boundary on the west?

POLHEMUS - Well, I guess it depends on one's definitions of the Southern Appalachian Mississippian.

SMITH - Richard? I notice on your chart down on page seven you don't talk about D'Armond Incised for Mouse Creek. Is that absent or very low frequency, because that would seem to be a sort of a pan-Lamar sort of incising, but in this case shell-tempered. That might be an argument that this isn't a local group making it north and south of that on the Tennessee River.

POLHEMUS - It's a very low frequency in relation to the more narrow-line hachured triangle-type material that you get primarily on jars.

KNIGHT - What's the design on D'Armond? Is that something we all know and I don't?

SMITH - It's Lamar Bold Incised on shell tempered pottery.
POLHEMUS - Especially Lamar Bold Incised on shell tempered paste.
WILLIAMS - Variety D'Armond.
MILANICH - I told you guys not to tell him.
WILLIAMS - Well, let's go ahead here. We're...our time is slipping up on us and I think that we ought to move right on now to the problem of Mouse Creek in the Hiwassee Valley down to where the term Mouse Creek has, from time to time been used, at least in northwest Georgia. Dave, do you want to go ahead and start talking about...a little bit about what's going on in the upper Coosa?
HALLY - I'm fascinated with this box of Mouse Creek pottery. [LAUGHTER] Well, it looks just like Barnett.
HATCH - That's right.
PAT GARROW - Thank you, David.
HUDSON, SHAPIRO - [LAUGHTER]
HALLY - Well, we just pointed out the houses are the same.
WILLIAMS - So you do see a strong similarity in looking at the stuff?
HALLY - Well, I mean they're pinched rims, folded rims, appliqué rims, whatever you want to call them, they're here. There's lots of comp stamping that's, you know, the same...
POLHEMUS - What's the site number on there? It should be BOI13 (?)
HALLY - Yes, which one is that?
POLHEMUS - That's the Ledford Island site. The box of non-shelled tempered is about probably 25 percent of all the non-shelled tempered stuff in the site.
WILLIAMS - In other words you pulled all the stuff that would make it look like...
HALLY - Is this representative or not?
POLHEMUS - Out of 25,000 sherds from that particularly site there are a few hundred non-shell tempered.
HALLY - So, the rest would look like this Dallas box here?
POLHEMUS - Principally plain.
HALLY - Shell tempered plain?
POLHEMUS - Shell tempered plain.
HALLY - Mississippi jar forms with handles, effigy rims on bowls?
POLHEMUS - Straight edged? jars, effigy bowls, black burnished shell-tempered effigy material...
HALLY - I just wonder if we're not dealing with sort of a spatial continuum here with Barnett being typologically and geographically at one end of the continuum and this stuff being at the other end.
WILLIAMS - Why don't you elaborate just a little bit on what you mean by Barnett, so that we...everybody can catch up with you.
HALLY - I just assumed everybody knew it. Yes, it was presumptuous. Well, it's...in the late 60s working at Carter's Dam in northwestern-most Georgia, at the Little Egypt site, I recognized two components, two phases of...that I called Lamar, phases of Lamar culture. Little Egypt phase, the earlier, stratigraphically earlier. Some carbon 14 evidence for it being earlier and then the Barnett phase which is a little later. And I date them roughly 1400 A. D. for Little Egypt and Barnett little...mid 1500 and later. They are equivalent to what we are calling elsewhere in Georgia, early Lamar and late Lamar in terms of time and in terms of ceramic characteristics. These phases...the Little Egypt phase has some of the classic Lamar ceramic characteristics,
predominantly grit-tempered paste, early forms of the pinched rim, folded pinched or appliqued pinched rims, complicated stamping...motifs that you could probably find elsewhere if you could recognize them if you can distinguish them on the sherd, but the complicated stamping looks very much like Lamar complicated stamping elsewhere. It tends to be crisper than the later Barnett phase stamping. What else can I...no Lamar Incising, although when I defined it, Little Egypt phase, I didn't think there was any incising there, Lamar Incising there. I never could be sure and I think now, knowing what we know from Wallace Reservoir, for example, there probably is some Lamar Incising, an early form of Lamar Incising. But it's very uncommon.

So that's distinctive of the Little Egypt phase...very little, if any Lamar Incised. Also distinctive of Little Egypt phase then is the abundance of shell-tempered pottery, which as I indicate, 81 percent of the, 65 percent, of the pottery is shell-tempered. And that includes Dallas, what I call Dallas Incised, which is very much like what's going around here, from the Dallas culture, jars, plain surface jars with the handles and incised, rectilinear incised motifs on the shoulder or neck. I forget which, where it is. Also some, a lot of cord marking in fact, let's see, 7 percent of the pottery is cord marked, shell-tempered cord marked at Little Egypt so I call that McKee Island for lack of a better name for it. That is followed then by Barnett phase in which the appearance of abundant Lamar Incised pottery is one of the important new things and the second important new element is the decrease in shell-tempered pottery, although as I indicated, 26 percent of the pottery in Barnett phase is still shell-tempered. There's the folded rims, the stamping that seemed to develop out of the earlier Little Egypt phase features, Dallas Incised is still present and it seems to...in fact, I can't distinguish it...if you showed me a sherd with Dallas Incised I couldn't tell you whether it came from Little Egypt or Barnett phase. Quite a bit of continuity there.

WILLIAMS - You don't get changes in the number of incised lines on a pot then, from...
HALLY - for Dallas Incised?
WILLIAMS - Well, for Dallas Incised it doesn't change at all?
HALLY - Well, I never looked at that.
WILLIAMS - You mean, though, that Lamar Incised does? Oh there's none in the early one, that's right.
HALLY - Well, I think there is, it probably what you know what I'm... If we have incising in the Little Egypt phase it's probably two lines maybe three lines that go around the vessel and every now and then they loop down or do a festoon down like that and go on and maybe and effigy above that festoon.
WILLIAMS - But that's separate from the Dallas Incised?
HALLY - Yes, that usually occurs on bowls, usually grit-tempered bowls, in fact carinated bowls and it's, you know, it would be Lamar-like; Dallas Incised it's typically shell-tempered and almost always on shell...on jars, Mississippian jar forms with handles. And then in Barnett phase, the Lamar Incising increases in frequency and you get a greater number of incised lines carrying out motifs.
SHAPIRO - It makes me wonder if you don't have a situation where in the earlier phase there's a greater proportion of things that look like they're more Middle Mississippi. You've got more shell-tempering. You don't have the Lamar Incising and then the next phase, it looks like there's a lot of affiliation in terms of the pottery with stuff to the southeast, to the Atlantic drainage stuff we
call Lamar. I wonder when that happens, and if it's about the same time that it happens it
Apalachee. There's a shift from having a lot of pottery that similar to the western stuff and then
later having a lot of pottery that's more similar to central Georgia.
WILLIAMS - Well, it does happen about the same date.
SHAPIRO - I'm sorry.
G. SCHNELL - Central Georgia or northern Georgia?
SHAPIRO - More northern Georgia.
G. SCHNELL - More like the Chattahoochee.
SHAPIRO - Right.
WILLIAMS - Central like right here.
G. SCHNELL - Yes, well, I was thinking of where he [Shapiro] was with the Apalachee would be
north and south along the drainages, you know, the easiest mode of travel, that's all. But I know
the feeling of switching...you may have about switching the emphasis in direction from which the
influence is coming because it's about that time that you start seeing, you know, Lamar influences
coming down into the lower Chattahoochee Valley, too.
WILLIAMS - 1450 to 1480 or so?
G. SCHNELL - I would say go back to 1300.
WILLIAMS - 1300?
G. SCHNELL - A trickle...no, no, excuse me, it's beginning to trickle a little bit of complicated
stamped, you know, you're still getting influences from the south and then by 1400 you're getting a
little more, but still not a line...
WILLIAMS - You're kind of in an intermediate area compared to where they're talking about in
relationship to...if we think of this central Georgia as kind of the heart...
SHAPIRO - There's no reason to...
WILLIAMS - Is there any reason to think about that?
G. SCHNELL - I think in drainages.
HALLY - I would, I think, qualify your question, Gary, two ways. One, the distinction between
Barnett and Little Egypt is an arbitrary distinction. If I had had more time to excavate that site or
if I would excavated it better or if I would analyzed it differently, I think you would find a
gradation, one leading into the other. Okay, it's not, you know...not lock step into a new phase.
And secondly, I'm not sure there's a decrease in shell-tempering by 30 percent or something or
maybe by 50 percent and a new type appears, Lamar Incising, but I don't...I'm not sure that, that
that's really sufficient evidence that there is a strong surge of influence from some area to the
southeast.
SHAPIRO - Well let me ask this...what happens at that time to the north and west and is the
Lamar, is the Barnett phase stuff more similar to the material at that time to the north and west than
it is to the material to the south and east?
HALLY - I'm not denying that there's not an apparent lessening of Mississippian ceramic
influence. That's for sure, okay? I mean...
SHAPIRO - I don't know of any place we have good enough control to say that change happened
quickly or...
HALLY - One thing I find intriguing is that fault line between the Piedmont, Blue Ridge, and
Ridge and Valley seems to be, at least ceramically, a real watershed, a real boundary. And of
course it goes back in the Woodland times, although I'm not sure how significant...and maybe
somebody said that and I missed it earlier, but you know, you have limestone tempered stuff. Jim may have said this, west of that fault line and grit tempered identical ceramics to the east. But throughout the Mississippian period, you have sort of Mississippian influences coming up against that fault line, up against the Piedmont and sort of stopping there. It goes back to Etowah times. Sears’ work at Wilbanks, the Etowah ceramics from the Etowah site itself from the Etowah drainage. You get, you know, a fair amount of Mississippian vessel forms, decorative motifs, decorative treatments, and shell tempered comes up to that fault line and sort of stops and penetrates no more than 10 or 15 miles east of there. And it sort of fluctuates back and forth as to the intensity of those Mississippian influences, that’s...I don’t like that phraseology too well, but,...

WILLIAMS - Oh go ahead.
HALLY - Through abandon to the wind. So I’m not sure that if you look at the Little Egypt - Barnett relationship in that perspective that, you know, that doesn’t lose, that shift towards, shift away from Mississippian, doesn’t lose some of its of grandness that you see in that 500-600 year perspective instead of a briefer one. I think that’s a, to me a very fascinating problem, what’s going on.

SHAPIRO - Well, there’s an edge.
HALLY - Yes, and it’s a very complicated situation because in Barnett you have certain vessel forms that are always shell tempered or almost always and others that are always grit tempered, but there’s a little bleeding over and things like that, it comes right down to splitting the assemblage of vessels into...along that line. It’s very intriguing and what is the mechanism that’s causing that? What is the mechanism that stopped these Mississippian influences from going any farther eastward?

SHAPIRO - We’ve got a couple of papers tomorrow on fluctuations.
HALLY - If the Mississippian jar is supposed to be a superior vessel form...shell tempering is supposed to be a superior form of tempering...why does it stop there? How much shell tempering is in Wallace Reservoir? You know...

SMITH - One sherd.

[LAUGHTER]
HALLY - 2 percent? 1 percent?

[LAUGHTER]
SHAPIRO - What percent is that?
HALLY - And Lew tells me that at Etowah that there is shell tempering in the Etowah component there, in the Savannah component, but not nearly as apparently as common as at Wilbanks. Isn’t that correct?

LEWIS LARSON - There’s none in Wilbanks.
HALLY - None at Wilbanks? I didn’t say that.
LARSON - Oh, you’re talking about the Etowah site.
WILLIAMS - Let me just make this clear. Your sequence is based on Little Egypt, right? The type site for both of those phases is Little Egypt?
HALLY - Yes, yes.
WILLIAMS - Okay.
HALLY - Potts Tract is where the Barnett phase first occurred and was recognized.
WILLIAMS - What is before Little Egypt on the chart? I mean, we...is it just that we never named anything by all of Doc’s Bell phase...Bell field...
**HALLY** - It would be, I think it would be the stuff from the Bell Field site, but you know, he only excavated in the mound and pretty much in the summit of the mound and you know, some of those Mississippian mound sites tend to be pretty clean. And he got, you know, four or five dozen sherds from 8 seasons of field work. That's just not much pottery. It looks sort of like what you would expect. There's a lot of Mississippian stuff. There's shell-tempered cord-marked stuff.

**WILLIAMS** - Does he have any Hiwassee Island like stuff?

**HALLY** - There's a little Savannah River looking material, Savannah phase stuff in there. Now if you go before Bell Field, you get to his Sixtoe Mound site and there of course, you’ve got a good set of late, middle late Etowah component there which is predominantly shell-tempered and limestone tempered complicated stamping...two-bar diamonds, ladder-based diamonds, all that stuff. And that would be like Hiwassee Island because I think there is some negative painted. Frank, you dug there. I've never really looked at that stuff. Do you have any impressions of the Sixtoe?

**F. SCHNELL** - I don't remember any negative painted.

**HALLY** - Maybe not, yes. I think the complete sequence is in the Carters Valley there, but Bell Field, because of the way it was excavated and so on, is sort of missing in our knowledge.

**F. SCHNELL** - There was Hiwassee Red on Buff there.

**HALLY** - I didn't mean to say negative painted, I meant Hiwassee Island Red on Buff, yes.

**POLHEMUS** - That would fit with your...

**WILLIAMS** - Do you have some sherds from your two phases here Dave?

**HALLY** - Yes.

**WILLIAMS** - Beth...

**HALLY** - I've substituted some Mouse Creek!

[LAUGHTER]

**HALLY** - Did I finish what I said at the very beginning when you said define those two phases. You know I wonder if we're not dealing with a continuum with the Mouse Creek end of the continuum much more Mississippian and the Little Egypt end of the continuum much more...and the Barnett end of the continuum, much more Lamar type thing. I wonder if it's not more of just an age-area, culture-area type of thing where you just as you go farther north it gets gradual ceramic change.

**WILLIAMS** - You see a continuity through time within that area though?

**HALLY** - Oh yes, yes. Maybe Mouse Creek shouldn't be derived from the Cumberland.

**WILLIAMS** - Well, what about comparing Barnett with...

**HALLY** - I mean it has direct relations to the south to this area.

**WILLIAMS** - ...the Cumberland.

**HALLY** - Pat's been saying this all along, that...

**WILLIAMS** - If you compared Barnett to Cumberland do you think you would see the same kind of similarities that you think you're seeing, Richard, from Mouse Creek in the Cumberland?

**POLHEMUS** - Well, that would be an interesting exercise. I would like to see an actual comparison, but I think we should treat that little cluster of sites on the Hiwassee separately from sort of generalized Mouse Creek on the main Tennessee and Barnett to the south.

**WILLIAMS** - Did you have, Dave, Barnett and Little Egypt in clear stratigraphic associations at the Little Egypt site or was it more kind of, it was...which was it?

**HALLY** - What was it?
WILLIAMS - Was it mound stages? And ceramic...
HALLY - Yes, in some cases it's mound stages. Yes, I had...I never had a pure Little Egypt phase stratum, because it was early and there was almost always some intrusions of the later stuff. Now I had some pure Barnett phase material because I had some house floors for example that were placed in an area that had never been occupied by Little Egypt material. So there's always the question, for example, that I can't deal with is the difference between Dallas Incised between Little Egypt and Barnett. I just didn't have the stratigraphy to pin down that, those shades of difference. And also the question of whether there's Lamar Incising in Little Egypt. If I would had a little bit of stratigraphy for the Little Egypt phase, I could have handled some of those, what I think are relatively minor questions.

WILLIAMS - Well, if we're down to minor questions I guess it's time to move on into the Piedmont and let Dean talk a little bit about Joe Caldwell's sequence at Allatoona.

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BEGIN TAPE 2, SIDE 1

DEAN WOOD - ...it might tie down to very much. All of this work, this chronology was built in the late 1940s, before Allatoona Lake was flooded. It was on the Etowah drainage and I would expect that there should be some adjustments in perhaps the Etowah period and particularly as you get into the Stamp Creek and Brewster phases where they're the local representatives of Lamar. We don't have it tied down very good and again, most of this is based upon Caldwell's work along with Carl Miller when they were doing the river basin salvage work at Allatoona in the late 40s. There has been really no, not much work done in that area since then. We've just completed a fairly large-scale survey of the area, but we don't have a lot of pertinent data to change very much. We did no excavations and basically what we do see though in the Allatoona area along the Etowah River and it is strictly Piedmont and going back to what Dave was just saying about this boundary...the very pronounced geographical and geological boundary between the Piedmont and the Ridge and Valley. The Allatoona area starts right at that boundary and goes to the east, so it's strictly Piedmont. And it is quite different than what you would find to the west as you get into the Rome area around the Coosa drainage, quite a bit different. What we see in the Etowah area is a very good continuum from very late Woodland into late Mississippian of stamped pottery tradition. Most of the ceramics are stamped. Most are complicated stamped. A lot of it is rectilinear. They grade into one another. It is very difficult at this time without a lot of C-14 dates to put these lines in here, but nevertheless there are some lines in there. As you can see they are all dotted too. That makes me feel a little bit better.

WILLIAMS - I think we would all prefer to have dotted lines.
WOOD - Never put a solid line anywhere. You'll be sorry later.
SMITH - Are those your dates, Dean?
WOOD - Those are my guess dates where things might have...Caldwell really has no firm dates at all.
SMITH - I was thinking he proposed some dates maybe in that Early Georgia article.
WOOD - Well that's possible, too, but what we're dealing with here is, most of this material is from the Stamp Creek site of which we have no, to my knowledge, no C-14 dates.
WILLIAMS - Is that the type site for this, most of this sequence?
WOOD - That's the type site for the Stamp Creek and the Brewster phase. Of course, Wilbanks comes from the Wilbanks site, that Sears excavated and in the Allatoona area that's the only place that Wilbanks is represented. The difference between Wilbanks and Savannah is one that is probably not resolved at this point. I have decided to put a slash between the Savannah/Wilbanks. They're probably very close chronologically. In fact, Wilbanks may be a variation on the Savannah pottery itself. They're very, very similar.

SHAPIRO - I wonder how different your Savannah/Wilbanks is from Jim's Wilbanks/Savannah?
WOOD - I'm interested to find out.

[LAUGHTER]

WILLIAMS - Let's talk for just a minute. Let's go ahead and talk for just a minute about the Savannah/Wilbanks thing since, if you look over this chart, there's only one other split one and that's Chad's Altamaha/Sutherland Bluff on the whole thing. Lew what do you think about the differences between Savannah and Wilbanks and can we realistically go ahead and have a Savannah period with lots of different phases of which Wilbanks is one? I mean that's something that a number of us have been putting as a possible way of doing, what are your feelings about it now?

LARSON - Well, I think there's some differences between what I call Wilbanks pottery at the Etowah site and what most people call Savannah. I don't have any problem with the Savannah period, you know, you can cut it anyway you want to. It's simply a classificatory device and, you know, whatever is useful, use it.

WILLIAMS - Dean.

WOOD - The ceramics from the Wilbanks site, and I looked it over a little bit this morning on my third cup of coffee and they seem to be quite similar to the Savannah ceramics with a few minor differences. Particularly in the execution and the addition of certain elements to certain motifs. Execution in Wilbanks seems to be a much broader, a bigger stamp, a bolder stamp. The lands and grooves are larger, while Savannah tends to be a little bit smaller, not quite as fine as the Etowah Complicated Stamping, for instance.

LARSON - Okay, but what I'm looking at is a total complex and I don't see anything like Savannah Plain in the Wilbanks, in with the Wilbanks material, and...

WILLIAMS - Is it 100 percent stamped mostly?
LARSON - Yes, it has nice round rims. It doesn't look at all like the Savannah ceramic complex.
WILLIAMS - As defined at Irene, you mean.
LARSON - Right, or anywhere on the coast.

RAY CROOK - It seems to me that there would be...you could make a good argument that Savannah and Wilbanks should be completely separated. The amount of complicated stamped pottery at Irene is very small. The dominant pottery is Savannah cord-marked and check-stamped. There's virtually no cord-marked Wilbanks. They're two distinctive ceramic assemblages.

WILLIAMS - Well, we have something weird going on, because certainly the material on the Piedmont Oconee and the Piedmont Savannah Rivers are at that time period much more, I guess closely allied with Savannah on the coast than with the Wilbanks. Dave?
LARSON - Well, that's because the drainage of course is to the coast in the Oconee and Ocmulgee, but in the Etowah Valley you're talking about drainage to the Gulf near the Coosa system, the Alabama system.
DAVID ANDERSON - I think it's what you're looking at within the respective assemblages. I've looked at collections from Wilbanks and northwest Georgia area and from materials from the Oconee and Savannah and if you look at the complicated stamped ceramics, they're very similar in many ways, the design elements. Now if you look at things like the incidence of plain, the incidence of cord-marking, then there are differences over the whole complex. And I think those of us that stress the similarities are looking at the concentric circle motifs, for example, the similarities among the comp stamped designs. Those of us that are stressing the differences are looking at other aspects of assemblage.

LARSON - No, I'm looking at the total complex, not just a single part of it.

ANDERSON - Well, I think that one solution that Dave Hally has proposed is to talk of a Savannah culture with variance over the South Carolina through pretty much of Georgia area and just recognize that there's a lot of diversity within this larger, whatever you want to call it culture may not be an appropriate term.

WILLIAMS - Maybe it makes sense, since we were just talking about the rapid changes because of the boundary area, since Wilbanks is not on the boundary, close to the boundary area, then maybe it should be a little more distinct and different from all the other interior Piedmont stuff from a similar time period.

F. SCHNELL - You know, my memory is too vague now, but I vaguely recall somebody finding some stuff over on the Coosa River that they said they didn't want to call it Wilbanks, they wanted to call it Savannah, that it was distinctive enough, and I think it is distinctive enough to distinguish them pretty easily, personally.

HALLY - Is that the Plant Hammond mound?

F. SCHNELL - Yes something like that, but I don't remember any more details about it. I agree with Lew completely that this Wilbanks is not Savannah. I remember the first job that Kelly ever gave me when I went to Georgia I was supposed to do something with 12,356 sherds of Wilbanks Comp Stamped, so I became pretty familiar with it and there are obviously similarities, but when you look at it as a whole there really is a distinction.

ANDERSON - Well, it's almost like a horizon that we're seeing that specific comp stamped design we're tending, those of us that look at similarities, tend to emphasize that, but I would agree that there are differences in each area that the upper Savannah certainly is different from the lower Savannah, the northwest Georgia area is certainly different from both in that we need to acknowledge this variability.

F. SCHNELL - Well, my point being that I think there's enough, you know, might work out with varieties on the Savannah River, but I don't know that Wilbanks would be a variety of the Savannah Comp Stamped type.

WILLIAMS - Maybe one of the things that bothers us about Wilbanks is that it's different and it's in a fairly restricted area and there's nothing like it anywhere else for us to compare it to except Savannah and we want to have something like it, particularly since we think it's in a roughly similar time period, but if it's not, it's not and if that's the case, then we should stop talking about Savannah/Wilbanks or Wilbanks/Savannah.

ANDERSON - Well, I think it's going to take the careful comparative analysis of collections over a large area and sitting down, instead of looking at assemblages from three or four different areas, Oconee, upper - lower Savannah and northwest Georgia, what we need to do is sit down with all the ceramics at one time and have one or more people go over them and then draw conclusions.
Right now we're arguing from our strengths in our respective areas and you really need to do a comparative analysis over the larger area.

**SHAPIRO** - We'll have to get the Savannah Institute to discuss that.

**HALLY** - Son of Lamar.

**[LAUGHTER]**

**WILLIAMS** - It could also be known as the Wilbanks Institute.

**DEPRATTER** - If you have the Savannah Institute in Savannah that's really going to confuse the situation because that's all cord-marked and check-stamped a little bit of complicated stamped.

**WILLIAMS** - Dave?

**HALLY** - We may not all be in agreement as to what Lamar is and how widespread it is and whether you want to include certain things in it like Barnett for example or Little Egypt phase, but there's at least as much diversity in the Lamar ceramic complex as there is in what I would call Savannah culture including Savannah on the coast, Wilbanks in northwest Georgia, Beaverdam, your stuff. I just think we're dealing with regional differences and that there are some sort of horizon type markers. I think carinated bowls with burnished plain surfaces with no incising. I think jars without any sort of lip modification. I think the bull's eye, some sort of concentric circle stamp motifs. I think late Etowah motifs, concentric diamonds that are getting the cross marks on them and that are getting rounded, the filfot cross, that doesn't get over into west Georgia too much, but there are a number of things that seem to occur again and again, quite widely. There are regional variations. There's no check-stamping or cord-marking in northwest Georgia. There's no cord-marking on the upper Savannah, but there's check-stamping there. There are no collared rims or corn-cob impressing on the Georgia coast. There are regional differences, but I think we're dealing with something that we ought to emphasize more the similarities than seeing Wilbanks running off into something totally distinct. I think Sears, incidentally, erred in saying whatever, when he dug Wilbanks, every time he found Etowah Complicated Stamped sherds, concentric diamonds, he said, 'oh that's Etowah, put it over there.' By definition, it couldn't be part of the Wilbanks ceramic complex, and yet when you look at Beaverdam ceramics those are late Etowah sherds, late Etowah stamped sherds and they probably do go with the Wilbanks, the curvilinear sherds.

**WILLIAMS** - It's the same thing on the Oconee.

**HALLY** - ...he separated them out arbitrarily. He was predisposed at separating them.

**LARSON** - ??

**WOOD** - Well, let me go ahead and continue a little bit. Let's move beyond Savannah/Wilbanks, Wilbanks/Savannah to Lamar. Lamar in the Allatoona area is very poorly represented. There are a few sites and they tend to be fairly small. They also tend to have no occupation at mounds. For instance, at the Wilbanks site there is a Lamar occupation there, but it is very small, very minor. We have, from Caldwell's excavations at the Stamp Creek site, been able to separate Lamar into an early and a late phase, called Stamp Creek and Brewster. The differences between the two are quite similar to what you see around the rest of the Piedmont, for instance, particularly with the rims during the earlier phase of Lamar called Stamp Creek there are no incised wares whatsoever. Let me back up a little bit. The complicated stamping with both of these phases are very poorly executed so actually delineating motifs, is quite difficult, particularly in the latter phase in the Brewster phase. Caldwell comments to the fact that it's the worst application of stamped pottery he's ever seen, and you can see it's complicated stamped, there's no question about
it, but you cannot determine whether it's curvilinear, rectilinear, or what. It is quite complicated, more than you would expect. Both of these phases have appliqued rim strips. The earliest phase seems to predominantly have nodes, whereas the later phase seems to have pinching, notching, and those kinds of treatments on the rims. Again, let me emphasize that the sites are fairly few and far between. We have just found approximately 1200 new archaeological sites in the Allatoona area. I do not have the exact breakdowns of what we have because we're not even through with the lab analysis yet. Nevertheless, we did not find upland Lamar sites. They just aren't there. The uplands do not seem to be occupied as we find in some of the other areas, like in the Oconee and so forth, with population increases forcing, I hate to use the word, forcing people into the uplands.

WILLIAMS - So there's not very many Lamar sites in the Allatoona?

WOOD - There are few. They're there, they're there and they don't seem to be quite large enough to even be involved with mound building. Stamp Creek has no mound. Wilbanks site, the only mound site in Allatoona, it did have a Lamar occupation, but a fairly minor one. Most of Wilbanks is occupied, surprisingly enough in Wilbanks and Savannah and Etowah, predominantly Etowah.

WILLIAMS - So the real surprising thing there, which is different from what we see certainly in central Georgia, is you have relatively few Lamar sites and then we have Lew's monster site. Lew, how much of the Etowah site is Lamar?

LARSON - It's hard to say, but from about 300 feet east of the big mound over to the edge of the moat seems to be Lamar. It's not a very sizeable portion of it, I would say it's about a quarter of the size, which means we're talking about maybe 10 acres.

WILLIAMS - But it's still a big site to have no little sites anywhere compared to what we have in other places.

SHAPIRO - I think what you might be getting into is an analogy to the Savannah River that a portion of which becomes depopulated about that same time and we may have identified another buffer zone here, this side of the Coosa River.

WOOD - Let me...

SHAPIRO - How about the upper Chattahoochee?

WOOD - Let me put this in as far as buffers go. Stamp Creek is the type site for Stamp Creek phase and Brewster phase. It is a very small site. I don't even know the sizes, probably 2 hectares, perhaps, a small site, nevertheless. It has a palisade around it, oddly enough. So the palisade appears not to belong to Lamar phase, although that's a little uncertain. The palisade was not thoroughly investigated and the postholes in it appeared to, well, they did have Savannah pottery. The main occupation of Stamp Creek is Savannah and let me back up a little more saying that in the Allatoona area there are numerous Savannah phase sites and Etowah phase sites, but Savannah seems to be the height of the occupation and we're just guessing what it around A.D. 1200 and a little bit later perhaps. Again some of these dates certainly will be revised at I hope a future date. So what we're seeing is a sizeable population, even during the Woodstock period. There is a great deal of Woodstock material throughout that part of the Etowah Valley, good population density on into Savannah/Wilbanks, then Lamar seems to be scant. It's present, but we really don't have a good handle on when, or if, for instance, there is an abandonment. I'm not sure that some of this Brewster material might be rather late, but we just don't know, we don't have the dates.
SHAPIRO - How about your incising? Do you have incising that looks like the late Dyar phase stuff, the multiple line motifs, or do they look like the earlier? All right, they have very few lines which at least on the Oconee and also I think on the Georgia coast, you look at a few lines like this and you say that it's early incising.

WOOD - Now how representative those are, I don't know.

SHAPIRO - You have some of this? You have a couple of sherds like that in the Savannah drainage, right?

ANDERSON - Very few.

SHAPIRO - And then there's no subsequent incising.

ANDERSON - Exactly.

WOOD - We don't have fine incised.

WILLIAMS - You don't have multiple fine...

SHAPIRO - Can I pass this around, Dean?

WOOD - Yes, certainly. That's from Brewster.

DEPRATTER - From the Wateree drainage you do have a continuation of very simple motifs and very small number of elements right up to the end.

WILLIAMS - What about the coast?

DEPRATTER - On the coast? It gets more complicated through time, more and more elements, more and more complicated material.

WILLIAMS - Like the interior?

DEPRATTER - Yes.

WOOD - What's being passed around that way is from Brewster and these two here will give you an impression of what I'm talking about complicated stamping. This is it.

SHAPIRO - Looks pretty clear.

WOOD - Yes, it's quite clear. I think the artist took a little liberty with that...

SHAPIRO - He's got his rose-colored glasses on.

WOOD - These would be the earlier phase of Stamp Creek from Stamp Creek phase. There seems to be a lack of very late historic sites until you get to the Cherokee occupation, which would be the late eighteenth century and early nineteenth century, the Galt pottery. It is...

WILLIAMS - Which got left off the chronology chart by the way.

SHAPIRO - What was that?

WILLIAMS - Galt. Compare your chronology chart with your written and the written has a couple of extra phases than the chart does not.

SHAPIRO - Would you tell us where to put that Galt?

WOOD - I would put Galt above 1750 and terminates, of course, on the Cherokee removal, late 1830s. Well documented Cherokee settlements, culturated Cherokees basically living a lifestyle not too different than their European neighbors. Check-stamped pottery is very common, as is the rectilinear complicated stamped pottery. There is a little bit of roughened and a very little bit, a little bit of brushed pottery, no incised pottery with the Cherokee at all. The rims though are quite similar to some of the Lamar treatment. They are pinched and notched. The, tempering agents in the Lamar in the Allatoona is quite different from anything that precedes it. Preceding the Lamar in the Allatoona area we have a basically a sand and fairly fine grit tempering. When we get to Lamar, and also, same thing with the Galt, the tempering agent is a very coarse ground up quartzite or quartz. And it's abundant. It's so diagnostic that some of our plain and very badly
eroded sherds, it's almost gravel. It sticks out of the surfaces of it. And it's very distinctive. Unfortunately for the Brewster phase and the Galt phase the...some of the smaller plain sherds are somewhat indistinguishable because of the heavy grit tempering in both Cherokee and the and the Lamar.

WILLIAMS - Well...

SHAPIRO - May I make one comment?

WILLIAMS - Make one quick comment and then we need to move ahead.

SHAPIRO - In terms of the chronology chart, I apparently left Galt off the top and that brings into question the line between Brewster and Galt and I would guess, based on other drainages and the few elements of incising in those incised lines, if that's representative, that you might be able to put that, put Brewster a little bit earlier on the chronology chart, maybe 1500 or earlier, to correspond with say, the Georgia coast, the same progression of motifs and with the Oconee Valley the same...

HUDSON - Brewster's earlier than 1500?

WOOD - It's possible that it ends earlier than that, again...

SHAPIRO - We don't know. That would be my hypothesis.

WOOD - I want my lines to be very dotted. Let's erase them as a matter of fact.

WILLIAMS - Let's don't worry about it.

WOOD - What would, you know...the emphasis I want to make is that there appears to be a period of time prior to the Cherokee occupation when conceivably no one is in this particular area.

SHAPIRO - That's great.

HUDSON - What my question gets at is the time of the DeSoto entrada. Do you feel that it was occupied at time in 1540?

WOOD - I think it's possible there were people there.

WILLIAMS - A few.

WOOD - I would think a few. That's similar to...what happens when he comes to Etowah? There are folks living there. And I suspect, perhaps even Stamp Creek, Wilbanks site, some of the other Lamar sites could very well have been occupied then, but I don't know. We have no C-14 dates and we have very little excavated material.

WILLIAMS - But it was past it's glory?

WOOD - I would think so.

SMITH - Is there any shell-tempered material in Brewster phase?

WOOD - Shell tempered...in Brewster?

SMITH - Could that be the difference between Brewster and Barnett?

WOOD - Shell tempering or limestone tempering are present in, from Etowah through the Wilbanks but very uncommon, very ... 

SMITH - It's definitely different than Barnett phase.

WOOD - Yes, very much. In fact the Lamar has no shell tempering whatsoever.

WILLIAMS - Okay, we're going to move down the river now, and back to the middle Coosa and we'll let Jim Knight tell us about what's going on in the western periphery of what we seem to be talking about.

KNIGHT - Let me start by saying that by far the most important kinds of Lamar that exist are in Alabama. [LAUGHTER] I'm being facetious, but the reason I say something like that is because I've seen treatments of distributions of various kinds of things in Lamar that sort of tend to stop at that Georgia border and I think really a lot of people don't realize that it's very common all the way
into central Alabama and not only that, but there are several different distinct geographical kinds of Lamar that exist over there. And I also say that because this is really the area where Creek material culture developed indigenously right out of Lamar in several places, which accounts for the different geographical variation in eighteenth century Creek material culture in various places. It's all accountable to the different parent Lamar cultures that it developed out of. I can remember back when I first got interested in some of this stuff back in the mid 70s I guess, maybe the early 70s. At that time people were batting around the idea that since there wasn't any direct continuity here at Ocmulgee between Lamar and Creek, well that was somehow extremely important and maybe the whole connection between, that Fairbanks had always talked about, between Lamar and Ocmulgee Fields was spurious. And a lot of people were seriously considering that at that time. It's probably an anti-climax for me to sit here and say well Fairbanks was right all along and the place it all happens is Alabama. But that's the case. He was right on almost everything he said about the stylistic development which he was just speculating on based on pure stylistics.

WILLIAMS - Even the brushed stuff coming out of complicated stamped?

KNIGHT - It gradually replaces complicated stamped in various places in Alabama on the same forms and in with cob-stamping.

WILLIAMS - Do you have some vessels that are both?

SHAPIRO - Hee. Hee.

KNIGHT - No. [LAUGHTER] Not that I know of anyway, but I wouldn't be surprised in some of these complexes like Kymulga to see such a thing. They are just different techniques of roughening and especially to the supposed evolution from Lamar Bold Incised to Ocmulgee Fields Incised, is very well demonstrated now in several different places. That continuity is real and it occurs in at least four different places in slightly different ways. Let's see, there are 1, 2, 3, 4, 5 different geographical kinds of Lamar that I can identify on my map just by looking at it that are in Alabama. Two or three of these we share with Georgia and one of them is Barnett. The other is Bull Creek which we really ought to get Frank to comment on, on the Chattahoochee River.

WILLIAMS - We got to get Frank's comments stuck in here later this afternoon somewhere.

KNIGHT - There's one other little circle I've got drawn on my map that probably ought to be here which would go below your Number 5 and 6 on your chart. This is the lower Tallapoosa, which is the heartland of the Lower Creeks other than, I mean heartland of the Upper Creeks, which has it's own Lamar development and the Lamar culture there is called Shine II. Shine II develops directly into the local Tallapoosa phase of Ocmulgee Fields via Atasi, which are some intermediate phases that I've talked about in the past. So we have Shine II on the lower Tallapoosa. On the upper Tallapoosa, which I'll go ahead and talk about we've got something that I called the Avery complex a long time ago and it was probably a bad mistake. But anyway there's a distinctive kind of Lamar up there. The reason I called it Avery was based on a comparison with nothing but whole pots from the Avery mounds, not a very good basis for any sort of statistical comparison, but they did seem to be similar to me so that was the closest thing that I knew of. It still may turn out that there is a strong relationship between that part of the Chattahoochee and the upper Tallapoosa because they're very close, but what we'll need there is to have some better controlled collections and maybe an analysis of the Avery mound might help on that...of all the rest of it. Over on the central Coosa we have the Kymulga phase, I've been calling it lately, based now upon a couple of excavated sites, actually.
It used to be based on surface collections, but we have an excavated site now that's being, that has been written up by Roger Nance and another one in the process at Hightower Village. The Kymulga complex is late as far as I can tell, although we have no radiocarbon dates for it. It is much like Barnett, in almost all respects except for an abundance of clay as temper. I had called it grog at one point, but I don't think, it's not grog in the same sense as Lower [Mississippi] Valley kind of crushed potsherd. It's just light colored clay inclusions used as temper. I don't know what that is, but it's characteristic of Kymulga and not of Barnett. The Kymulga phase lasts on into the seventeenth century based on trade goods at Hightower Village where it's replaced by kinds of things that had been called McKee Island in the past, but I steer clear of that now. And names like...

WILLIAMS - Why?

KNIGHT - Well, McKee Island was defined in the Tennessee Valley and it sort of spread all over the place since then and been applied to things as late as eighteenth century material culture, Creek material culture at Childersburg. It just covers too much time and space. What that McKee Island term really is referring to is the tail end of Dallas further south. So I prefer to use local phase names like Woods Island and Weiss for that kind of seventeenth century McKee Island looking stuff, all of which develops directly into the local Creek material culture, as I said of the eighteenth century, where we have the Childersburg phase in the middle Coosa which is Coosa Town...Childersburg site is Coosa Town of the, part of eighteenth century. I know of no comparable development on the upper Tallapoosa, but we really don't know much about what comes either before or after the Avery complex over there. We have really only two good excavated sites on the upper Tallapoosa. There are a couple of trends I see that sort of tie all these Alabama phenomena together along with, maybe Barnett and Bull Creek too, for that sequence on the Chattahoochee. One is that the incising sort of differs from all the rest of Lamar that I know about, in that it has, and this is a really vague and subjective way of putting it, but I'll do it anyway, it has sort of a Gulf orientation to it. The incising has a lot of nice curvilinear elements to it...interlocking scrolls, guilloches, running scrolls, a lot of punctation used to fill up spaces. And I'm not sure I'm right about this at all, but that does seem to be characteristic of all of these Alabama, or western forms of Lamar.

HALLY - Lack of background lines to fill in the motif. That's Lamar like and you don't have that. The design is much more open.

KNIGHT - That's true. And I also see in all of the rest of Lamar a much more austere kind of geometric aspect to it that I really don't see...

WILLIAMS - Do you have any of these ceramics here?

KNIGHT - Yes, I brought some, but they're not here yet I'll get them out later.

WILLIAMS - Okay.

LARSON - What's the difference between Kymulga and Childersburg? The ceramics? Is it the absence of the adornos?

KNIGHT - Well, you defined it. You just don't remember.

[LAUGHTER]

SHAPIRO - What was the question?

LARSON - Well, I always thought they were the same. That was what...

KNIGHT - No, the Kymulga pottery does have a complicated stamped pottery with it whereas the later eighteenth century Childersburg stuff...a lot more black burnishing in Kymulga, it's more
Lamar-looking basically. Both of them have shell-tempering. Well the other trend that I wanted to point out was this business of, you know, that's been battered around is being Mississippian influence up on the northern and western periphery of the Lamar core area I guess. One might...well first of all, shell-tempered pottery is an important part of every single one of these complexes that I've been talking about in Alabama. It varies but everyone of those complexes has some amount of shell tempered pottery in it. And one might be inclined to attribute that to being on the west edge, to being close to things like Moundville. But that's not true at all. There's almost nothing related to Moundville that has anything to do with any of these Lamar complexes. There's no cross-over at all as far as I can tell. And all of these shell-tempered Mississippian-looking elements that you do get in these things are directly attributable to Dallas. SHAPIRO - Well, the Dallas has Mississippian-looking vessel forms and so does the Little Egypt stuff have a mixture of Lamar vessel shapes and typical Mississippian vessel shapes with these wide strap handles...

WILLIAMS - Maybe our problem is what is typical Mississippian, if it's not Moundville...

KNIGHT - Well, if the choice is between Dallas and Moundville, well, the choice, the right answer is Dallas. That's all I'm saying.

WILLIAMS - Right.

JOHN SCARRY - There's no Lamar, there's nothing from Chattahoochee or the upper Coosa at Moundville, either.

KNIGHT - That's true, that's true...it works both ways.

SCARRY - Everything's south and west.

KNIGHT - Yes. And there's almost, there's nothing Lamar related in any of the later stuff further west, either. Alabama River phase, seventeenth century stuff is totally distinct from all of this. But that sort of Dallas connection is not only interesting, it's very pervasive even as far south as the lower Chattahoochee, where it gives rise to some of the interesting things in the Abercrombie phase for example and the Blackmon phase, which comes after it and the use of appliqués and little human head adorns and cord-marked shell-tempered pottery and all of that sort of thing. By the way cord-marked shell-tempered pottery doesn't occur in Moundville where it does in Dallas. That's another one of those kinds of things. That's just interesting, I don't why.

HALLY - One thing distributionally the Etowah drainage at the Etowah site, there's not nearly much Mississippian, Dallas Mississippian material there, for example, Lew and I were looking at Lamar pottery from the village at the Etowah site last week and it looks just like Barnett, except just maybe no shell-tempering. Okay? And the earlier Etowah and Savannah components at those sites have a little bit of shell-tempering, but not nearly as much as, say, Kelly got at Sixtoe and so on. So as you move south, at least along the fault line, those Mississippian influences seem to drop out. So, I don't know, it's a sort of narrow corridor down which those Dallas...yes, yes...

KNIGHT - It's a sort of like, I don't know, you see pots floating down the river.

WILLIAMS - Jim, how do you use the term Mississippian then? Do you apply it all to this Lamar stuff or do you apply it to the Moundville stuff, or do you apply it to neither or do you apply it to both?

KNIGHT - Oh, boy. Are you asking me what Mississippian is?

[LAUGHTER]

WILLIAMS - If you care to address it that way, that's fine.

HALLY - In thirty seconds.
KNIGHT - In five words or less.

[SOMEONE'S WATCH ALARM GOES OFF!]

SMITH - Your time is up.

[BIG LAUGHTER]

KNIGHT - All right well, what we were so, the context of all of this Mississippian influence.. what we really mean is, is either/or Moundville/Dallas...shell-tempered pottery and that's all. Obviously what's going on in Georgia at the same time is Mississippian, too in my opinion. We're talking about different kinds, different broad constellations of material cultures that used to be called Middle Mississippian at one time. I don't know how valid that is anymore, but that's what we mean.

WILLIAMS - But the shell-tempering seems to vary independent of everything else we call Lamar, shell and grit tempering. Or do I hear you say it?

KNIGHT - Well, it doesn't, it certainly...I don't know. I'm not sure I quite understand you, but it sure, it certainly doesn't seem to have any significance that you could attribute to vessel function or anything like that. It just doesn't work that way. It varies from, you know, 10 percent here, to 30 percent at the next site and it varies by period in the same region. It's absent altogether further east. So unless, you know, you have anymore questions on that, I'll just close by saying you know that, again, on that, something that Margaret Clayton wrote once in Early Georgia that really stuck out in, whenever it was, was that in no, she said that in no place can we, in no region can we demonstrate any material culture continuity between Lamar and Creek. Now that was fairly recently that she said that, it was mid 70s. The most important thing I guess is that now we can, and not just in one place, but in several and that those parent Lamar cultures account for all of the variation that I know of, with, you know, a few minor exceptions in eighteenth century Creek period culture, including the Creek material culture over here at Macon which is intrusive.

HALLY - Jim? Just one specific question on Ocmulgee Fields as defined right here. Okay. It has a lot...like Ocmulgee Fields Incised is predominantly shell tempered and Walnut Roughened is predominantly shell-tempered, but your phase, your stuff at Tukabachee, for example has very little shell-tempered, so what, what regional variant over there in Alabama of developing Lamar, would you say gave rise to Ocmulgee Fields? That's a stupid question? Do you have any feeling about that?

KNIGHT - Oh, yes, I know exactly what it is. [LAUGHTER] It's, let's see, it doesn't occur on the lower Tallapoosa, it occurs on the Chattahoochee. It's the period right after the Abercrombie phase and right before the early Lawson Field phase. It's called, Frank has called it the Blackmon phase based on the Blackmon type site that I just excavated last fall.

HALLY - And it dates to about what?

KNIGHT - Middle seventeenth century give or take. It's exactly the same complex as occurs here, a little, you know, a decade or so later.

HALLY - Is brushing developing out of complicated stamping everywhere in that region at more or less the same time and about when would you say that's occurring?

KNIGHT - The two overlap. You know again, we've got a terrible lack of hard dates here, but the two seem to overlap in complexes like Kymulga on the middle Coosa, in real early Atasi on the lower Tallapoosa. I'm not sure at all about Avery, but at least over there brushing is definitely becoming an important part of the complex by about the end of the sixteenth century.

WILLIAMS - What about the red filmed, which comes in later?
KNIGHT - Well, that's a entirely separate question. The red...first of all, there's no red, there's no Creek red filming to speak of in the middle Coosa at all, very little in the lower Tallapoosa. This business of Kasita Red Filmed as being part of the Creek material culture is really a Chattahoochee River phenomena. And there it's directly related to Mission Red Film so we have some sort of Spanish Mission connection there that I don't think anyone's ever sorted out. But that's not an indigenous part of the...

WILLIAMS - It's not?

KNIGHT - It's not.

WILLIAMS - So even the stuff that came in over here, right on the Plateau here, is probably Spanish Mission generated.

KNIGHT - It's sort of indirectly derived, I'm pretty sure, I would guess from the Apalachee Mission area.

SHAPIRO - You should look. I brought some Ocmulgee Incised sherds from San Luis, a mission site in Apalachee, 1656 to 1704...

KNIGHT - I noticed you also had some Mission Red Filmed there, and I was talking to Frank yesterday about the difference, if any, between Mission Red Filmed and Kasita Red Filmed. I don't think there is any, so we probably ought to drop that.

SCARRY - There is essentially no vessel form or motif, I don't know about that...

SHAPIRO - Is there a difference in vessel form or motif?

KNIGHT - If anything it might be in ring bases or something like, but I think they're the same.

WILLIAMS - Let's take a 10 minute, is that what we're scheduled for, or 15 minute break. You have to be back at 2:20 according to my watch.

END TAPE 2, SIDE 1
BEGIN TAPE 2, SIDE 2

WILLIAMS - Does anybody need another doughnut or coffee before we start again? I think that what we ought to do first, is, rather than jump right into, since Jim did both of his papers before and after break as one paper, let's take a few minutes and if we have any questions for him or any discussions about Alabama. If...

HUDSON - Why did you omit the Shine II area initially? Why did you omit the lower Tallapoosa?

KNIGHT - I didn't omit it. I sort of assumed that some of our Auburn colleagues would probably be here and...

WILLIAMS - One of them will be here tomorrow.

KNIGHT - Pardon?

WILLIAMS - Greg is supposed to be here tomorrow.

KNIGHT - Okay, but I was hoping he would be here. He didn't make it, obviously. It's a very important area obviously to the Lamar development.

MILANICH - Jim does your line between Moundville and Lamar or whatever you want to call it, how far back in time does that go? Pre-Mississippi?

KNIGHT - It goes at least as far back as Early Woodland. At least a thousand years.

SCARRY - You, I noticed on one of them, you had West Jefferson...

KNIGHT - Yes.
SCARRY - ...as a terminal Late Woodland manifestation at the...
KNIGHT - Right.
SCARRY - ...middle Coosa.
KNIGHT - Right.
SCARRY - How much is that like the West Jefferson area?
KNIGHT - It's the same. This was a revelation to us a few years ago when we started looking at some of the excavated collections from the middle Coosa that had never been written up for Alabama Power Company. There is a very good West Jefferson complex, emergent Mississippian, on the middle Coosa. The only difference I know of is a little more limestone tempering, which makes some sense.
SCARRY - So that you have vessels in all the vessel forms?
KNIGHT - Lots of pots and nice bell-shaped pits and village plans and there's four or five good sites.
WILLIAMS - I think what we'll do now and we can continue with this discussion, probably we'll have to; if we change the schedule very slightly and Frank, if you can make a few comments about the lower Chattahoochee. I think we're a few minutes ahead, so why don't you go ahead and...
F. SCHNELL - Well, do you want to do that or I just have some...
WILLIAMS - As you wish.
F. SCHNELL - Stop here...
WILLIAMS - We'll take it.
F. SCHNELL - My point is, do you want to pass it out and give people a chance to look at it first before I say anything about it?
WILLIAMS - We can do it at the same time.
F. SCHNELL - Well...
WILLIAMS - I recognize that front plate out of...
F. SCHNELL - What?
WILLIAMS - ...that picture right through there, isn't that out of...
F. SCHNELL - What, this?
WILLIAMS - No, never mind.
F. SCHNELL - A couple of people, several people have asked me about that. It has dawned on me over the years that a lot of people have heard of Rood's Incised as named by Caldwell and nothing else done with it except naming it and describing it a little bit in the Rood's report and illustrating the sherds of it...
HUDSON - Could we get some more of those over here Frank?
F. SCHNELL - Pardon?
HUDSON - Could we have some more of those over here?
F. SCHNELL - We're running out. These are not stapled, so they might need to...if you could just pass them around...
WILLIAMS - Do we have a stapler in the house?
SHAPIRO - Could we have a stapler?
F. SCHNELL - Oh, wait a minute. Let me see the bottom of that. [LAUGHTER] I didn't know, I went ahead and made 40, but I only stapled 20 yesterday evening.
WILLIAMS - Well, we can take care of that.
F. SCHNELL - One of the things that's been bothering me for a long time...incidentally, when I'm discussing lower Chattahoochee what I'm trying to cover here in terms of Lamar, basically, is from the Fall Line at Columbus. There is stuff north of there going up between the lower Chattahoochee and Jim's upper Tallapoosa, kind of looks over there on the Chattahoochee a little bit, there is stuff in between there, but I just don't know enough about it to talk about it, but from the Fall Line at Columbus down south I've got this to the Cemochechobee site because there was one sherd on the other side of the river from there of Lamar Comp Stamp, but basically we're talking about from the Fall Line to Betty Broyles's site which never got a name, 9CY51.

WILLIAMS - That's the plate I saw.

[LAUGHTER]

F. SCHNELL - Yes, it was on the bottom I brought a couple of these along in case anyone wants to look at them later. These illustrations are out of the Stewart County report. There's been something bothering me about the Bull Creek phase for a long time in that things didn't quite mesh and not long ago I generated this pure simple percentage chart that's on the top of this thing and it quite obviously broke out in two parts. You've got sites that have a predominance of complicated stamping over plain like Kolomoki and like Bull Creek. And you've got sites that have a predominance of plain over complicated stamping like CY51 and the Rood Site, 9SW1. The more I started looking at it the more it seemed to fit in pretty well into being able to split it up into two phases from a number of standard points in that the Bull Creek phase is pretty much...it has a lot of similarities to central Georgia Lamar with the addition of some of your Florida characteristics in incised and punctating and things like that. It's got a lot of complicated stamping and so forth. This later one, we've played around with names and tentatively calling it a Stewart phase and my chart's on the last part of this sheet here, is what you find on the top level at the Rood Site and Caldwell was taken with the point that there was no, really what he thought of as Lamar Comp...Lamar Bold Incised on the site. There was very little pinched rim incising, practically none. It looked a lot more like he, I think he mentioned Florida connections to it and this replica right here is of the pot that he illustrated in the Rood report for Roods Incised and it's quite characteristic. As a matter of fact if you'll look at Sears' season one report for Kolomoki, he illustrates a sherd of this which kind of gives me a problem in my percentages, but you can see in any number of reports and in the what am I trying to say, not Atasi, but Avery phase, you see this kind of bold incising as well.

WILLIAMS - Hold that thing up a second so everybody can...

F. SCHNELL - Okay. I've got some, as a matter of fact, why don't I hold up the real thing here. Right here, this, this was a display specimen we had in the museum, but you can see it's got this folded plain rim up here with the bold incising below it...

WILLIAMS - It's upside down.

SHAPIRO - Is that a burial urn?

F. SCHNELL - Pardon?

SHAPIRO - Is that a burial urn? The design the lip's upside down and Chester's got a similar thing.

F. SCHNELL - No. It occurs in a lot of places and it continues to show up in the Abercrombie phase in a modified form, but it's exactly the same motif, exactly the same rim form and everything else. Yes, Mark said he had always thought the illustration in the Roods report was put in upside
down, but basically that is the design motif there. And if I'm not mistaken it shows up in Florida some, too...

SCARRY - Yes.
F. SCHNELL - I seem to remember seeing some sherds of it in all of that stuff Yulie Lazarus used to have.
CALVIN JONES - They may have it now, I don't know.
SCARRY - They have weird stuff over there.
F. SCHNELL - So basically what we're talking about is two phases. The Bull Creek phase material...I haven't gotten a chance to get all of this out...tends to be very coarse grit. I've got some characterization in here and I've talked to John about this before and I haven't figured out, it's probably a technological mineralogical reason for it, but it's very coarse quartz grit and it's all, very often has a reddish tint to it almost like garnet, ground up garnet.
WILLIAMS - That occurs here in the Macon area, too.
F. SCHNELL - Oh, does it?
WILLIAMS - Yes, in fact there's some on display over there in that cabinet.
F. SCHNELL - Well, it's very common in this washed surface with almost a coarse sandpaper effect to it.
WILLIAMS - We had it at Shinholser, also.
F. SCHNELL - On the other hand, the stuff from Rood's...here's another Rood's...it's not Rood's Incised like this pot, but it's same kind of thing. It tends to be a much smoother, finer grit, so there do seem to be differences and we can split it up into, like I say, what I'm tentatively calling a Bull Creek phase and a Stewart phase.
WILLIAMS - Where does the name Stewart come from?
F. SCHNELL - Stewart County.
WILLIAMS - Oh.
F. SCHNELL - Gail and I were joking. We got this problem in that John Scarry used up all of our good names for the Chattahoochee. [LAUGHTER] We can't use Walter George and we can't use Clay and we can't...but Stewart fits pretty well. It's a county name. There seems to be a good progression and development from the Stewart phase into Abercrombie. It fits much nicer. I used to tend to think in terms of the Bull Creek site there in Columbus and the Abercrombie site just across the river and there was some kind of discontinuity there that I couldn't figure out but apparently this Stewart phase may fit into that discontinuity. Jim has already mentioned the Blackmon phase, which is basically the same thing as Ocmulgee Fields here except being geocentric it's the parent over on the lower Chattahoochee River of Ocmulgee Fields. You know, I might mention this, and that is one of the things that's a little bit curious is that with the begin...somewhere in this period around 1700, you begin to pick up a little complicated-stamped pottery in association with the latter part of Blackmon and the early part of Lawson Field phases and I've mentioned this to Jim a couple of times. He looks at me a little bit funny when I say it's captured Cherokee wives or something like that, but it does show up on these sites at the Hitchiti site, 9SW50, and at the Coweta-Tallahassee site 1RU11. Both check stamping and crummy complicated stamping, the kind like Stamp Creek where you really can't figure out what it is.
WILLIAMS - As far as figuring out designs, something I, just a total aside here, there's a new kind of...we used a quartz iodine-light, what, I mean a thousand watts and we used that this summer
after we had made preliminary segregations, you can pull out at least twice as many identifiable
designs from any set of comp stamped.  Try that if you like.
F. SCHNELL - Now is it imprinted upon your eyes all day?
[LAUGHTER]
SHAPIRO - You can still see it with your eyes closed.  Frank, the Cherokee wives stuff John just
mentioned sounds very much like Apalachee pottery like beyond Jefferson stuff.  It could be from
down there.
F. SCHNELL - Yes, there is that possibility.  The reason I like it so much is one of good, in
context places we got it is Coweta-Tallahassee and Benjamin Hawkins talked about the Cherokee
wives that were living there.
KOWALEWSKI - Frank could I just ask a couple of those basic questions that Mark asked
earlier?
F. SCHNELL - Yes.
KOWALEWSKI - How much of this is stratigraphic?  The sites that you mentioned, are the type
sites?
F. SCHNELL - Yes, the sites that I mentioned are basically the type sites.  I don't have any good
stratigraphic separation between...for this Stewart phase.  It's strictly something pretty recent
based on seriation and trying to figure out some sort of continuity that should be there.  We've got
good stratigraphy going from, I think, probably from Rood's into Singer into Stewart at the Rood's
site, but you can't really demonstrate it with the amount of work that was done there by Caldwell
simply because of the fact he spent so much of his time on the top of Mound A and so little getting
good stratigraphic material.
WILLIAMS - Do you think that there might be stratigraphic sequences on the northeast edges of
some of those Chattahoochee Valley mounds?  Has there ever been any work to find if there is or
is not since we've got such good...
F. SCHNELL - As a matter of fact, the northeast edge of Mound A at the Singer site was tested...
WILLIAMS - Yes.
F. SCHNELL - ...and it's got a good dump there that you might be able to get some sort of
sequence out of.  Gail might want, is she here?
(?) - No.
WILLIAMS - Where's Gail?
F. SCHNELL - She's recently been looking at the Singer material again and getting back to this
Wilbanks business, there are very few complicated stamped sherds, very few, incised sherds from
the Singer site.  In other words, I used to think of it as the beginning of Lamar, but it's beginning to
look more like the end of Rood's.  But the thing that struck me the other day, and the sherd is in
here somewhere, we were hunting for an example of complicated stamped to bring to the meeting
from the Singer site, and I only picked up one and two things immediately struck me.  One of
them is it looks almost identical to a sherd that Dean sent me from the Carmouche site on the
Upatoi Creek and the second was that it suddenly dawned on me that except for the motif it looks
almost exactly what I used to think of as a Wilbanks Complicated Stamped and I think it may be
something well worth investigating in some more depth, if what you've got is the top of Mound A
at Singer may well be contemporary with Wilbanks and it fits in nicely with our radiocarbon dates
and so forth.  We have a radiocarbon date from the top of Mound A at Singer of 1390.  So it
works out pretty well.  In terms of relationship to Alabama, I think Jim has covered it pretty well.
There's one other thing I want to mention and I don't think we have time enough to do it now, but I have some slides with me. They're slides of pots from the Neisler site that I presume Fairbanks restored for Neisler. They're good, pretty good jobs of restoration done back in the 30s. And they're much more like central Georgia Lamar than they are like lower Chattahoochee Lamar. Now what that en...

SCARRY - Is that where the dog came from?
F. SCHNELL - Pardon?
SCARRY - That's where the dog came from?
F. SCHNELL - Yes, right, and...
WILLIAMS - Dog pot. Have you got them ready to throw on there let's look at them.
F. SCHNELL - If you want to do it right quick.
WILLIAMS - We got five minutes.
MILANICH - He thought you would never ask.
[LAUGHTER]
F. SCHNELL - I think what...
[NOISE AS CHAIRS ARE MOVED ABOUT]
WILLIAMS - Ken, would you flip the light?
F. SCHNELL - I'll run through these pretty, oh thank you...I'll run through these right quickly. The first of these are slides of restored pots and so forth from the Bull Creek site. These were the ones that were over at Ocmulgee for many years. That one is not, that's one I excavated in 1955 at Bull Creek site. You can see how coarse the tempering is and so forth in these. I'm just going to run through these quickly...
WILLIAMS - And these are from Neisler?
F. SCHNELL - No, these are all, these are all from Bull Creek except this one right here which is in the Heye Foundation. I'm going to run through these quickly. This is all Rood's material, I mean Bull Creek material.
(?) - Not quite that fast.
(?) - Wait, wait.
(?) - Whoa!
F. SCHNELL - Do you want me to go faster or slower?
EVERYONE - Slower!
WILLIAMS - We've got five minutes.
F. SCHNELL - I was wondering about the time element.
WILLIAMS - We've got five minutes.
F. SCHNELL - Oh, okay, well basically there are three of the dog effigy pots from the Bull Creek site. All of them very similar as you can tell from the others that I showed you.
WILLIAMS - Back up one more.
F. SCHNELL - Now, the one from Neisler is a little bit different.
WILLIAMS - That's it?
F. SCHNELL - You see it's exactly the same idea and the same motif, but the execution is a little bit different, but there's a lot of similarity.
WILLIAMS - That's a tall neck on it.
F. SCHNELL - Yes, a very tall, thin neck.
SCARRY - Are carafe necks like that very common? They're not are they?
F. SCHNELL - No, most of the ones, all of the ones from Bull Creek as you can see have rather broad necks to them these are the three from the Bull Creek site. And as you can see, something that I keep trying to emphasize, if any of you have ever seen pictures of the dog effigy vessel from Cemochechobee, there's a vast difference between it and these. They're all dogs, but that's about it.

DEPRATTER - It looks like a bud vase.
F. SCHNELL - This is a vessel in the museum that came from the Neisler site right here. Another, this all is part of the collection of the descendant of Neisler and it's on loan to the museum. These that I'm showing you now, ones that were apparently restored over here in the 30s or something. This is, just happens to be one from the lower Flint. Basically that's what I wanted to show you, though, is this material from the Neisler site, the Lamar component there at Neisler and as you can see...

HALLY - How about the Bull Creek vessels that you showed at the first, could you run through them again?
F. SCHNELL - Pardon?
HALLY - How about the Bull Creek vessels?
F. SCHNELL - Oh, okay, sure.
SHAPIRO - Frank do any of your vessels on the Chattahoochee have flat bottoms?
F. SCHNELL - Practically none that I can think of, I mean, you mean in terms of Lamar pottery and so forth?
SHAPIRO - Real, right, real Lamar bowls with flat bases. That seems to be a uniform characteristic...
F. SCHNELL - They're always rounded or sub-conoidal?
SHAPIRO - ...you get into central Georgia and they're all...
F. SCHNELL - This, this particular one that I skipped over is in the Heye Foundation and it's labeled as being from Muskogee County, Georgia. That's all I know about it. It probably came from a site about a mile and a half or 2 miles south of the Bull Creek site.
WILLIAMS - That's complicated stamp beneath the shoulder?
F. SCHNELL - Yes, it's an extreme example.
HALLY - That's a carinated jar.
WILLIAMS - Keep it in New York.

[LAUGHTER]
F. SCHNELL - And then this is a zone punctated vessel from the Bull Creek site. Incidentally, one of the...those of you who are interested in perpetuating restored pots all of these pots that were restored here at the monument in the 30s that were from Bull Creek are now crumbling. I guess the plaster is deteriorating on them. I don't know whether you've had that problem here or not or whether they've had it down in Tallahassee.
WILLIAMS - A lot of their mixture was half concrete and half plaster. I do know that.
F. SCHNELL - Ah. They made sure that they were able to identify the catalogue numbers on some of these. [LAUGHTER] This is one that Kelly excavated at the Bull Creek site in 1950. A lot of people don't realize it, but he did several tests there in 1950.
WILLIAMS - That doesn't surprise me.
F. SCHNELL - Again one that was here at the monument in the late 50s, that's now at the museum. The pipe...I wanted to ask Pat Garrow about this. I have a vague recollection that you
were working with a group up in northwest Georgia one time, that had a pipe very much like this as a logo for their society, up at Tunacunhee or something like that.

**GARROW** - Yes, it was a group of amateurs that formed up around the Tunacunhee site.

**F. SCHNELL** - And it's the only other pipe I've seen like that. I wanted to track it down someday.

**GARROW** - That came from just south of Chattanooga on the Georgia side somewhere up there. I don't really know anything more than that about it.

**F. SCHNELL** - Yes...and this is the lower Chattahoochee equivalent of one of those monolithic axe pipes. Several of them have turned up and all of them are very attenuated. They're not nearly as neat as the north Georgia ones.

**WILLIAMS** - Well the good ones...

**F. SCHNELL** - One of the things interesting about the Bull Creek burial that was excavated in 1936 was on display in our museum since it opened. It was the first official exhibit in the museum and when we moved we decided to excavate the burial so we tried to add...tried our best to add 50 years worth of development and techniques and so forth to completing the excavation.

**WILLIAMS** - So that's now completely excavated?

**F. SCHNELL** - That's now completely excavated, yes. We wanted to avoid the problems that some people have. I think that's it.

**WILLIAMS** - Okay, we're going to have to move right along to get back with our schedule and let's turn the lights on please, and I think now we're going to move from the Gulf of Mexico drainage to the Atlantic drainage and start up high on the Savannah River. Dave.

[**DISCUSSION ABOUT SLIDE CAROUSEL AND FOCUSING THE PROJECTOR**]

**HALLY** - Okay, well there really has been a lot of excavation on the upper Savannah River. Unfortunately, much of it's either unpublished or was briefly published, for example the Estatoe report by DeBaillou was a rather brief publication. And of course, in the last 5 years there's been the Corps of Engineer's Russell Reservoir Project which has resulted in the excavation of a number of large sites--large scale excavation of a number of sites. As a result of those excavations and also my looking at Caldwell's and Kelly's collections and DeBaillou's collections from Chauga, Tugalo, and Estatoe, I've defined a number of phases for the area. Dave Anderson, working at Rucker's Bottom, also has been involved in this to some extent. Tugalo and Chauga, both mounds start out--this is in Hartwell Reservoir--start out as mounds with earth embanked or earthlodge structures on top of them, well at least Tugalo. Chauga was a bit too much pot-hunted to be absolutely sure. In, the ceramics that come from these four stages, in both cases, four stages of mound construction. This is what we're calling Jarrett phase, now named after something like Jarrett Manor or some local place name up near Lake Hartwell. And this is basically a Late Etowah component. The top row there are some, at least on the left, are some Etowah stamped motif sherds, two bar diamonds. I can't see them. This is a faded sherd...the better...a faded slide. The other ones are better than this. I think there's a filfot cross fourth from the left, and I can't tell what's on the far right.

Then down to row...down in the middle row are two line-block sherds. But mainly what you find in this Jarrett phase are Etowah stamp motifs. There's also a fair amount of check stamping illustrated by those sherds on the right. There's some check stamping. There's also some corn cob impressing apparently as illustrated by that sherd on the left, lower left, and then there are some collared rims. This is...Roy Dickens first defined for Pisgah in the Carolina
Appalachian summit area. These, well, he just calls them collared rims or Pisgah rims. The one in the middle, the pink one there, has two rows of punctations. The one to the right of that has two nodes and some incised lines as well as some punctations, and then the one on the right just has some punctations on it. That rim form, incidentally, might be ancestral to the Lamar folded pinched rim. I don't know. Apparently it is earlier. So this has, in terms of the complicated stamping, looks very much like Etowah phases that have been defined...Stillhouse, for example, in the Wallace Reservoir, and Etowah II, Etowah III as defined by Caldwell and all the others in the Allatoona Reservoir. It's different from Etowah as defined earlier in that it does have a significant proportion of check-stamping, which I think is a regional phenomenon that relates to the Savannah River and what's going on farther south. And in the bottom row I think are phenomena...are attributes that are also regional, but probably more to the north. Certainly the collared rim seems to be distributed on up the river and on up to North Carolina and the corn cob impressing seems to be in the middle Savannah River area. It seems to be localized there. So it's a...I would say it's a good set of Etowah II, III phase ceramically, but it does have some regional distinctive characteristics. And we're calling it Jarrett phase. I don't have the Beaverdam phase. I don't have a slide of Beaverdam phase and I shipped it...all the ceramics went to Alabama so I don't have any Beaverdam phase...

WILLIAMS - Let's get Jim to bring it back.
HALLY - I don't have any Beaverdam phase material to show you, nor do I have a slide of it, but the report has just come out. Since I only published about 100 copies of it, it's pretty rare. Many of you in this room will be getting it, one per institution in some cases, rather than one per individual. The Beaverdam phase was defined on the basis of our excavations, Jim's excavation at the Beaverdam Creek site. We see it as the local equivalent of Savannah culture. We see it as contemporaneous with, stylistically very similar to Savannah on the Georgia Coast. And it's characterized by...let me get my...it's characterized by both Etowah Complicated Stamped motifs, two-bar, three-bar cross diamonds, two-bar diamonds, three-bar diamonds, cross bar diamonds, concentric circles with bars across. It's also got Savannah motifs in the form of concentric circles. It's got a lot of check stamping. In fact that's the most, common decorative form in the Beaverdam phase, is check-stamping. It has the corn cob impressing on the necks of jars as did the previous Jarrett material. It's got collared rims, as did the earlier Jarrett material. It has carinated bowls with burnished upper walls, which look very similar to your Cazuela or carinated bowls from the Savannah type material on the Georgia Coast. So that's basically the Beaverdam phase.

WILLIAMS - What is the big difference you have between Jarrett and Beaverdam because, I mean, they obviously overlap a lot.
HALLY - Yes, right, they do. I think one leads into the other. It would be marked increase in check-stamping, for one and it would be more Savannah motifs. I think also the collared rim may be most common there. I'm not sure. But certainly those two differences are...

LARSON - What about carinated bowls?
HALLY - I haven't recognized any carinated bowls from the Jarrett collection. It's a pretty small collection. There were only 500 to 1000 sherds, whereas Beaverdam we had, you know, thousands of sherds and I could, you could, we could do something in vessel shape there. But...

ANDERSON - Is Pisgah the characteristic rim?
HALLY - I think the collared rim's a little...I think the collared rim reaches it's frequency peak in Beaverdam, as opposed to the late Etowah material. Okay, this slide here is Rembert phase and this is this phase is based on the collection that Caldwell got from the Rembert site, published it in a brief article in the BAE Bulletin for I think, 1953, and both David Anderson and Jim and I got nice collections of Rembert material from respectively Rucker's Bottom and Beaverdam Creek site in the... huh? Right, I'm sorry, none from Beaverdam. The Rembert site is only a few miles south of Rucker's Bottom. In fact, it's only about 2 or 3 miles south of the Russell Reservoir Dam, so we're talking roughly the same area. This collection here is actually from Tugalo. There was a nice Rembert collection in the Tugalo mound although it's stratigraphic separation is not as good as you would like. This collection...this slide here is made up in part by me pulling sherds from a larger collections, but there's definitely Rembert component at Beaver...at Tugalo.

All right what you have in Rembert is the appearance of incising, Lamar Incising. It's quite infrequent, you know, 1 percent or something like that, maybe even less at Rucker's. The motif, it's almost always on bowls apparently. The motifs are two lines at the circle, the rim and have the festoon or some sort of a scroll motif periodically. Complicated stamping with figure eights, figure nines, filifot...that's a filifot cross, the middle row second from the left, that's a filifot cross motif. And the pinched rim, the jar with the pinched rim comes in at this time, and there are three clear examples of that the lower right hand sherd and then the two sherds in a row above the bottom row, and these pinched rim sherds are characterized by fairly narrow folds or appliqué strips, but very large pinches. This parallels what Marvin got in his Duvall phase. This looks very much like Duvall phase.

WILLIAMS - Except for where's the cane punctated rims? I mean, do they just not occur up that far?

HALLY - No, they're...I don't have them on this slide. Yes I do. There's only one. It's the left hand side of the second row, second sherd from the bottom. There's only, in this particular slide, there's only one poor example.

SHAPIRO - But you do have them?

HALLY - We do have the cane punctated nodes. What you don't have at this point are rosettes. No, wait a minute. What's that difference darn it.

DEPRATTER - Punctated lugs are the great big guys. The little tiny ones are rosettes.

HALLY - Yes, yes, as at Hollywood for example, the big lugs with punctation, none of those. But these little these nodes with punctations in them do occur in Rembert. And of course, tie in with Hollywood and tie in over with the middle Santee - Wateree area. Down in the lower left hand corner are two sherds of collared rim and they have incising on them. Unfortunately, they don't show up very well. So that collared rim was around for a while as far as I, as best I could tell. So this Rembert phase, good early Lamar, has some characteristics that we see at Duvall, has characteristics that we see at Little Egypt. It fits right in to the sort of the scheme of things as we in Georgia are recognizing early Lamar now. But it has some regional characteristics, such as cane punctated nodes and collared rims. This is a sherd...this is a slide of what I for while was called a Tococoa phase and it's on your list as a separate phase, but I've since decided to do away with it because I don't really have enough ceramics to separate it out. So this would...I've merged this back in with Tugalo phase. So for the upper Savannah River now we, I'm recognizing two Lamar phases, Rembert and Tugalo. And you can just scratch out Tococoa. But this is a slide showing some of the sherds from Tococoa phase.
What's important here is the incising gets more complicated. They're...the motifs get carried out with more lines. The pinched rim, the width of the rim fold now gets wider and the pinching begins to move down on, towards the bottom of the fold. Again, that's a chronological characteristic that you see in several places elsewhere in Georgia. I don't know what else do I want to say about that. And then here's a shot of Tugalo phase material, of what I was originally going to call Tugalo phase. The wide pinched rim, plenty of incising on the top, comp stamping is fairly heavy, a lot of rectilinear motifs, although some curvilinear. A progression from Rembert to Tugalo of increasing size a tempered particle, something that we've seen elsewhere.

(?) - Is that a cord-marked sherd on the lower right?
HALLY - No. The question is, "is that a cord-marked sherd in the lower right?" It is not. It looks like it, but it isn't.
(?) - What is it?
HALLY - I think it's a stamped sherd. I'm pretty sure it is. It's been a while since I looked at this slide. I'm almost certain it's, unless I list cord-marking as part of that phase, [LAUGHTER] in which case I would have to change it. No, no, I don't think it's cord-marking. I know it isn't. So this phase would be more or less contemporaneous with Dyar phase in Wallace Reservoir, presumably contemporaneous with Barnett phase and whatever else you want to throw into that time period. Any questions about this stuff, before I go on to one more and yet another phase?
WILLIAMS - Is that a gap you've got after Tugalo on the chart?
HALLY - Yes.
WILLIAMS - Before Estatoe? Is that just we don't know or is that abandonment?
SHAPIRO - Or did I do that?
[LAUGHTER]
WILLIAMS - Or did Gary do that?
HALLY - No, no. I did it. Well, let's look at the next stuff and then we can come back to that question. Okay? I really seem to be having trouble with slides here. And this, these are yellow, jaundiced I guess. This is Estatoe phase material. This is this phase is defined on the basis of the historic components at Tugalo, Estatoe, and Chauga, presumably eighteenth century, early eighteenth century Cherokee in that area. What this first slide shows, primarily, are the rim forms and there are for example in the middle row to the right there are two good pinched rim sherds of wider and the pinching down at the bottom above them, immediately above them are two L-shaped rims, which I think are variants of the pinched rim. You get a...I have good examples of all these that we can see later...and then to the upper left, the two sherds in the upper row are rounded, rolled, real round rims and again, I think, they're probably a later modification of the pinched rim and then the middle row, the two sherds on the left are sort of a strip that's added below the lip. It just sticks right out actually, like...and it's almost always notched. So, here's that material in the big box. You can see all of those rim forms in this big box. The lower right three sherds are from kind of distinct vessels. They're very squat jars. In fact they look a lot like the Overhill Cherokee vessel form, Dick. You know, it's real squat, and I can't say anymore about it than that. And it has sort of a pinched rim. It's kind of a distinct pinched rim with a little bit, little small punctuations along the bottom of that fold.
LARSON - The left one looks like it could be a Wilbanks.
HALLY - Well, yes, except. Lew says the upper left one looks like a Wilbanks sherd and in the sense of the stamping it does, but what he can't see very well is that it's got a very large roll, okay, very pronounced roll on the on the rim.

LARSON - (?)

HALLY - Well, okay look at these when they come around and see if you think they are the same. And here are photographs of some of the vessels that are coming around, so, well, anyway...

G. SCHNELL - Could you go back to that?

HALLY - There’s a series of concentric circles in the upper right sherd. Mark and Marvin, you got quite a bit of that, didn't you, over in the site, in North Carolina, in South Carolina rather? That seems to be pretty typical motif. And the one below it is sort of a keyhole design or maybe a figure 9 design. Seems to be another characteristic stamp motif. And in the upper left you've got something that looks a lot like one of Dickens' Pisgah motifs. It's probably derived out of the line-block, I think.

ANDERSON - We've got that same design with a date of about 1350 at Rucker's Bottom. It was right in the fill at the base of the ditch.

G. SCHNELL - We...yes...

ANDERSON - A Pisgah like design, yes.

G. SCHNELL - We have one sherd.

F. SCHNELL - One sherd. That's the sherd I pulled out that looks so much like Wilbanks at the Singer site.

HALLY - Well, there's some interesting things going on in the stamp motifs at the time and they certainly do need, the evolution certainly needs to be worked out.

END TAPE 2, SIDE 2

BEGIN TAPE 3, SIDE 1

HALLY - ...the upper left hand sherd is a cross, a concentric cross. You can see the middle of the cross and those concentric lines around it. In the upper right you have got squares that come together at a corner. It looks like it forms a cross. The middle on the left is what remains of a large vessel fragment we were just talking about...that Frank alluded to. And in the middle the little sherd is like a line block motif again and that is a herringbone design on the right. And then there is some check stamping. That comes in at this time.

(?) - Is that Shelton Wavy Lined?

HALLY - Shelton Wavy Lined, yes. Except ????????? ?????????? ?????????? ?????????? San Marcos now, OK. I've got a paper coming out, if North Carolina ever gets it out, from the Cherokee Conference a couple of years ago that has all this stuff described. But it isn't something rather controversial. These are incised...obvious Lamar Incised sherds...that on stratigraphic grounds I felt belonged to the Estatoe phase, in other words, early eighteenth century Lower Settlement Cherokee on the upper Savannah River. Marvin and them got no incising apparently over in what was the name of that site? Tamassee, Tamassee. And Woody got no incising at Keowee, right. So the site evidence from a little farther east in South Carolina is that incising is gone by this time. So I may be wrong. These sherds may actually be from the earlier Tugalo component at Estatoe, Chauga, and Tugalo. All three of those sites have an earlier late Lamar component, and they also have the eighteenth century Estatoe. But these are late looking to some extent. The lines are thin. There are numbers of them. So the question is does Lamar
Incising continue on into the eighteenth century on the upper Savannah and it's up in the air at this point.

**WILLIAMS** - We are going to have to move on here in a minute.

**HALLY** - Oh, I am finished.

**WILLIAMS** - Well, thank you. I would like to hear you...

**ANDERSON?** - When do you think the Cherokee come in?

**HALLY** - Well that's the question, we've got, yes. Are you asking me?

**ANDERSON?** - Yes.

**HALLY** - Well, there is enough difference between those two by Estatoe phase, especially the rim forms, that either it's a replacement as some people they would like to see, or there is a gap of a hundred years or so. Now if I am right about the incising--if the incising continues on...in essence if you get the same motifs in both phases then you could argue against replacement. I think there is a gap of, you know, a few years or so.

**F. SCHNELL?** - It's interesting that there is the Allatoona Gap with the Cherokee all of a sudden showing up.

**HALLY** - Yes, but you've got several hundred more years in the Allatoona Gap than here.

(?) - They had further to go to get up there.

**HALLY** - And several hundred years of ???????

**WILLIAMS** - Well, are there other questions right now? Let's go on to the Wateree Valley.

**DEPRATTER** - Frank could you pull on that chalk board? I have a series slides I am going to go through very quickly.

(?) - Not as quickly as Frank did.

[LAUGHTER]

**DEPRATTER** - Quickly. Before I start answering a few of Mark's questions about type sites and those kinds of things...this is based primarily on material we've gathered in the last year or so from the Wateree Valley from the Mulberry site where we've used premound proveniences, Kelly's village, which is a slightly later period site from the premound, the Belmont Neck phase, which is a small collection we have from another mound--so in the Wateree Valley we've tried ????????????? ?????????????? ????????? ??????????? The handout coming round has been revised in the last 48 hours, but may not be final.

[BRIEF DISCUSSION OF THE HANDOUT AND TAPE BECOMES INAUDIBLE.]

[END OF DEFECTIVE TAPE 3, SWAPPED AT THIS POINT BY JIM HAWKINS.]

BEGIN TAPE 4, SIDE 1

**DEPRATTER** - ...this reed punctated in the Wateree Valley. It begins probably somewhere in Pee Dee phase, surely very strong by McDowell phase, and continues on through the sequence as far as we can tell to the abandonment of the Wateree, or at least to the end of this kind of ceramics in the 1670s. Okay, complicated stamped motifs that occur in McDowell phase. This is McDowell, 1350 to 1450. Again, some familiar faces, upper right. You get filfot cross, right center is another probably in the right hand corner lower, the top is either a key-hole or a loop kind of motif. Can't tell. Arcades in the center and some odd form in the lower left that I really can't tell you much about. As I said we haven't spent lots of time looking at stamping yet, but we know that there is some variability through time.
Okay, we also have in the McDowell phase a lot of simple stamped looking material that we're sure goes with the rest of the McDowell phase because as you'll see on the next slide it's got typical McDowell phase rim treatments, segmented rim strips that are vertically segmented. A lot of this we don't know, don't see any earlier or later, so it's seems to be pretty much tied into the 1350 to 1450 time period. Here are the rim strips that are typical of the McDowell phase so that we're sure we're looking at contemporaneous stuff and not, you know, earlier simple stamped that just got mixed into our collection. Okay, here's some other kinds of things that show up in McDowell phase. The top row, the first two on the left and the second row we call "ticks" below the lip, they're obviously punctuations, but we think they're an imitation of the kind of things you see in the lower two rows with these little notches or ticks on the shoulders of cazuela bowls or slightly carinated vessels, and the same kind of thing is also going on just below the lip up there, not at the break in the shoulder. Again, these are typical of McDowell. The ticks in the bottom row on the breaks in the shoulders may begin a little bit earlier in Pee Dee, but they're most common in McDowell and in later phases. Okay, just to show, this is again McDowell phase. The two sherds on the right are some of the few examples of incising we have from what we think are McDowell contexts. It's primarily Kelly's village excavations from 1952 we're looking at with this McDowell phase. It's a collection of 10 or 15 thousand sherds. There's an awful lot of material there, and there are about a dozen or 15 incised sherds in all of that, so these are either slightly later materials contaminating an earlier occupation, or they're just beginning to use incising, which does come in the next phase, Mulberry. But again, typical kinds of rim segmentation. This slide this in crocked, but it doesn't matter.

These are the kinds of incised motifs that we get coming in during Mulberry phase, which dates to 1450-1550 in our present estimate. They are fairly simple, only a few elements, not very complicated motifs at all. Another slide, I think to follow up, some of the ones you just saw were from excavations in the mounds. These are collected by divers in the Wateree River in the creek adjacent to the mound. We do have some crossed-hatch incising, but only a couple of sherds. The rest are typical of the kinds of things we have. I can't tell you how late this incising goes. We have it clearly in what Mulberry phase context that we have. We find it in the river and creek, and it may date to Daniels phase also, which is 1550 to 1670, but we don't have enough good context components at Mulberry site or elsewhere yet to say how much of it is present or what it looks like. There's certainly nothing anywhere that looks any later than this in the context that we have it. A little more complicated motifs. And then these are some more creek examples showing ticks that continue on up through Daniels phase we're sure up to the end of the occupation of the site. This is the most elaborate incised motif we have there. It's just two rows of scrolls, one above the other with an effigy that doesn't show up very clearly there. It's a lizard, probably, with a short tail or maybe something else. And then these are the kinds of things that we find in the latest Daniels phase, segmented rims, different from what we've seen for the most part in the earlier Mulberry material, different styles of segmenting where there's pinching. It looks like the top right is a dowel or something impressed in there. The lower left is one of the very few folded rims that we have on the site.

We think if we have folded rims they're probably Daniels phase. Complicated stamped is much larger in form so that the stamps are exploded in one sense so that the motifs are very much larger and this is an example of a large fragment of a pot which we have here with this huge stamping and a very large segment of rim strip that we think dates to the very latest occupation of
the site. I do think that Mulberry was occupied up until right around 1670 when the chieftom of Cofitachequi was abandoned or at least if it wasn't abandoned, it disappears from documentary record and other people show up there. The Wateree and the Congaree for instance are moving around in the area. I can't tell you what their ceramics look like. I can't say if they ever lived at the Mulberry site. The latest material we have, the material from the preceding slide, was from the latest stages of Mound B at the Mulberry site, so that I know that when this stuff was put in there were people were still building mounds so...if my dates were right, and you have to conclude that people at Mulberry were building mounds right on up into the mid-seventeenth century. Which may or may not be right. We don't have a lot of radiocarbon dates to go with this directly from the Wateree Valley. We have one radiocarbon date from Mulberry, from premound midden underneath Mound A. It's 1520 plus or minus 200 which precisely spans the range of occupation I would like. It just doesn't tell us very much. Most of our dating has been drawn from the Town Creek dates and from dates in the adjacent Savannah River Valley and the Oconee River drainage so that we have to tighten up the dating a little bit, but based on what we see in those areas I think, you know, the time range that we're talking about here would need minor adjustments, but I don't think major adjustments. I think that's the last.

Now these are just a couple of thrown in slides. The one in the upper left. We find some strange exotic material there we hope will eventually allow us to tie in some of the things we're working on. The one in the upper left is steatite tempered, which is common in the upper Catawba River drainage. The Wateree becomes the Catawba drainage when it goes...the Catawba River when you move into North Carolina. The lower left is a grit tempered corn-cob impressed neck, loop, I mean strap-handled sherd. The one on the right is a shell tempered strap handle, and the one on the right's pretty much like some of the Roy's Pisgah stuff, so that a lot of connections here that we'll eventually be able to figure out I think. And that's the last slide. The hand-out as I said summarizes where we are right now and looking at these changes in rim form. We have just last night, about, 10 or 11 o'clock, compiled all the documentation that goes with this, all the sherd counts, and it fits with what we know so far and the collections we have. We've got around 10 thousand sherds from underwater contexts at the Mulberry site. We've got several thousand sherds from Kelly's excavations in the 50s. We've got several thousand more sherds from the University of South Carolina excavations at Mulberry. We've got 3 or 4 thousand sherds we picked up at Adamson, so we're beginning to have a large amount of material that this is based on so that, I think, as we collect more in the coming years that we'll be able to even further refine it.

WILLIAMS - How does this work it's way out across all those different mound centers and do they move...does occupation move from one mound to the next, to the next, to the next or...

DEPRATTER - In the Wateree Valley?

WILLIAMS - Yes.

DEPRATTER - Yes, Belmont Neck, which has been described as a mound, may be just an erosional remnant with occupation on top, and it's the very earliest in the occupation sequence that we see. Adamson was occupied probably during Adamson and Pee Dee phase. Mulberry site began to be occupied, as far as we can tell, either in Adamson or Pee Dee but probably Pee Dee and continued throughout the range here. We haven't been to the other mound sites in the valley yet, but we've looked at some collections. The Boykin Mound seems to be pretty much contemporaneous with the entire occupation at Mulberry so that there are some sites abandoned
and others reoccupied, but there are at least a couple that seem to be occupied concurrently within
the valley through time.

**HUDSON** - Do you have any sense of the eastern and northern extent of Mulberry and Daniels
phase? I mean, how far east and how far north?

**DEPRATTER** - No, I don't. I have no sense of that at all, because what happens in the Wateree
is...this is a sequence that's pretty much...we can see all the way through there, when you start
looking at sites around this, and I'm working on a paper on this right now, if you look at the Fort
Watson/Scott's Lake site it's abandoned early. It's probably only in Adamson and maybe slightly
in the Pee Dee phase component. Blair Mound and Mc... and McDowell, Blair Mound and
McCullom are also early, they're, you know, Belmont Neck phase maybe into Adamson and
they're abandoned. So that, I can see the buffer on this side of the river beginning to form in the
1300s and by the 1400s it's clearly, mid 1400s it's clearly in place. A huge buffer.

**DAN ELLIOTT** - Where does the Camden Incised type stuff fit in, or does that... Do you think
that's real or did you run across any of it?

**DEPRATTER** - The Camden Incised, for those of you who don't know, is very strange stuff with
simple stamped with incising over the top of it and just parallel lines perpendicular oblique to the
rim. I don't know where it fits in the sequence. It may be...It's only found at one site, or on a
couple of sandbars and one site, so it could be some later group of people coming from who knows
where occupying that particular place in the Wateree Valley. It doesn't look like anything else
I've seen. Tommy Charles at the Institute has seen hundreds and hundreds of collections from
across the state, and he's never seen anything like it, so that it stands out as being totally different
from anything else we see anywhere.

**ANDERSON** - It's a very unusual material. It's like what I'll be showing you a slide of in a
minute, the Santee Simple Stamped material, but out of several thousand sherds of Santee, we only
got one that had the incising similar to the Camden-like material and in other respects the stamping
is identical.

**ELLIOTT** - Some of that stuff I got at Tiger village looks a little bit like that stuff you're calling
Belmont. Some of the rim characteristics are similar like it might be an early...

**DEPRATTER** - I would expect it to be, because all the other mound sites we see anywhere
outside the Wateree Valley anywhere in South Carolina are early, and then the Wateree Valley
becomes the major focus for all later developments at least as far as mounds go. I didn't look at
non-mound sites. There could be a hundred thousand people living out there in small villages that
I didn't look at the collections from, and we would be overlooking it, but as far as mound
construction and mound centers go, it's entirely Wateree Valley oriented after 1350.

**WILLIAMS** - Does that mean that that's when Cofitachequi was born?

**DEPRATTER** - I didn't say that.

[LAUGHTER]

**HUDSON** - You said that you would found a big mound north of Camden up the river.

**DEPRATTER** - Yes, well, there are historical documents for a mound up the river, 20 or 30 miles.
It was at one time 30 feet high, washed away in a flood in the 20s for the most part, but the village
and the lower portions of the mound should still be there, so I intend to track it down.

**HUDSON** - What town is this near? Van Wick by any chance?

**DEPRATTER** - It's near Guaca ha, ha. Pardo was there.

**WILLIAMS** - Okay, let's move on to the South Carolina, nearer the coast. David?
DAVID ANDERSON - Okay, I'm going to be talking about materials that were recovered from the Mattassee Lake sites. That's the type site of materials that I'll be talking about, and in addition to the Mattassee Lake material, the inferences reported here also reflect inspection of approximately 200 surface sites from the lower Santee drainage area. The best known phases in the sequence that you see there are the pre-Mississippian, the Santee materials, Santee I and II, the subsequent phases, the Jeremy Savannah variant, the Pee Dee, and the Ashley reflect a traditional, up until today, view of the Mississippian sequence in the area and, as we can see from the work that Chester and Chris have done, literally overnight our chronology has become considerably refined. The sample...[someone whispers something to him?]...okay. The sample of material comes from the Mattassee Lake, which is located about 50 or so miles up the Santee River from the Coast.

The site itself is probably a series of hunting stations or small campsites located along the terrace of a tributary of the Santee River. What's very interesting though is that there's a large Mississippian village approximately a kilometer north, excuse me, a kilometer south of the Mattassee Lake area. You can see here where Mattassee Lake enters the Savannah River, there's a lot of suspicious staining in this field. There's a tremendous number of Mississippian, Adamson phase, materials and there's a lot of very interesting things going on here. What we're looking at in terms of the materials from Mattassee Lake itself, is a sample size of about 26,000 sherds, 4,000 of which reflect diagnostics from the later Woodland, the post 700 A. D. time period. We have 12 radiocarbon dates documenting the sequence from A. D. 500 to approximately A. D. 1350, all of which are internally consistent and derive from features such as that which you see here with sherds actually in the fill of hearths. We also have the stratigraphy as reported is documented from approximately 200 excavation units.

Now these are mixed terrace deposits so we had to use seriation, but in a large numbers of units we got a consistent sequence of cord and fabric materials with six dates placing them from 500 to 720 and then a simple stamped like material like the lower sherds, which we have 5 dates ranging from 820 to 1340 and again, these stratigraphically consistently occur over the cord and fabric marked materials. I believe that within this, what I call the Santee series, which is affiliated to the Camden series in some ways, there is an evolution from basically unmodified to modified rims. By modification however I don't refer to any of the elaborate things we've seen later, but rather rims that have notching or interior stamping. This, I believe, is the Late Woodland antecedent of the Mississippian materials that show up at places such as Wateree River valley. It's not really overlain. At the top of the Mattassee Lake deposits there's a thin scattering of what I would consider to be fairly typical Savannah/Pee Dee-like material however, we don't have that, and all we know is it's at the top of the Mattassee Lake sequence. However, I believe that the simple stamped-like material, which is, incidentally, fairly common along the lower Santee River and through my inspection of collections does occur further to the west. I have seen small amounts of it on the Edisto and Savannah Rivers.

This material runs up to about 1200 A. D. and I was a little concerned about the post 1200 radiocarbon dates that we had. Our latest one is about 1340 and it's possible that it could continue that late given things that we've seen from Chester and Chris's work. The sequence after the Santee materials and all of this incidentally, is documented in perhaps overly much detail in the Matasee Lake site reports. Approximately the last 20 pages of the ceramics chapter discusses the Santee, Jeremy, Pee Dee, and Ashley series. The material, the subsequent material, again reflects
the very traditional view. The Jeremy as a Savannah variant, which is very similar in many respects to Pee Dee and in fact differentiating them is difficult. You basically seem to go from concentric circles to things like arch angle and filfot cross and then the Ashley is the traditional protohistoric material--very sloppy complicated stamping. There's a little more detail in the hand-out. That's basically all I have to, to say.

SHAPIRO - This fits pretty neatly with the Wateree sequence.

ANDERSON - I think it does in that it shows what comes immediately before Wateree and perhaps that the initial part... Now another, to make one point, some of you who know the work on the upper Savannah River know that I've been engaged in sort of an argument with some of the north Georgia people. I feel that we have in the South Carolina and western North Carolina area, at least, things that look like indigenous Woodland ceramic complexes with cord, fabric, simple stamping running fairly late. There's a lot of argument as to how late Connastee runs in western North Carolina for example, and I believe that many of things that we've been calling traditionally Middle Woodland may in fact carry over somewhat later. Either you accept that we've already collected these sites and we're just not--the later Woodland materials--and we're not recognizing them, or you have to accept an abandonment of a fairly large area during the Late Woodland. So I think that for the Late Woodland and what in Georgia might be initial Mississippian time levels, 1000 - 1200 A. D. interval over much of South Carolina you have what would be considered a Woodland ceramic complex dominated again by cord marked, simple stamping, whereas like this is...traditionally we've looked at this material and we've said 'oh, it's earlier--Middle Woodland'. It's just something food for thought. How...okay go ahead.

HALLY - How do you justify, how do you relate that to the late Swift Creek Napier-like stuff coming out of the base of Tugalo mound?

ANDERSON - Okay I have no prob...I mean I...there's no question that the north Georgia sequence works. It's well established, but the further to the east you go...

HALLY - Okay.

ANDERSON - the more infrequent those north Georgia comp stamped Swift Creek/Napier materials are...

HALLY - Okay, right, okay.

ANDERSON - ...and if you have to use north Georgia sequence then you have to posit a depopulation of most of South Carolina and most of western North Carolina.

HALLY - No, I'm just concerned with the upper Savannah.

ANDERSON - Okay, in the upper Savannah, I think that what we're looking at is perhaps boundaries of traditions, cultures, whatever you want to say and that some...the Savannah is at or close to a boundary between these comp stamped northern Georgia folks and the cord marked, simple stamped South Atlantic Tradition.

HALLY - No, no problems.

ANDERSON - Okay, you heard him say it.

DEPRATTER - That's right.

HALLY - No problems. I'll say it again.

DEPRATTER - We don't find very many, getting back to some earlier stuff too, some Etowah material kinds of motifs you're talking about with cross bars and cross diamonds and those kinds of things even cross bar concentric circles and those things are, you know, we don't find very many. Almost everything that I've seen from the Watereee starts right out with concentric circles like...
typical Savannah, coastal Savannah Complicated Stamped, which is late, doesn't have any cross bar elements of any kind or at least not very common, figure nines, figure eights, concentric circles, those kinds of things. That's where it begins over there, and I've...there are few Etowah-looking motifs or you know, cross bar motifs of various forms, that show up in the Wateree Valley, maybe five or six that I've seen from all the collections I've looked at, and there are a couple at Town Creek that are illustrated in that report, but you know, one or two sherds out of every 5,000 that you see with complicated stamped, even on early sites.

SHAPIRO - It sure would be interesting to see a line around the distribution of Etowah stamped motifs overlain on a line around the distribution of all other complicated stamping, later complicated stamping, and see where that fits.

ANDERSON - Well, I think that the Savannah River is about the easternmost extension of really extensive quantities of Etowah-like material. It's really neat to look at a time transgressive or to intuitively look at a time transgressive figure of a spread of Mississippian in the south Atlantic area, that basically you can see it beginning 1000-1100 on the Savannah and then 1100-1200 in central South Carolina that it isn't something that emerged everywhere literally overnight or at the 900 to 1100 time level, but it is a time transgressive phenomena. The central South Carolina material does appear to be one to two centuries later than phenomena occurring in central and western Georgia.

SHAPIRO - What happens to it on the, on the west, is it like that? What's the western extent of the Etowah stamping. Do you have the same progress? Jim...okay...

FRANKIE SNOW - On the southern extension, the lower Ocmulgee is about the southern extension of Etowah motifs.

WILLIAMS - Do they go into the Apalachee area?

SHAPIRO - No.

CALVIN JONES - We've only seen one sherd.

SCARRY - One line block, I've seen one line block.

SHAPIRO - One line block and one...Jim, where does Etowah, what happens to Etowah stamping in Alabama? Does...

KNIGHT - There are plenty of good Etowah 2-3 level sites on the middle Coosa as far over as central Alabama, but not much further south than that and none further west.

WILLIAMS - How far north does Hiwassee Island go Dick?

G. SCHNELL - How far north, or how far...

WILLIAMS - North, does Hiwassee Island go?

POLHEMUS - Uh...

WILLIAMS - ...which is Etowah.

POLHEMUS - Up to about the mouth of the Nolachukee River on the French Broad.

WILLIAMS - So we can define the entire boundary pretty clearly now, for whatever it's worth, we can do that.

G. SCHNELL - There's a fair amount down in the middle...in the lower Chattahoochee, the upper part of the lower Chattahoochee.

WILLIAMS - Are there any other questions right now for South Carolina?

ELLIOTT - Might not this simple stamped material be utilitarian ware that could be contemporaneous with the Etowah stuff that shows up on certain sites. The stuff is more common.
ANDERSON - I don't think...I know I've looked at surface collections from hundreds and hundreds of sites in South Carolina and Etowah is very rare. It just flat is not a common phenomena. It is on the Savannah River the further west...the further east you go it becomes increasingly rare. I think that it's...that idea has been kicked around, perhaps the comp stamping occurred at centers and the more utilitarian ware occurred at outline village sites. However, I know that at Matasee Lake we got a lot of this simple stamped material and very little comp stamped material, and at the Mississippian village site just a kilometer away it was almost exclusively comp stamped and that tends to reinforce your argument. I can't believe there wouldn't be, over a 1 kilometer distance a considerable admixture of for use of comparable materials.

WILLIAMS - Yes.

JOHN WHATLEY - One comment I would like to make here that relates to this is the...one of the main problems we, a big problem we have in middle Georgia is Mossy Oak simple stamped, and when we went back and looked at Mossy Oak type stamp, they found a lot of mixture between Lamar sherds and Mossy Oak simple stamped and it caused people to begin to speculate as to how late Mossy Oak is. I don't know whether anybody wants to comment on that...

WILLIAMS - We tried to let Mossy Oak die, but...

DEAN WOOD - It keeps raising it's ugly head.

[LAUGHTER]

WILLIAMS - It does doesn't it? I don't know. I...Dean what do you think about Mossy Oak?

[LAUGHTER]

WOOD - Well, it's there, but it's chronological position, I think, is very unclear. I don't think that...I've seen Mossy Oak pottery attributed to north Georgia as an Early Woodland ceramic type. It is not. The stratigraphic excavations we have on early Woodland sites do not have simple stamped pottery before or even with the fabric marked pottery. It occurs after the check stamped at basically Cartersville or you might call it Deptford, for instance. Now whether in other parts of the state there is an Early Woodland simple stamped which you could call Mossy Oak I don't know. I know at the type site that from what I recall, I may be wrong on this because I haven't seen it in 15 years, if I'm not mistaken, the type site had two strata. It had Lamar in the plow zone and it had a simple stamped ceramic called Mossy Oak below it.

WHATLEY - But they went back and looked at it again and then they couldn't seem to find the...

WOOD - Well even, even the first argument, being simply below Lamar, does not equate with Early Woodland at all. It just means it might be pre-Lamar. But now if there's no real good distinction there, we might need to question it more.

WILLIAMS - Pat.

GARROW - I don't think really it's been called Early Woodland per se in terms of northwest Georgia excavations Dean. If you'll look back I think you'll see that was assigned to Mossy Oak based on the statements of the investigators of the type site more than anything else. There was no solid evidence to what it is or if it is, or anything else. I would rather ignore it myself.

WOOD - Yes, I would like to see it not used, but it does pop up every once in a while and it being attributed to early Woodland.

WILLIAMS - Well maybe we should formally kill it.

WOOD - I thought we did that once upon a time or did just you and I agree?

WILLIAMS - We need another nail. David?
ANDERSON - The problem of simple stamping has had considerably interested me, since I came up with this Late Woodland horizon and recently Glen Hanson, Mark Brooks, and I have been working with a series of stratified sites in the middle Savannah River in which we have roughly 2000 years from Refuge through a little bit of later Woodland simple stamping, and one of the things that we found was if you do a detailed attribute analysis of this like stamped width, stamped orientation that you can come up with sorting criteria that will differentiate on an assemblage level, not on an individual sherd level, materials, differentiate Refuge from a Deptford, from a later Woodland material. This information is discussed in an earlier format in some detail in the Mattassee Lake report and Glen and I will be putting out a paper with our sorting criteria at some point. There's a draft of it ready now and if people would like it I would be, we would be glad to make it available.

WILLIAMS - That's good.

MILANICH - Thank god!

WOOD - So what you're saying is you can distinguish, on an assemblage level, early simple stamped from late simple stamped?

ANDERSON - Basic... yes, from a Refuge, from a Deptford, from a later Woodland. There are several attributes and, again, we do have this information from stratigraphic contexts. We're actually able to look at assemblages that we know their associations and have the sorting criteria down.

WILLIAMS - Okay, well, we're going to have to go ahead now, to the Oconee drainage and Marvin and I are listed as giving that, and I have to tell you that, that he and I haven't spoken one word together in preparation [LAUGHTER] for this, but in looking over the chronology there for the Piedmont Oconee, I've been working there for 7 or 8 years off and on, and I looked at the 1, 2, 3, 4, 5, 6, 7 phases that are listed there and Marvin is responsible for Numbers 1, 2, 4, and 6 [LAUGHTER] and I'm responsible for Numbers 3, 5 and 7. Essentially what the history of the development of the Oconee chronology was this, that the Joe Bell site, MG28, was the first one of all of those that was excavated back in, well before '77 and then again in 1977 was the last one. It turned out that the Joe Bell site also had another type of Lamar adjacent to it, which Marvin in the summer of 1977 in excavations at the Dyar Mound was able to show was what we, he called the Duvall phase, which is significantly earlier there. Marvin also defined the Dyar phase and essentially defined the differences that are now broken down there on your paper between the Iron Horse phase and the Dyar phase, he simply, at that time, did not have adequate stratigraphic information to separate them. I was able from the excavations at the Scull Shoals mound, to get what I considered to be adequate stratigraphic separation to go ahead and essentially implement what Marvin had already hinted at, and I think Marvin has told me in a later mysterious unseen draft of the Dyar report, he has got it split, but I don't what if he called it anything.

SMITH - I just call it early and late Dyar.

WILLIAMS - Well, I like...we're going to live with this. Iron Horse, by the way, is for a specific art work that exists in a field in the Oconee Valley. Some of you may be familiar with it. It has nothing to do with, with DeSoto or trains or anything. The Scull Shoals phase was based upon our excavations last summer at the Scull Shoals mound, essentially is a Savannah component. Now Marvin, in excavations at the Dyar Mound had found plenty of Etowah materials, the Armor and Stillhouse materials, but he really did not see anything that he could clearly define as Savannah based upon what had been being seen in the Savannah Valley and so forth, and the
collections that...we found a very thick deposit of this Scull Shoals material in the bottom of the northeast dump at the Scull Shoals mound last summer and thus are kind of cleaning up the chronology there. Of all those phases, I think that we have virtually all of that now by stratigraphy. We had a 12 foot deposit of midden on the northeast dump at Scull Shoals mound last summer. But that does not go back to the Stillhouse and Armor. Stillhouse and Armor Marvin had from the Dyar Mound in...

SMITH - No, the Armor phase is from Cold Springs.

WILLIAMS - Tell me about the...tell us about the Armor phase.

SMITH - The Armor phase is defined from very small collections at Cold Springs. We're still waiting for a more complete report.

WILLIAMS - That is essentially what we have there with Armor and Stillhouse is early and late Etowah. Which brings up something that I've wanted to mention from time to time, is that back in the 1950s, 40s and early 50s, we were presented with Etowah I, II, III, and IV, which we have struggled over the years to see how to deal with. We consistently lump Etowah II and III together. At least five people today have said Etowah II/III. Etowah I is kind of a mysterious thing that doesn't exist, perhaps at a few sites and Lew is probably sitting over there saying, 'well it does'; and I would like to hear his comments about it, but it seems to me...

LARSON - No, I'm glad to know somebody else had problems with it other than me. I had arrived at essentially the same conclusion.

WILLIAMS - It seems to me that to try to have more than two Etowah phases with our present knowledge is overkill, and we ought to just...I don't...I hate to say we ought to stop talking about Etowah I, II, III, and IV, but maybe we should stop talking about Etowah I, II, III, and IV and simply have Etowah, early Etowah and late Etowah. Now I'm going to...

WOOD - You, you might be able to use the breakdown some more in the Etowah Valley than you can in the Oconee Valley, but don't throw away something you can't use, because someone else can use it.

WILLIAMS - The problem is that it, because it's on the paper...well, do we? I guess we have to call Etowah I phase, Etowah II phase, III phase, IV phase and then we would have Scull Shoals phase. I don't know. I guess that I still am not even a believer that you can see four phases in the Etowah Valley, but perhaps you can...anyway, I don't really have any...this is just an admission...

MILANICH - Why don't you say that Armor is Etowah I and II and Stillhouse is III and IV and that's the same as early/late for you basically.

WILLIAMS - We could do it that way.

MILANICH - And Dean still has Etowah II, III, and IV to use.

SAINDON - It's now on record.

KNIGHT - Hey, Dean, how useful is Etowah I, II, III, and IV in your survey?

WOOD - For me? I just threw out that to be the devil's advocate. I feel the same way Mark does. I can't use them. I haven't been able...I've seen...You know, there...if I'm not wrong, it's been broken down on various motifs and how many bars go through the diamonds and things of that nature.

WILLIAMS - And I don't even trust some of that.

WOOD - What's more essential is you've got to have a very good collection.

LARSON - I don't think Etowah I is even at the Etowah site, and I never was really able to separate IV from III or II from III.
WILLIAMS - Well, if you can't do it, Lew, then we can't, and I don't see...and...Dean, devil's advocate's all right, but if it doesn't help in the Etowah Valley, I don't think it helps anywhere.

WOOD - You're probably right.

SMITH - There are certain things that stand out in all the Etowah sequences. I mean, Hally and Rudolph have found it over in Beaverdam. The ladder-based diamonds are early, and then they drop out and that's the difference between early and late.

WILLIAMS - That's the big thing, ladder-based diamonds drop out and then you add filfot crosses real late.

SMITH - There's no filfot cross in my Stillhouse phase though.

WILLIAMS - There is in my Scull Shoals phase.

SMITH - That's where it belongs.

WILLIAMS - Okay, the sequence there in the entire valley, Armor is Etowah, early Etowah; Stillhouse is late Etowah. The difference is the ladder-based diamonds are present in the former and absent in the latter.

SMITH - Savannah Check Stamped starts appearing in real limited quantities.

WILLIAMS - Say that again.

SMITH - Savannah Check Stamped appears in limited quantities in Stillhouse.

WILLIAMS - Yes, and what I was about to say is that Scull Shoals, while it is more Savannah, there is a definite and obvious continuity between Stillhouse and Scull Shoals. In fact, there's a continuity through this entire sequence that is very clear. It's difficult, I will admit, to separate in small collections Stillhouse and Scull Shoals phase that is, late Etowah or early Savannah or Savannah are very difficult to separate on the basis of small collections. You need large collections. The biggest differences have to do with the Scull Shoals, that is the Savannah material. You have less rectilinear and even more curvilinear stamped motifs. The stamping itself is a little sloppier. The diamonds, which do continue into the Savannah, some of them begin to take on a, I say sloppier, let's say rounded characteristic as you move from clear cut sharp diamonds, out of them. But there are some good diamonds in the Savannah material. In fact, I think probably diamonds go well, or go a little bit even into the earliest Lamar, the Duvall where you can identify specific motifs, and we have recently identified two dozen Savannah or Scull Shoals period motifs, and so be careful that you're not trying to say that there's only two or three different types of motifs in the stamping. There are many. They are all difficult to identify, but they are there. The Duvall is the real strange one in our early Lamar sequence. The preponderance, or the most pottery there is plain, which is a bit strange, and we've never quite understood why in the Oconee Valley you actually have a decrease in the amount of stamping there.

SMITH - I think stamping goes down to something like less than 10 percent.

WILLIAMS - It goes way down. There definitely are the cane punctated rims, and very narrow pinched rims are the rim forms for Duvall, particularly the cane punctated ones. But the cane punctated rims go on into the next phase, the Iron Horse phase. There's...one of the striking things about the Duvall phase is the incising. Now that's less clear now than it was. In general, everyone has seen that there's little to no incising in the earliest Lamar, that is, earliest phases that have rim modification. We do have a very specialized type of narrow incising. Marvin has the picture passing it around. I almost brought the whole pot--what we call Morgan Incised. It's a fine lined incised on tall-neck jars with vertical lines and then the kicker is cross-hatched incised.
lines. We found it at the Joe Bell type site. We wondered what the heck it was for years until
Marvin found it in stratigraphy and then we found it throughout the Wallace Reservoir and we said
'hey, we've got a perfect marker here for the early Lamar in terms of the incising for the Oconee
Valley.' Unfortunately my recent excavations at Scull Shoals and Shinholser and my early look at
surface collections from Shoulderbone Mound, I have not found a single sherd of it even though
it's pretty clear that there would have to be some early Lamar occupations at those mound centers.
So that particular sherd type is very restricted in area probably to the Wallace Reservoir and
perhaps every site that ever produced is now under the lake.

HALLY - Yes, it's below the flood pool only, huh?

WILLIAMS - Below the pool level only, so we can't use that in a broader sense.

SHAPIRO - But it's really a useful tool and it delimits a region of particular style...

WILLIAMS - It is a very small style area...

SHAPIRO - ...very limited in space and very limited in time, and it occurs at the Dyar site and
many small sites also, and that's about it.

SMITH - But the problem is that it's always a very infrequent type. I don't think we ever saw it in
sherd collections more than 4 percent, so you if you don't have very large collections, you're not
going to see it at all.

WILLIAMS - We don't know where it came from.

SMITH - So in survey collections it's not real useful because it's fairly rare.

WILLIAMS - The Iron Horse phase is when you really start getting real incising. It's bold
incising you have it as two or three lines as we've seen lots of these vessels and I have them laid out
on the table over here. I won't try to pass them around. I don't have Armor and Stillhouse, but I
do have all the rest of the phase materials laid out over there on the table, and they just duplicate a
lot of what we've heard thus far today. Iron Horse does have stamping. It comes back a lot more
common. The rims are folded pinched. They're not too wide. As you go into the Dyar phase as
presently defined on your chart you get, the biggest immediate change is that the rims, folded rims
get wider, and more obvious is that the bold incising goes from 2 or 3 lines to 5, 6, 8, 10, 12, 14 line
bold incising. They just go wild with it. It's actually beautiful stuff and it's probably some of the
best quality ceramic that we have, certainly in the valley and perhaps in the area. We've all
known that the Lamar ceramics are good quality ceramics. I mean they are well-made, well-fired,
hard vessels, and the best of them occur in our area in the Dyar phase in terms of the ceramic
quality. It is probably during Dyar phase that DeSoto came through Georgia. And, we think,
through the valley. The Bell phase is the aftermath within the valley as things started falling
apart, if you will. The ceramics are quite distinct, but the are an obvious continuation of what had
been going on. You lose stamping completely. There's no stamping in the Bell phase. It drops
out completely. It's plain and incised. The incising is...there is a small amount of bold incising
that stays in the Bell phase, but we had this problem in the Oconee Valley. We had to years ago
start saying that 'well, we can't deal just with fine incising and just with bold incising,' and so we
came up with a very original category known as 'medium incising'...

WILLIAMS - ...and so in the Bell phase you have a small amount of bold incising, lots of medium
incising, by width, and a good bit of very fine incising, but it's not like your Blackmon stuff Jim, as
you can see over here. It's very carefully applied. It's well done, or at least a lot of it is. Incising
is beautiful ceramic, and they retained the ability to make beautiful ceramics and high quality ceramics right until the very end of the sequence. There's also one marker horizon style that for the Bell phase over here, a T-shaped rim where it...a flat ledge hangs over both the inside and outside of simple bowls with bold incising, two or three lines on the top of that. There's a big sherd of it over here. Unfortunately, just as with the Morgan Incised, it's an extremely rare type, but when you find it you know you have Bell phase. The whole thing comes to a screeching halt in the Piedmont Oconee Valley at about 1650 or 60. My present feeling about what happened there, was that, yes, it may be disease, but it certainly correlated with just about the time that some of the Yuchi or the Westo came into the Savannah Valley with their guns and started slaving out anybody they could get and so it may well be that that's what happened there. After 1650 there's no one left in the Oconee Valley in the entire sequence. The Georgians expanded up to that area by the 1780s and a few Indians, Creeks came over to that area for trading purposes, but there are no permanent settlements that we have found or ever..., in fact, I cannot truly name any temporary settlements that we have found after 1650 in the Oconee Valley.

SHAPIRO - Above the Fall Line.

WILLIAMS - Above the Fall Line. There is Oconee Old Town at, just south of Milledgeville just at or below the Fall Line and that from the collections I've looked at have nothing whatsoever, Marvin, to do with the development in the Oconee Valley. It's pure Blackmon phase, that Jim has from the Chattahoochee, just as he said is the Ocmulgee Old Fields material from here in the Macon area. Now let me make a quick comment, since it's not on the schedule for the Macon area; make a couple of comments here. I worked what 10, 12 years ago on trying to look at the material from the Stubbs Mound, 10 miles south of town here.

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WILLIAMS - ...the earlier Stubbs phase and later Cowart's phase. Well, given what we've all seen here today, those phases are incredibly gross and need definitely to be broken down. Stubbs phase probably covers 250 years or more and covers a lot of stuff that is clearly Savannah materials and early Lamar materials, and the Cowart's phase covers all the second half. So it's kind of early and late. It's going to take more excavations in central Georgia. Macon...finally the Macon area after all that excavations in the 30s, is now way behind the rest of the state in our knowledge of the area. An interesting point, though about the Blackmon phase materials or the Ocmulgee Old Fields materials and Dave, it's relevant to what you and I have been talking about, is that after, shortly after DeSoto came through Georgia, let's say 1550 or 60, this area seems to be dead. It becomes abandoned. There is no obvious continuity after that to his Blackmon stuff, and I truly think that the Macon area here was empty of people for, from maybe 1570 up until 1670 or 80 when people came in there. I really think that we do have a hundred year gap in this area and as much as we stress continuity in all these other sequences, I think that we have to be careful to, when we see gaps, to not be afraid to say there may well be a gap in this sequence, and it sure looks that way here in the Macon area between 1580 and 1680. We have nothing comparable to Bell phase from the central Georgia area. Now I'll stop there if you've got any general questions or we can just lead into a discussion quickly before a break.

ELLIOTT - What differences do you see between Ocmulgee Old Fields and Bell phase?
WILLIAMS - The rim forms are totally different. The in... you get, well, Jim, describe Blackmon phase rims.
KNIGHT - Nothing special about them. There's some typical Creek pinched rims in there.
WILLIAMS - You get these flattened lips on incising.
KNIGHT - I don't recall, you know, that there's anything distinctive about them...
WILLIAMS - It's been a long time since, well, what I'm remembering is the Ocmulgee Old Fields Incised is you get a lot of rather flat lips, rather than pointed or simple rounded lips.
SHAPIRO - There's no brushing in Bell phase.
WILLIAMS - There's no brushing in Bell phase. The incising in Bell phase is much more carefully done and thought out. You don't get any red filming whatsoever, which is a chronological thing as we see in Bell phase.
KNIGHT - There's no shell-tempering in Bell phase.
WILLIAMS - You get no shell-tempering in Bell phase and there is some...
KNIGHT - Well there is a good bit of shell-tempering. In fact, I think most of it is shell-tempered in Blackmon.
WILLIAMS - There's some significant differences. They are similar. Witness, Chester years ago when we first did the survey of the Ocmulgee, I mean of the Wallace Reservoir, he had no choice at that time but to call the material that we now see as Bell phase, Ocmulgee Old Fields, because it's thin line incising. Again the point is thin line incising is not all the same.
SHAPIRO - There, one general characteristic about the Oconee sequence that I think sets it apart from the surrounding regions and that is the way the stamping falls off. And it falls off at Duvall, I guess it's to it's lowest point, but it never really recovers to be much of the assemblage. Marvin does it ever get up to even 20 percent?
SMITH - Yes, but some of our, what I was calling early Dyar, what Mark now wants to call Iron Horse, I got several stratigraphic levels from the mound dump with 15-20 percent.
SHAPIRO - And that's as high as it gets, and then it disappears in Bell phase and surrounding regions percentages closer to 50...
SMITH - Well, in what we're calling Dyar phase now it's down to about 5 percent.
SHAPIRO - ...and that makes it somewhat, that makes it's sequence stand out a little bit from all the other regions.
WOOD - Mark.
WILLIAMS - Yes.
WOOD - ...I noticed you want to cut Bell phase off at 1650. I distinctly remember some C-14 dates at the Bell site.
WILLIAMS - Corrected dates for those are 1630.
WOOD - Okay.
SMITH - Yes, I thought you wanted to stop it earlier than 1650 for a long time more like 1630.
WILLIAMS - Well, I think the type site dates to probably 1630 or so. You know, you've got to give it 20 or 30 years to die out.
SMITH - There just isn't the amount of European material you would expect.
WILLIAMS - What?
SMITH - There just isn't the amount of European material you would expect at 1650s in that area.
WILLIAMS - Perhaps the valley was abandoned about 1630 you're suggesting.
SMITH - I would tend toward an earlier, yes...
WILLIAMS - I...that would be all right with me. I don't have any[thing against that.
SMITH - Maybe earlier.
WILLIAMS - It's time for a break and it's also time for after you get a quick drink of water to go out to the entrance to the earthlodge for our photo! Let's go!

[BREAK FOR PHOTO SESSION]

WILLIAMS - Okay, gang, if you can believe it, we've got one more session of chronology to do and we'll be finished. Where's the program. Okay, Frankie, tell us about the... about south Georgia.
FRANKIE SNOW - Okay, today, I want to talk a little bit about the lower Ocmulgee and the upper Satilla drainages in terms of the Lamar manifestations down there. I brought several amounts of pottery and if you're interested in looking at some of this stuff after I go through a set of slides, I'll be glad to try to answer any questions that might arise. If I could have some lights I've got a text that more or less parallels the slides so... The primary emphasis of this report is to reveal a sixteenth century Lamar manifestation in the area encompassing the lower Ocmulgee and upper Satilla River drainages. Since this Lamar occupation had Mississippian precedence in the area, a few comments will be made relevant to the ceramics of earlier and later groups of people who participated in a Mississippian lifestyle. Since no dates are available, the chronological placement of the various groups of Mississippian people in this area is inferred from adjacent areas where radiometric determinations have been made. It is likely that at least some of the numerous sites containing cord marked ceramics were datable to the A.D. 1000 to 1300 time interval. Sites bearing cord marked ceramics represent the most frequently occurring type in the sample of approximately 700 sites located in the area. While the unimaginative cord marked ceramics do not appear Mississippian, the close association of Ocmulgee I Cord Marked sites to river flood plains is a suggestion that these people may have practiced agriculture. Current botanical analysis from one large cord marked site in Telfair County, will hopefully shed light on this matter. A couple of mounds associated with Mississippian sites are not common in the area however, they are present.
WILLIAMS - What's this?
SNOW - This is the Temple Mound, flat top mound, south of Albany, on Chickasawhatchee Creek, Fort Walton most likely. This structure was recently photographed just south of Albany along Chickasawhatchee Creek, as I said. Another mound very similar to this one had been destroyed 6 or 7 years earlier on the west side of the same creek. These two mounds are probably the ones Swanton refers to as being on Pine Island during his DeSoto route study. A visit to the destroyed mound revealed a surface scatter of Fort Walton ceramics. An earlier walk over survey along Chickasawhatchee Creek revealed 21 Fort Walton sites, with largest measuring more than 25 acres in extent. Closer to the present study areas is a flat top structure, Fish Trap Cut, on the lower Oconee River. Another mound is present near the river. Cultural association remains unidentified at this site however. Flat top mounds do not necessarily equate to a Mississippian occupation in south Georgia. Such structures present within the middle of the Okefenokee Swamp probably are products of the Weeden Island occupation there. The large Middle Woodland temple mound at Kolomoki is obviously pre-Mississippian. Etowah sites extend down the Ocmulgee River to the area of Hawkinsville. The Etowah midden at Sandy Hammock,
9Pu10, located just south of the confluence of Mosquito Creek and the river was exposed in an river access road and in pot holes on the site.

Ceramics included Etowah Complicated Stamped, Etowah Line Block, and Etowah Plain. Red paint adorns the rim and interior of some bowls. Further down the Ocmulgee at the confluence at it's confluence with the Oconee, ceramics occur in very crude attempts at Etowah motifs. These sites probably derive from Savannah II occupations. Early Lamar sites are recognized in the area by the presence of well impressed filfot cross designs on jar forms which have undecorated out-flaring rims. When present, bowls are usually plain undecorated examples. An early Lamar shell midden was exposed during reforestation activities at 9JD78, located on the upper Altamaha. Sherds were mostly early Lamar Complicated Stamped jar forms, however some bowls were present including a few early Lamar Incised examples. Occasionally Lamar ceramics have been seen in the area that must have been used elsewhere such as this example. Another similar jar was found on the river trail in Wheeler County bearing a typical coastal Irene filfot stamp. Ossawitchee Springs in Wilcox County is the location of another important Lamar site, however ceramics found there suggest a different group of Lamar people than those further down the Ocmulgee.

The major Mississippian occupation of the area is by people who made late Lamar Incised cazuela bowls, Lamar Square Ground stamped motif below the incised zone and jars with Square Ground stamped motifs on them. This type of pottery assemblage has been recovered from over 40 sites extending from lower Ocmulgee to the upper Satilla River. We will briefly look at some of these sites and their ceramics. Lamar Square Ground sites are often found near known Indian trails marked on original land lot survey maps. Some sites such as 9WL7 are strategically situated at the confluence of the Oconee and Ocmulgee Rivers. Not only do war trails converge here, but land routes such as the River Trail from Darien to Macon, and Tallahassee Trail intersect the area. Within the past few weeks site 9WL7 has been bulldozed. Years earlier a fire break cut into a Lamar Square Ground stamped midden here exposing a large quantity of ceramics and food remains including corn, bean-like seeds, river mussel, and deer. Presently one can see a number of areas where Lamar ceramics tend to concentrate. Just east of 9WL7 land development activity in Bell's Ferry is currently impacting the most strategic point of land in the area, where both water and land trails could have been easily monitored or controlled. Mary Musgrove recognized this factor and established Bosomworth trading post here in 1746.

The important Square Ground site is expected to be exposed as landscaping activity is carried out at Bell's Ferry. Coffee Bluff on the Ocmulgee River in Telfair County is the location of a recently bulldozed Lamar site. Reforestation activities exposed five middens. One of these areas appears to be a house mound and daub, food remains, and Lamar ceramics are visible on the surface. One sherd of glazed, wheel-turned pottery has been identified today as Columbia Plain, was also found in this house mound and you can see it in the upper right hand corner of this slide here. There's some indication of Spanish contact with these people. Pit number 3 has fragments of a small incised vessel with handles similar to the type known as gravy bowl. This is one Doctor Hally mentions in his recent article in American Antiquity as being used for transporting fire, or suggests that any way. A sample of several thousand Lamar sherd, these exposed middens provide information on incised design and their preference for particular motifs. Two basic designs include the scroll with several variations of the motif occurring about 65 percent of the time, and a loop such as the second row there occurring about 28 percent of the time on incised
vessels. A variety of miscellaneous designs comprise the remaining 7 percent of the motifs. The use of punctation occurs on 1 out of 10 incised vessels produced. The use of punctation within the incised motifs may be a useful tool in separating this variant of Lamar from the more northern varieties. Incorporation of punctation in the incised motif is reminiscent of Fort Walton Incised wares in southwest Georgia.

Sherds from Lamar jars recovered from the midden at Coffee Bluff show rims with pinched, placed strips around the lip. Complicated stamping on the Square Ground motif is seen on the body of these jars. This graph is constructed from data derived from analysis of 3,000 sherds recovered from five complete Lamar square ground sites resolve to show that 10-15 percent are Lamar Incised, 45 percent are Lamar Complicated Stamped, 40 percent are Lamar Plain. A cache of four broken Lamar pipes were recovered from the Coffee Bluff site. Three were typical perishable stem types, however the fourth was a larger elbow type with flange around the bowl.

Another late Lamar site known as the Blood Root site was recently bulldozed in Jeff Davis County on a 35 foot high bluff overlooking the Ocmulgee River. Pipe Creek enters the river immediately below the site. An old 1889 Corps of Engineers map shows a rocky shoals within the river at the base of the bluff. These shoals apparently supported a good population of river mussel, surely exploited by the inhabitants of the bluff judging from the surface scatter of these shells across the site. Also important to this site was the adjacent Tallahassee Trail which crossed the Ocmulgee River at Berkett's Ferry near the confluence of Pipe Creek and the river. The scatter of ceramics at this site consisted of typical Lamar Incised, and Lamar Square Ground Complicated Stamped pot sherds like those at Coffee Bluff.

Two areas were visible that contained concentrations of daub, house daub. Removal of the upper 30 centimeters of soil in one of these daub concentrations exposed stains probably attributable to house post stains. The second daub concentration remains unexcavated, and you can see it on the vertical axis on this particular map here. Trash middens were located near the southwest corner of each daub concentration. Food remains were well preserved. While no evidence of corn was seen here, clusters of charred corn cobs occur on nearby late Lamar sites. Among the potsherds in the trash midden were these two reconstructable vessels. Included in the trash midden were two upper finger rings. One bears perforations, the other one is unperforated. Pinellas-like triangular projectiles were recovered from the house floor. Following the Lamar occupation along the lower Ocmulgee were people who made Altamaha-like ceramics. Jars have larger rim folds and the practice of placing lower reed or solid punctations along the lower edge of the fold joins the earlier trait of pinching. Complicated stamping becomes bolder. A smoothed over check stamped ware is present that appears similar to Ocmulgee check stamped before the period at the Macon site. Some of these Altamaha sherds appear to have charcoal included in their paste as a tempering agent.

Creek Indian sites are recorded on 1 to 2 percent of the sites in the study area. Auchenehatchee is a small Creek site located in Telfair County at the confluence of Sugar Creek and the Little Ocmulgee River. Five restorable vessels from here include Ocmulgee Fields Incised, Ocmulgee Fields Incised plate, and three plain jars with ticked rims. I might mention that in this particular slide you have an Ocmulgee Fields Plain jar, upper right hand corner that is shell tempered, probably one out of a quarter of a million sherds found in the lower Ocmulgee River, so the shell tempering is not a factor, except on the Creek Indian sites there. Later Creek sites reveal
the most present of the Chattahoochee Brushed ceramics. This concludes what I have to say, if anyone has any questions, I'll be glad to answer them.

SHAPIRO - Frankie, you just blew away all the professional archaeologists in the Southeast.

[LAUGHTER]

SNOW - Sorry.

[LAUGHTER]

SHAPIRO - Is that Tama?

SNOW - That's a good question. I don't know. It could be further north, however, there's absolutely no excavation in the area.

HUDSON - Tama was a generalized term that probably referred to everything up river.

WILLIAMS - I think so. A lot of that incising looks very similar to what occurs up in the Piedmont. I mean, you and I have looked at that before together, that multiple line stuff, that beautiful stuff.

SMITH - Look at all that stamping.

SNOW - One of the intriguing things, and I'm not sure, I hope we'll determine that here, is the use of punctuation with those incised...

WILLIAMS - We have none of that in the Piedmont on the Oconee.

HALLY - Yes, but you do have it you have it at the Lamar type site.

WILLIAMS - Well, I take that back, though, one sherd at Shinholser.

HALLY - ...the Lamar type site though, according to what's published has that same, the use of punct...a line of punctations running within the design as well as triangular filler areas.

WILLIAMS - Yes, I guess what it does, the punctates come right up to the Fall Line and no further. At least because I remember at Shinholser last summer, now, we do have one or two sherds that had punctates with incised, but above there, none and that would explain why it does occur here at the Lamar site.

SHAPIRO - You certainly have things in Tallahassee that look very much like your assemblage.

JONES - I would like to say that at least some of your assemblage is definitely seventeenth century. The finger rings are exactly like what we got down there in our Apalachee burials from the seventeenth century. Those two finger rings you've got. They look like...of course they are just sheet brass, rolled sheet brass. That's a very common seventeenth century item.

WILLIAMS - Well, I think...

JONES - I can't tell what you've got, how much of it he's got that's historic and how much of it isn't.

WILLIAMS - Myer has a trail that runs straight from there to Apalachee and you've got the Tama down there. I think that you're seeing the other end of a long term highway that was going between Apalachee and the lower Ocmulgee.

JONES - Apparently so. Now the incised, I don't really see any good Fort Walton Incised material there that you had. You got some weird stuff. You got some incising and punctating that are different from what we get either, generally, historically or prehistorically in the Tallahassee Red Hills area. I don't know what to say about the what you've got.

WILLIAMS - It looks like the stuff from the Piedmont incising with some punctations thrown in there for good measure.

SNOW - The question I have is that down there the continuation of the Macon area Lamar, late Lamar manifestation or is it separate, can we...
HALLY - Your Square Ground.
SNOW - Right. Can we separate that out?
SHAPIRO - I've got a question for you. You probably said this and I didn't catch it. Are there any of these Lamar sites associated with the mounds or do the mounds seem to be completely the Fort Walton.
SNOW - There are no mounds. There are, as I pointed out flat top mounds in the area and we don't really know what the Fish Trap Cut mound is associated with.
JONES - Yes, that one other mound also, you don't know what material goes with it?
SNOW - Yes, it's very obvious that those are Fort Walton sites. Lots of sites there, in fact the destroyed mound I visited in that place had Lake Jackson Plain ceramics.
SCARRY - The Fort Walton Incised from the mound sites over on the Flint, what are the motifs there, mostly scrolls, interlocking scrolls, or...
SNOW - One, the, some of them are scrolls. Frank showed a slide earlier, one that looks identical like the kinds of incising you see there at the Chickasawhatchee Creek centers.
F. SCHNELL - It probably came from that general area.
WILLIAMS - Frankie that stuff looks great. We're going to have to go on in terms of time. One quick question.
HALLY - Is there any motif continuity between your Square Ground and your Altamaha Incised motif, stamped motif continuity between...
SNOW - The Altamaha is basically a simple stamped...
HALLY - Okay, what about the incised motifs?
SNOW - I see very few incised on what I've assigned to the Altamaha ceramics.
WILLIAMS - I have to ask another question. I can't stand it. [LAUGHTER] How late does the cord marking stuff come through time? When does it, when do you think it quits? Your Ocmulgee III or whatever it is.
SNOW - Probably 1350-1400.
WILLIAMS - But not much later than that.
RAY CROOK - I might be able to add something to that. The site that I excavated in this area. I just got the C-14 dates back on the Ocmulgee III Cord Marked, and they came out 900 and 1000 A.D., so at least that late.
F. SCHNELL - Yes, we got a date of about 1240 I guess it was from the Lake Blackshear equivalent of that too.
SHAPIRO - What was that date?
F. SCHNELL - 12...I can't remember exactly...about 1240 or so.
KOWALEWSKI - A single date.
G. SCHNELL - Yes, a single date.
WILLIAMS - Okay, we're going to have to move ahead now down to the coast. Chad is going to give us his version of the chronology of the Georgia coast.
CHAD BRALEY - Okay, this is based on my work at one site, and we have a total of four radiocarbon dates from it. It's at Harris Neck National Wildlife Refuge in McIntosh County, about 40 miles south of Savannah. Of course there's been a lot of work at other coastal Lamar sites, especially at the Irene type site itself outside of Savannah, where there's a good stratigraphic relationship between Savannah and Irene pottery. As far as stratigraphy at the Harris Neck site, we had horizontal differences in artifact assemblages and let's see, turning quickly to the
chronology chart. Looking at all those phases, probably the best known is the English Colonial. [LAUGHTER] Everything else is... there's a lot of interchangeable names for the coast, Irene/Pine Harbor, Altamaha/Southerland Bluff. That's largely based on the lack of radiocarbon dates. So anyway, at Harris Neck we've got some of the first radiocarbon dates for coastal Lamar from two pretty good, really good pits really, basin shaped pits, one that's shock full of everything, midden apparently. And the handout I've sent around shows various types of pottery from that area, from prehistoric to protohistoric contexts. We might as well quickly go through that. Figure 1 shows different rim treatments on the jar forms and all but the last two were from features dated to about A. D. 1400 to 1430 had a sigma on up to about 70, something like that. And I prefer the upper range of the sigma for reasons I'll get into a little bit later. In case any of you were wondering, I'm working on a pretty good headache right now so if I get incoherent just ask me some questions. Anyway, we see some real major...

MILANICH - It's the excitement.

[LAUGHTER]

BRALEY - Yes, yes, I should point out that there's a lot of controversy on the coast. Various, well again, because of the lack of radiocarbon dates, there are various chronology charts that are circulating around.

WILLIAMS - I should add, let me just add right here at this, at this moment, jump right into the thick of this. Ray sent me a chronology that did not get here, Ray, in time to put on the thing.

CROOK - I sent it too late.

WILLIAMS - There was no conscious effort to leave this chronology out. The crux of this is that Ray has the Savannah going later than Chad does.

CROOK - And starting earlier.

WILLIAMS - And starting earlier.

BRALEY - Well, I can't really comment about Savannah because I didn't have any there. So I'm just trying to make some sense out of all the various names dealing with the phases down there. So, again quickly to go into the rim forms. All but the last two date to about A. D. 1400 or about mid-part of the fifteenth century. The last two were from proto-historic middens at Harris Neck. And we've got a couple of radiocarbon dates of A. D. 1650 for that stuff there. Again, we see some wide folded rims coming in during protohistoric period. Another reason why I like that 1400 date or a little bit later is because conspicuously lacking on these rim sherds--we have about 150 some odd rim sherds from this site--are the punctated rosettes which are early Irene. We've got to allow for them to come in at some point or disappear at some point we didn't have any. We've got primarily examples like E and F down there, segmented or punctated rim strip, appliqued strip. Figure 2 shows pre-historic complicated stamping, stamping with filfot cross. Figure 3 gets into your protohistoric period, rectilinear complicated stamping and what's known in Florida and elsewhere as San Marcos cross-simple stamped. Example C has also been used as a hone. It has quite a few sherds used as hones down there. Figure 4, the... all of Figure 4 were dated, were from features dated to A. D. 1400 to 1430, and I think that those that are familiar with the Oconee Valley and elsewhere in the interior, probably Example B could be lost in Dyar phase?

WILLIAMS - Yes.

SMITH - Late Dyar

BRALEY - Easily. Late Dyar phase. So yes, that's, of course, my interpretation of the radiocarbon date and then also conspicuously, almost conspicuously lacking was the examples like
C, which were simple scroll like designs, which was an early type of incising. It was very common at the Irene site itself, which apparently is very early also based on presence of punctated rim nodes on the large complicated stamped jars. So we have to allow, of course, for some chronological development. The incised sherds in Figure 5, keep in mind there's differences in the two scales between Figures 4 and 5, they date to the proto-historic period based on context along with Spanish olive jars, one sherd of Columbia Plain majolica. What I would like to show here is that the incising gets busier through time, and actually the incised lines get a little bit narrower, too. Although the bold incising as in Example B, in Figure 5, never really completely drops out. Again there's a nice parallel between the coast and the Dyar phase and Bell phase in the Oconee Piedmont. So turning now to the chronology chart, I've got, I'm calling this stuff A.D. 1400 to 1450 or so. Actually on the chronology chart I had it to 1450 to 1550, I'm calling that Pine Harbor.

Doctor Larson defined Pine Harbor about 30 years ago as geographically distinct from Irene on the north end of the coast and that's based on the inclusion of McIntosh Incised in the assemblage, which is a minority type. And what I think is going on, probably, is that we have the main population on the coast more or less contracting through time and more or less centering on the Altamaha River rather than the Savannah River. This also parallels developments in the upper, lower Piedmont on the Savannah where it's virtually abandoned by Lamar cultures in fairly early early Lamar, so at the same time the Oconee River valley is experiencing a population increase, I think that the coastal population are moving further to the south to settle on the Altamaha River, which is also supported by ethnohistoric accounts of the sixteenth century. The main body of the Guale Indians occupied a 60 kilometer stretch from the Altamaha to the Ossabaw Island area and there's only one mission I think north of Ossabaw between there and Santa Elena.

So I think there's a nice population of people or lack of inhabitants or habitation. Looking at the map here, for Area 13, I've got two areas circled. The largest one is Savannah and Early Irene sites based on incidence of temple mounds, aggregate village sites, that Ray's defined, and then the smaller areas that Doctor Larson defined this Pine Harbor. And again, I see a shift or a constricting in the population area. So, okay, I think that we can probably distinguish differences, chronological differences, in various attributes in ceramics, rim treatments in the jars and certainly in the incising. So back to the chronology chart, I've drawn in a parentheses there Pipemaker's Creek, to try to distinguish early incising from later incising, so Pipemaker's Creek of course is where the Irene type site is. I can't use Irene because it's been used too much. Again there's a lot of confusion in phase names for the coast ceramic complexes, periods, and phases. Okay I would like to elevate Pine Harbor from a ceramic complex to a phase of coastal Lamar and have it postdating Irene II that Caldwell defined postdating Pipemaker's Creek. So...

WILLIAMS - Let me try and throw this out. Pipemaker's Creek is chronologically equivalent, Chester, would that be to Irene II, as you see it?

DEPRATTER - Well, Irene II would definitely include what's on here as Pine Harbor. True. At least part of it.

WILLIAMS - Let me...let's try this. I think we've got three different perspectives sitting here. I think we've got Ray and Lew and perhaps Jerry's, and I think we've got Chester's as an extension of Caldwell's and I don't know that they're that far apart, although there are some differences. Why don't we just do this one at a time. Ray why don't you, if you would like, address...
RAY CROOK - Okay.
WILLIAMS - ...Chad's chronology first and then, anyone else.
MILANICH - Before he starts I would say rather than drawing a line like we have, we should be
drawing little things that go in and encompass estuaries on the coast. You know, in other words
we've got a bunch of little beans going north, west, south, east.
WILLIAMS - In other words, you're suggesting to define phases by estuary?
DEPRATTER - That's what Caldwell said when he originally defined all those coastal phases in
1939, Caldwell and Waring.
SHAPIRO - Bring it up the Savannah, bring it up the Altamaha? Is that what you're trying to
say? The major rivers?
MILANICH - I wouldn't go very far.
CROOK - I think we need to get some evidence that that's what's happening, before we draw our
little beans.
MILANICH - Well, I like drawing those beans.

[LAUGHTER]
CROOK - My only comment is I'm not sure I agree with your concerns. I'm, in my own mind,
I'm not clear about what Pipemaker's Creek is, and how that simplifies an already complicated
picture. You said your stratigraphy was horizontal. I don't know exactly what that is. I know
what you mean, but that's not...I don't see that as equivalent to stratigraphy. And the distinctions
that you're drawing are based on incising and there very well may be some temporal differences in
incising, but I'm not sure how in the world you would do it from horizontal, quote, stratigraphy.
And I personally feel uncomfortable with seriation cross dating with Dyar with the coast, because
the coast is a specific adaptive area, and I--it might be earlier, it might be later--let's don't make it
equivalent, is my perspective on it. I think my chronology of the coast is simpler. I think of
things in simple terms, and I would simply draw Savannah earlier starting at about 950 A. D. and
there are plenty of carbon dates, I think, to support that if you don't consider St. Catherine's, which
you have in here, only you haven't said why. And the other thing that I think needs to be
explained is there, like you said, you're carbon dates are from this one site. Your date for Pine
Harbor, I guess...is that what you, is that the component you have dated?
BRALEY - Yes.
CROOK - ...falls earlier than dates, C-14 dates for Savannah that I have and are published from
Bourbon Field and Kennon Field. Now maybe the Bourbon Field and Kennon Field dates are
wrong, but I think maybe your date is wrong or maybe both of them are wrong, but I don't see how
both of them can be correct.
WILLIAMS - I think that we've got to seriously consider here though, and we cannot just easily
throw out comparisons with the inland areas though, because we have not just Dyar, but, correct
me if I'm wrong, all of you, I see a lot of similarity in all of the chronologies that we've looked at
today all the over the whole area.
CROOK - My point, you know, if you're going to do the chronologies by cross dating and
seriation, of course, you're going to have similarities in the chronologies. I'm mean it's a self
fulfilling hypothesis too, or it has the danger of being that. My point is very simple. The
comparisons may be valid, but we're dealing with very different adaptive areas, each with it's own
culture history. Draw the comparisons out, you know. I think that's legitimate data, legitimate
information to look at but, for the coast at least, I think that the chronology should be developed in place. It's that simple.

WILLIAMS - Well, let's ask David Anderson. How close down the Santee River towards the coast does your, was it Jeremy, was that the Savannah variant?

ANDERSON - Yes.

WILLIAMS - ...go and do you...

ANDERSON - Well, there's no question. In fact the Jeremy type site was defined by Michael Trinkley at McClellenville. It's an estuary and shell-midden site. However, I would like to point out that the radi...there is very little chronological control in the form of secure radiocarbon dates or stratigraphic evidence for the relationship between Jeremy, which looks like the Savannah variant and then subsequent Pee Dee and later materials. Perhaps the best dated coastal Mississippian material we have is Stan South's work at Santa Elena and at Charles Town Landing where we have really nice time capsules, particularly at Santa Elena and then at Charles Town Landing we have fifteenth and sixteenth century and perhaps later materials. Does that answer your question?

WILLIAMS - Well, I guess my question was then is answered by you that it could be because of the unique nature of coastal adaptations, that Savannah as we recognize it ceramically might last a lot longer than it does on the interior?

ANDERSON - I don't personally think so. But I would say that Savannah might last to 1350, something like that. You have a problem in that Savannah and Pee Dee and the relationships between those complexes have never really been very seriously addressed. Jeff Reed did a little bit of work with that in his '65 Southern Indians studies paper comparing Fort Watson, Town Creek, and Hollywood. But one of the things we really need to do is more comparative studies between some of the assemblages. More cross dating. I personally tend to agree with you that yes, there are horizon markers, that there are trends over very broad areas that seem to...phenomena seem to co-occur, ceramic design elements seem to occur at the same time level over fairly large areas, so I don't personally have problems with comparing coastal and interior assemblages, and if they're roughly similar in many ways saying that they're probably fairly close temporally.

CROOK - We're talking...there's a point though that we're talking now about fairly short time periods. I mean we've gotten our phases down to where we are here about 50 years. Okay?

ANDERSON - Well, I think that, you could have easily a 50 year or so difference in terms of lag effects, whatever you want to call it.

CROOK - Okay, we're talking about generalized cross dating of Mississippian or Mississippi period, I have no trouble at all with that. But if we're talking about some fine scale time distinction, I think there's a big problem, because we're in...I think we, we're putting ourselves in the position of not realizing some important information, that is, the directions of change and stimulus.

ANDERSON - And you're saying the coast is conservative.

CROOK - If we say automatically by cross dating the two things are equivalent.

ANDERSON - You're saying the coast is somewhat conservative then.

CROOK - I suspect what I...what I'm really saying is that we need data from the coast.

DEPRATTER - But if you look at the Irene site where we have on that transitional material that Caldwell sees there as being Savannah stamped motifs with Pee Dee rim form, rim decorations,
with punctated nodes and punctated rosettes and lugs and those things, we very clearly know when those occur everywhere else. They occur in the Hollywood site, which we can date as a late Savannah component on the Savannah River inland from the coast in the Wateree Valley. They're gone by 1350 at Town Creek. They're gone by 1350. If you apply that date at the Irene site at the mouth of the Savannah as 1350 where it is everywhere else, then everything that comes before it and follows it, you know, works out pretty nicely unless you want to carry Savannah up to 1540 in the mouth of the Savannah, which doesn't work with anything else we know from anywhere. You know, I mean how do you explain those Pee Dee like motifs at the mouth of the Savannah River very short interval on Savannah stamped motifs? It doesn't work that way.

MILANICH: Explain your chronology.
WILLIAMS: Pass it around, if you would, Jerry.
MILANICH: In other words, what...
CROOK: I'll pass around something else, too.
WILLIAMS: Why don't you put it on this pad here, and we can tear them off.
CROOK: I'll pass around a few of these, I put together the available to me, C-14 dates for Mississippian, for Savannah and Irene, just to see how it looks, and Altamaha is on here too. What I'm saying Chester is that I'm not at all comfortable in my own mind when Savannah and Irene split, when the change occurred.

DEPRATTER: I agree.
CROOK: I don't know and I don't think you do either.
WILLIAMS: Well, we have it, based on eight places today, and it's all...every place that we've examined today has been plus or minus 50 years at about 1300.
MILANICH: How many are tied to good C-14 dates?.
ANDERSON: On the upper Savannah River I think Dave Hally would agree that we've got pretty good temporal control and we can say sometime between 13 and 1400...
WILLIAMS: Yes, 1350 plus or minus 50.
WOOD: On the Savannah and on the Oconee are pretty tied down, where else? What about the Chattahoochee?
DEPRATTER: There definitely tied down there!
MILANICH: I think one of the problems on the Georgia coast is that there is something of a sacred-secular dichotomy, which is very common place in Florida sites, where in the mounds, for instance, when we worked on St. Simons, in the mounds there are Irene pots with historic material and pottery cache, but the village that goes with it, nobody would have ever called it Irene. I don't know what the hell you would call it. A lot of Savannah Check, Cord Marked, and Check Stamped and other kinds of funny complicated stamp in it.

END TAPE 4, SIDE 2
BEGIN TAPE 5, SIDE 1

DEPRATTER: But who can date musket balls?
MILANICH: Well, I know that it's after 1492.
[LAUGHTER]
DEPRATTER: That's right.
F. SCHNELL: Plus or minus.
DEPRATTER - But, don't you know the dog...how do you know the dog is not intrusive?
WILLIAMS - Hold it down please. Ray?
CROOK - I don't want to monopolize this.
WILLIAMS - Well, we can't do that, because we've got to go on in about two or three minutes anyway.
DEPRATTER - I bet Charlie's grandfather buried that dog. [reference to Charles Pearson]
SAİNDON - I've got about ten of these in and around the table, for those who want to...
CROOK - First of all, as I tried to argue, I think at one point before, what Savannah is on the coast isn't necessarily what David Hally is calling Savannah in the Piedmont.
MILANICH - That's right.
CROOK - In fact, it's from my view, it's very dissimilar. The Savannah on the coast is a is a specific cultural adaptation and the ceramics are primarily cord-marked and check-stamped with a smattering of complicated stamped. It begins much earlier. And there are some very early C-14 dates for Savannah up and down the coast.
DEPRATTER - For what you call Savannah. What Caldwell has called Wilmington in some places, St. Catherine's in others.
CROOK - No, I'm not. I'm not confusing Savannah and Wilmington.
DEPRATTER - How about St. Catherine's?
CROOK - St. Catherine's, I don't believe in, so...
DEPRATTER - So, what other people have called...
CROOK - I'm not confusing it, I'm just not acknowledging it.
[LÀUGHTER]
WILLIAMS - Why not?
CROOK - Because it, that too, I don't think has been stratigraphically demonstrated, and Chester and I have argued about this before. I don't see a true evidence for anything but a logical transition between Wilmington and Savannah that's satisfied mentally by St. Catherine's. I don't see the real support for it. Furthermore, at the Kennon Field site, I think that in excavations there, that what Chester calls St. Catherine's and what Chester would call Savannah occur in context that are contemporary. So I think that there's evidence to the contrary that...
DEPRATTER - You interpret them as contemporary, but there are plenty of places where there is St. Catherine's without anything that would be called Savannah.
CROOK - That's true.
DEPRATTER - ...like John's mound on St. Catherine's and Mary's mound.
CROOK - They occur in distinctive contexts.
MILANICH - Are there any village sites that are St. Catherine's?
DEPRATTER - Well, the stuff that's at John's mound is in the fill, so that it's not mortuary vessels, there are no mortuary vessels that go with St. Catherine's.
MILANICH - What do you mean?
DEPRATTER - It's just, you know, broken sherds used to construct the mound fill, I mean as a mound fill.
MILANICH - Has anyone ever dug a St. Catherine's village site?
DEPRATTER - Sure, I have. Caldwell did. Caldwell in his report on St. Catherine's tested several St. Catherine's middens, and there's a site that Paul Webb and I dug on Skidaway Island that's St. Catherine's.
WILLIAMS - Are there any potential stratified sites on the Georgia coast that could be excavated to clear this up?

DEPRATTER - The Deptford site was the only clearly stratified site I've ever seen. I mean there's other, you know, shell middens that are pretty jumbled, but Deptford had clear stratigraphy and it's still partially there so it might be a place to go back to.

SHAPIRO - And you have to rely on horizontal stratigraphy.

WILLIAMS - If there are no good stratified sites then it appears that we're going to have to get a lot more excavations and a lot more carbon dates before we can resolve the differences here, does that seem about right?

DEPRATTER - Sure. Before you can resolve the issue.

CROOK - I'm not sure carbon dates are going to do it, but something, we need to have some...

WILLIAMS - Dave?

HALLY - Okay, Ray, you chided us for...

CROOK - I didn't chide.

HALLY - ...circular type of reasoning with the seriation you know, a cross dating we end up with all the sites being contemporaneous.

CROOK - Right.

HALLY - Well at the end of the sequence, the Lamar sequence, we can pin down the end of our seriation quite well with iron art...with European artifacts. At the Bell phase material in the Wallace reservoir has peach pits and is early seventeenth century presumably. It has the characteristics we expect for that time period. Go up to the Barnett phase, roughly contemporaneous, a little earlier, it looks a little earlier in terms of our ceramic seriation. Go up to the upper Savannah River the same things holds there for Cherokee, early eighteenth century Cherokee. At least the late end of our cross dating seriation, seriation based sequence seems to be valid and I think that should work earlier.

CROOK - How does that work with Altamaha on the coast? Does that seriate well?

HALLY - I think what we've seen today is beautiful, these late rims are beautiful for late, for proto-historic, for early historic. I think I would suggest one other thing, you see the coast as like it's a sacred cow. It's like it's outside the universe of the Southeast. I don't think it's that different.

CROOK - No, I'm not saying that, I'm not saying that at all.

HALLY - Well, you've continually said that it's different, it's a different adaptation.

CROOK - That's right and I think that's important. I'm saying that it's a very different adaptive area and that should carry some weight in the way that we deal with it in cross dating, that's my point.

SMITH - But we can so easily document trade with the coastal area in shell and things, I mean there's obviously interaction going on between the two areas so why do you...

CROOK - Well of course, it's not. Don't carry my argument to that extreme.

WILLIAMS - Well, we're going to have to move ahead now...okay we'll give it five more minutes. Yes, David?

ANDERSON - Glen Hanson has recently excavated a site that has middle and late Woodland components on the Savannah River plant the G. S. Lewis West site that has in stratigraphic context Deptford Linear Check Stamped graded into a bold cord marked, grading into a fine cross cord marked all of which is sand tempered material, which you can loosely translate as the interior
equivalent of Deptford/Wilmington/St. Catherine's. Now there's no subsequent Mississippian occupation of this site, but he is planning on submitting a number of C-14 samples. He has excellent contacts for many of the materials that he's excavated, and I think that at least in that case it will help us to resolve some of at least the transition from so-called Wilmington to the interior St. Catherine's equivalent, which again, is a confusing picture.

SMITH - I agree with Ray, though, that I don't think Carbon 14 is going to solve this because I, there seems to be a real breakdown in this period because I had a problem with my dates, Hally had a problem with his dates, and I believe Doctor Larson's had trouble with Etowah dates.

CROOK - It's too recent.

F. SCHNELL? - I think we...

CROOK - I don't know if it's going to work. I have a couple of samples submitted now for TL dating, and since we're dating the sherd directly, you know, it's possible.

SMITH - We tried that too and we didn't have any luck with it.

WILLIAMS - If we ignore for a moment the surface decorations of the sherds, you know, cord marked, complicated stamped, or check-stamped, what have you, and looked just at the rim sherds you, when do you think for instance, rosettes?

CROOK - We don't get rosettes where I'm working.

WILLIAMS - You don't get them?

CROOK - No.

DEPRATTER - No, there at the mouth of the Savannah River.

WILLIAMS - They don't go down south of the mouth of the Savannah River?

BRALEY - They are on Creighton Island.

DEPRATTER - There on, yes, there on Ossabaw, you know there on some sites on St. Catherine's. Not on St. Cath...not on Savannah though.

CROOK - On Savannah Check Stamped, they're on Ossabaw?

SCARRY - Ray, the one thing that sort of bothers me about throwing out cross-dating the interior sites, regardless of the adaptation, the practice, the stylistic designs, unless you, I think could show some sort of correlation with functionally distinct vessel forms tied to the adaptation, you have to postulate that there's some sort of filter causing a time lag in exchange between the inter coastal groups, it's causing a time lag, and I'm not sure what that filter can be, and I can't see a mechanism and cause.

CROOK - There are a lot of things that are different on the coast in terms of the way these folks are living and I...

LARSON - But style is not adaptive.

WILLIAMS - I'm not sure that adaptation and what you eat would affect how you make your pots.

LARSON - There's no adaptive value to style.

WILLIAMS - That's right.

LARSON - ...and that's what we're dealing with here is style and so I would disagree with Ray. Well, let me tell, let me just say something because I haven't said anything. The Pine Harbor site had no trade material. There were no Spanish ceramics on it at all. I dug five middens. And that's why I said it was pre 1565. I dug at the Harris Neck site and at Fort King George, which did have Spanish ceramics and they had, and the Indian ceramics were different. There was a qualitative and a quantitative difference in the types of ceramics. They were associated with the Spanish material they, as far as I'm concerned represented the Mission period ceramics. But I saw
no hiatus between the Pine Harbor site and the Harris Neck site. They were stylistically in continuity. And that's why I think that Pine Harbor, which was Irene, had to be very close in time to the beginning of the Spanish period. There was nothing in there, there was no gap. The same motifs continued on into the Altamaha or what I call Southerland Bluff, the same designs, vessel shapes, that sort of thing. There was no break, and for me then the Pine Harbor period...complex could not have represented a period which existed very long prior to the Spanish appearance on the coast.

**WILLIAMS** - I think we'll let you have the last word on it today, thank you Doctor Larson. And we'll move right ahead to Jerry talking about Florida.

**JERRY MILANICH** - Why don't you let John go first, because that would follow better since there aren't any Lamar sites in this area of Florida.

**WILLIAMS** - Okay, let's do that. John.

**JOHN SCARRY** - Well, I think first I'll start at the Apalachicola Valley which is, for those of you who don't know, the extension of the Chattahoochee in Florida. And it's starting...unlike the chronology that Gary did here, I start with Late Woodland from a Woodland Late Weeden Island, and in the Apalachicola Valley you have large numbers of sites with assemblages that are dominated by check-stamped ceramics. I think at Sycamore, Jerry, you got 60, 70 percent of all sherds were check-stamped, 97 or 98 percent of the decorated pottery was check-stamped. Almost everything of decorated wares, other than check-stamped was cob marked. We have a number of radiocarbon dates from the Sycamore site that Jerry got, 860, 830, 860, 850, something like that. A good ninth century occupation. Then following that we have I've called Cayson phase based on excavations at the Cayson and Yon sites and Curlee sites, which are immediately south of and north of Jerry's Sycamore site. These sites have or had medium sized platform mounds, 25, 30 feet high. The lower levels at the Yon site, lower levels at the Curlee site, and I believe the lower levels at one of the earlier occupation at the Cayson site itself, we have maybe 10, 20 percent check-stamped pottery, 3 or 4 percent cob marked pottery, and what would more traditionally be called Fort Walton pottery, Lake Jackson Incised collared bowls, horizontal lines, Cool Branch Incised, traditional Moundville arcade, one or two rows of punctations bordering the arcade, loop handles, a reasonable Mississippian assemblage.

In the lowest levels at Cayson we have maybe 10 percent pottery is shell-tempered. After that shell tempering essentially disappears in the Valley, disappears from this part of Florida. I'm not at all...the dates for the Cayson and the Yon sites range from very late tenth century through the early twelfth. Sometime during that period check-stamped pottery disappears in the upper levels, the shell-tempered pottery drops out when you get, if you look at Willey, a classic Fort Walton assemblage. So when you look at the chronological chart here I would have a tendency to move the line through Sneeds and Cayson down a bit, because that's supposed to be marked by the disappearance of shell-tempered and check-stamped ceramics, I would probably drop that down a good way.

**SHAPIRO** - Where?

**SCARRY** - I'm not sure.

[LAUGHTER]

**WILLIAMS** - No, No, No!

**SHAPIRO** - How many centimeters are you talking?

[LAUGHTER]
SCARRY - Maybe a half a centimeter.
SHAPIRO - Okay.
WILLIAMS - A half a centimeter?
SCARRY - Actually what I do, I do this big wavy thing. There is no complicated stamped pottery on any of these assemblages there can, even the Sneeds or Cayson phase assemblages. There is complicated stamped pottery. Lamar pottery in the Apalachicola Valley occurs in the upper component of the Yon site. It's very rare elsewhere. There are lots and lots and lots of Late Woodland sites. They're everywhere. There are lots and lots and lots of Fort Walton sites, Cayson or Sneads phase sites. They're everywhere. There are very, very few sites that have Lamar Complicated Stamped pottery, just unfortunately one of the three that we have dug had complicated stamped pottery. Mostly bull's eyes, concentric circles, some of which have crosses in the middle. That's the dominant motif in the complicated stamped pottery. We have two radiocarbon dates that we can look at to estimate when complicated stamped pottery might appear again in the Apalachicola Valley. One of which Ripley Bullen obtained from site J5, the Woodruff site, essentially at the confluence of the Flint and the Chattahoochee. He got a date of...
WILLIAMS - John would you speak up a little bit please.
SCARRY - 1400 plus or minus 200. That's an early Michigan date. That's two standard deviations, 1400 plus or minus 100. There is no complicated stamped pottery at that site. I obtained a date of 1310, I believe, plus or minus 80, from the level immediately below the levels containing complicated stamped pottery at the Yon site. Guessing based on the dates from the Singer site, my guess is that it comes in sometime post 1400 or around 1400. But in the valley, the Apalachicola Valley, we see a dramatic increase in the number of sites in eighth, ninth, tenth centuries. I don't know if that means an increase in population, just there are a lot more sites. They don't get any smaller. There are a lot more of them. We have a lot of sites, especially big numbers, for 200 years to stay the same until maybe about 1400 when it drops off. In Tallahassee, we move over to Tallahassee Hills, 50 or so miles to the east, we find that there are very, very few Late Weeden Island sites in the Tallahassee area, or at least in Leon County. There's a dramatic increase in the number of sites when you get into the Fort Walton period by Lake Jackson phase. I think it goes from 35 sites to a hundred and some odd. There's just a lot more sites in here. I don't know if we're mapping a population increase or not.

The ceramic assemblages in the early Fort Walton components in the Tallahassee Hills lack or essentially lack check-stamped pottery. They lack the Weeden Island vessel forms. They lack the Woodland forms that are seen in the earlier components in the Apalachicola Valley. They lack, essentially lack shell-tempered pottery, and as an estimate, they look like things maybe a hundred years into the sequence in the Apalachicola Valley in assemblages. The Cool Branch Incised, Fort Walton Incised, Lake Jackson Incised, Lake Jackson Plain, that lasts. We have two dates from mound 3 at Lake Jackson and we can apply to the question of when this stuff dates to. One from the bottom of Mound 3 which is 1265 plus or minus 80. One from the final cap of the mound 1450 I believe plus or minus 70 or 80. There, I think John Griffin in his excavations at the Lake Jackson site got maybe two or three sherds of Lamar Complicated Stamped pottery. It's not there. We do have a lot of sites hopefully Gary will mention something about the end of this in Leon County that we do have complicated stamped pottery. It's not very common at the Velda site. About 7 or 8 percent of the assemblage is complicated stamped pottery. About 3 percent of it's check-stamped pottery. Almost all of the rest is plain.
At the Velda site we have two dates. One is...these are uncorrected...A. D. 1505 plus or minus 80, and the other is A. D. 1520 plus or minus 80. We have two dates for another farmstead that looks earlier typologically, but it has less complicated stamped pottery or pottery that looks like it came from Lake Jackson. We have two dates for that. One is 1400 plus or minus 80 and the other is 1320 plus or minus 80. So I'm estimating the transition...so a wild guess is sometime in the 15th century in this area. We seem to get, if, ignoring the absolute value of the dates, we seem to get an increase amount in the complicated stamped pottery from the High Ridge site, which is the earliest one, where it's, I think, less than 5 percent, to Velda where it's about 7 percent, to some of the missions where it's...

JONES - higher, just say it's higher.

SCARRY - ...higher, 15 or so. There also may be some changes in the stamped motifs, complicated stamped pottery at Velda, one of the earlier sites. It's almost exclusively concentric circles. At one of the Jefferson County missions...

SHAPIRO - It's very rare at San Luis.

WILLIAMS - What is?

SCARRY - Concentric circles are very rare.

WILLIAMS - Okay.

SCARRY - At Scott Miller site, which is one of the type sites with the Jefferson culture that Hale Smith excavated, 85 percent of the complicated stamped sherds were nested parallelograms. I'm not sure what it is at San Luis.

SHAPIRO - It's like that at San Luis.

SCARRY - So somewhere between 1450 let's say and 1650, we have a fairly dramatic shift in the motifs on the complicated stamped pottery, but I don't know when that occurs. The very latest assemblages are marked by all sorts of garbage from central Georgia, I think.

WILLIAMS - Hey, wait a minute.

[LAUGHTER]

SHAPIRO - Meaning me, I came down to visit and...

[LAUGHTER]

SCARRY - And unfortunately at the sites we excavated that date to the 17th century, a lot of European derived vessel forms occur, and these tend to screw up our estimates of what the poor peons, who used to be commoners, were doing out in the hinterlands.

WILLIAMS - Okay, let me ask a question here, based upon conversation between you and Calvin. Particularly Calvin.

JONES - I'm not going to be held accountable for what I said, am I?

[LAUGHTER]

WILLIAMS - Well, I don't know. Do you see...tell me about the break between the Lake Jackson stuff and the complicated stamped stuff...do you see it as...is there a continuity there in terms of people or is the break so great that you have difficulty talking about the same people just slowly changing there styles of ceramics? I think let's let Calvin address this.

JONES - Well, I'll say a few comments and then let John say something too. To start out with it's a difficult question to answer in terms of the transition. If you have a site or two with a transition, in other words, that seems to be exhibited on the material from those sites. John mentioned the Velda site, which is a one mound site, that was occupied by apparently, or the mound was built we're not sure, a little earlier than the time this transition started. The mid or middle 1400s
apparently was when it happened or say in no later probably that it began. It's Lamarian influence into a non-stamped pottery tradition, Mississippian tradition, Gulf tradition, Fort Walton/Mississippian purely without any influence. It all started around 1500 A.D. if not before, maybe 1450. Lamar people obviously either invaded or they influenced this existing culture within that region. In other words, they're either involved or else there was either...the people were either taken over or a combination of the two. Transitional sites, as I would say, for that area, that are not Mission period are termed the Lamarian type sites that are not directly Mission period--we don't have much of a handle on those. In other words, we don't have many sites you have any dates from, except the one or two that John, the two that he mentioned. Those dates do tend to support the idea that transition occurs a good bit before much contact, not too long before Narvaez got there in the 1520s or DeSoto in the 30s, but it does seem to indicate that the transition began before Desoto arrives.

WILLIAMS - But you think it was a rapid transition?
JONES - Well...
WILLIAMS - I'm not trying to put words in your mouth.
JONES - ...it's very, very difficult for me to say. I think it was rather rapid.

[LAUGHTER]
WILLIAMS - Okay.

SHAPIRO - Calvin has seen vessels, good portions of vessels in a single pit context, one of which looks like Fort Walton derived and the other is complicated stamped with a folded rim, and they're not just...isn't that right, the High Road pit house that...

JONES - Correct, correct.

SHAPIRO - So both of them are contemporaneous at some point. You have Fort Walton style and complicated stamping, and...

JONES - Right, but the problem is if you look at both ends of the continuum the prehistoric continuum there, the prehistoric peoples known as Fort Walton there, and then you look at the Mission period, Leon Jefferson, and then you look at Lamar and components of it versus the non-influenced, non-changed Fort Walton culture where obviously Leon Jefferson became a culture, a blending of the two cultures, Fort Walton and Lamar. It's actually more Lamar, and if you had to make a judgmental point by point value or system and try to rate Leon Jefferson or the Apalachee as a culture in the kind of pottery and artifacts they made, to try to rate them with a...were their origins more Lamarian or are they more Fort Walton?, they would be, I think, more Lamar, particularly some of the incised, Fort Walton Incised varieties. John Scarry has a number of varieties that he's pulled out that your aware of. Some of those have continued on into contact times, whereas most of them were dropped. Most of the original Fort Walton varieties of incised and incised and punctated wares were dropped. They were not continued into historic time. I want to get back to the original question. What was the original question?

[LAUGHTER]
WILLIAMS - I think that you answered it. John?

SCARRY - Okay.

JONES - Vessel forms.

WILLIAMS - Go for it.

JONES - Vessel forms are one of the things that dramatically changes from the pre-contact time to the contact time. You get the short collared simple bowl forms along with beakers and bottle
forms in prehistoric time and then Fort Walton and a lot of these forms changed. You're going to get into the cazuela bowl form about the time of contact. Cazuela bowls come in, bigger bowls come in. You drop all the handles. You drop all your appendages, drop most of them compared to what you had all of the shoulder type appendages that Frank ran into. We don't get those at all in historic times. So the vessels become larger. You get into a lot more jars. None of those jars in historic times except for copy ware, Colono-Indian wares, have handles on them anymore. Handles with big loops in them, pitcher handles that were Spanish copy wares. So a lot of changes in form take place in that interval.

WILLIAMS - John.

SCARRY - Okay, change is dramatic, I think, relatively abrupt, and encompasses a lot more than decoration on the pots.

WILLIAMS - Such as.

SCARRY - Mound centers are abandoned, I think. Vessel forms change. Vessel decorations change. They change very markedly. Instead of the pottery looking like it came from the north and the west, or the west, it looks like it came from Georgia, but in other respects the change is not so marked. Louis Tesser tried to divide what I would call the Lake Jackson phase into an early and late based on what he saw as a chronological trend in temper size, and divided then what I had called, what is Leon Jefferson to an early and late Leon Jefferson, which is roughly prevalent to my Velda and San Luis phases. There is far more continuity in settlement location between late Lake Jackson phase and early Velda phase than there is between early Lake Jackson and late Lake Jackson phase.

G. SCHNELL - I think that holds as you go up north.

SCARRY - So that to me suggests that there is some continuity in the rest of the population. So that there is dramatic change in who they're interacting with, but I don't see some hoard of complicated stamped people coming out of Georgia, and you know, beating the smuckers out of somebody living in Tallahassee and driving them into the sea.

WILLIAMS - On the other hand...

[LAUGHTER]

SHAPIRO - One observation I would like to make about that about the Tallahassee varieties of Lamar is that it's interesting that there's a total absence of punctated folded rims, cane punctated folded rims, and I think cane punctated is something we can draw another line around on a broad scale to really tell us something about broad scale interactions. We have the cane punctated rims in the Ridge and Valley and we have them in the central Oconee drainage and you have them all to the east including the coast and the Savannah and the Wateree, and they effectively disappear from the Oconee drainage and from the Ridge and Valley sometime 1450, or something like that, but they continue along the coast and they continue in the Wateree and the Savannah drainage. They're never present at all in Tallahassee and I think drawing those time lines for presence/absence...

JONES - That's not quite true. They're very rare.

G. SCHNELL - But they're not as many.

JONES - They're there.

F. SCHNELL - I was going to say I happened to look at Bull Creek stuff the other day and out of, let's say, 3,000 sherds there was one.

SHAPIRO - That's a good deal.

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G. SCHNELL - Yea.
SMITH - You don't get then at Little Egypt do you?
SCARRY - The other thing that the late pottery, some of the late pottery in Tallahassee I've seen sherds tempered with typable sherds. There are real big, course grog tempered and the temper is something that looks like check stamped sherds.
WILLIAMS - Maybe I'm wrong but it just looks like to me that the relatively rapid and extensive change that you see in that area looks a bit greater than many of these other sequences that we've looked at and what that means I don't know, but I think that we should at least accept the possibility that we don't have to have continuities in every area from 1000 A. D. to ...
SCARRY - Well, if we lack the continuity in Tallahassee hills then based on the same argument, then you lack it in the Apalachicola Valley and I think the lower Chattahoochee.
G. SCHNELL - Yes, that was...
F. SCHNELL - Well, you know you're talking about...
SCARRY - Where did they go, though?
G. SCHNELL - Good question?
F. SCHNELL - You know, you're talking about...unless you stretch your imagination on the Georgia coast, it doesn't have to interface with anything to the east, you know, whereas on the Chattahoochee it does have to interface with something to the west.
G. SCHNELL - Well, I think that...
WILLIAMS - That's a good point.
G. SCHNELL - ...when you...the Chattahoochee is a good example of the north and the south trying to, you know, gain control of an area, but at Singer we have I think like 120, not quite, 115 comp stamped sherds, I shouldn't, at Singer during the Singer phase. I think we're going to define it. I don't know how much Frank said, so kick me if I repeat it..
WILLIAMS - Jerry.
G. SCHNELL - ...but there's a gap after that before you get into Bull Creek, and there's a big change because Singer doesn't have a lot of comp stamped. Singer has, well, it has 23 comp...Fort Walton sherds, and they are the same, some of them are the same kinds you get at Clay County 51, or on the top of Mound A at Rood's, but this is, as Frank, I think, probably mentioned, all falls on the other side of Bull Creek in terms of seriation, and the dates for Singer site would be roughly 13-1400 so give or take 50 years or...we don't have enough dates that--don't make any bets--we've got one good one from Singer, two good ones from Singer, but I don't think we have anything to fill in that gap right there at the moment. I had thought we did before and we don't.
WILLIAMS - We're going to have to go ahead right now. Jerry would you give us a brief synopsis of east Florida.
MILANICH - Wait a minute. Now, I'm going to have some preliminary things to say on what I observed, but first, Frankie, now there is a mission site that's mentioned in the early seventeenth century documents 50 leagues north of the mission road north Alachua County, which puts it right in Number 12 lima-bean-shape-area. [LAUGHTER] I'll bet that there's a mission there. Going to the Georgia coastal argument, here, I think here's part of the big screw up on the coast is your seeing on the coast what we've seen through north peninsula Florida, and that John Griffin pointed out originally in Sears, is that what happens in terms of the evolution of ceramic styles in villages can differ a great deal from what happens in the evolution of ceramic styles of pots that are stuck in mounds. And the original description that Caldwell gave were placed on pots that came out of the
Irene Site mounds, whereas what Ray and what I've argued and others are from village wares and I would guess...

DEPRATTER - That's not true.

MILANICH - ...have you ever dug a Savannah mound that has put in, or that contains all check stamped and cord marked pottery?  In other words, there are differences in what you find and, for instance, in Weeden Island there are some kinds of pottery 100 percent, never one sherd of certain kinds found in villages.  I'm not suggesting that on the coast certainly there is overlap, but I think that's part of the problem.  The same thing happened with Copina.  They had extra phases in there because, and they never could find any Copina villages, but then they found out that what was in the mounds was very different from the villages, but I think that's something to think about.  If we're working only with the village material we get this seriation, and also I think part of the problem is how some..., it's a shame these inland guys take words like Deptford and Savannah and start using them.  What is Savannah on the coast is quite different that what it is inland.  And for instance, I went to the Savannah River plant to visit Glen's Deptford site so far up these guys probably never even heard of the ocean.

When you look at the style of pottery...when you look at the check stamped pottery, that check stamped looks like Deptford check stamped or Savannah check stamped or Cartersville check stamped or other names, when you look at the rest of the assemblage it looks like something you would see up in on the Etowah River during the earlier Middle Woodland.  So perhaps what we need to do is talk about Inland Deptford and Coastal Deptford and that's such a simple thing we'll never get new names now, Inland Savannah, Coastal Savannah and recognize in our heads that these Deptford peoples living on the coast are not the same ones going up the Savannah River to the Savannah River Plant.  I think Frankie Snow on a survey that he published back I guess in the 70s now was saying that you know, there's this inland cord marked Ocmulgee Culture and these guys never closer to the coast than about 50 miles or some about 80 leagues.

ELLIOOTT - 80 leagues?

MILANICH - 80 kilometers.  But I think that this is...we've got to keep this in mind...we're back to Florida now.  There are no Lamar or even Fort Walton sites in peninsula Florida.  I don't know of any Fort Walton sites...there may be some east of the Aucilla, but if there are some, they're damn rare.  So we can draw a line up here that goes--cuts off part of extreme southeastern Georgia and peninsula Florida.

SCARRY - Jerry didn't they get Lamar Complicated Stamped from the Parish mounds?

MILANICH - You may get some sherds, but you're not getting sites.  Christ the sherds are all the way, you know.  I mean that's five sherds, but it's just, why is this?  Why do we have Timucuan speakers in peninsula Florida and Muskogean speakers above that line?  Why in central Georgia, I mean in central Alabama does that north-south line that Jim Knight mentioned before, why is that there from early Woodland on up?  Is it because there are linguistic differences, or are the linguistic differences the result of these other differences?  I tend to think that linguistics don't cause anything.  I think that resolves from it.  But that's an interesting thing to look at; why is this...?  The other thing in looking at all these Lamar things that all of these sherds look alike to me, I tell you.  [LAUGHTER] There seems to be a couple of important things happening and one, and I may be wrong on this, why aren't there any huge, humongous Lamar sites like where we are here at Macon Plateau or at Etowah?  Why,...is there a difference?  There seems to be a date of about 1250 that we keep coming up with.  Are things before that time, the social and political
organization before that time, somewhat different in Mississippian than after? What's going on there? What's going on with this Lamar that it seems to be so much later at the edges perhaps and...

DEPRATTER - at least on the coastal edges.

MILANICH - ...maybe down here in northwest Florida. What's going on with this expansion? What does it mean? I think that if we only ask questions of chronology and I know that's not what doing, that we're just focusing...

WILLIAMS - That's tomorrow.

MILANICH - ...we'll never get anywhere and I think that what's important are to ask the big questions and let the chronology fall out and it will, but I understand that what we're doing today is to develop some techniques for letting it fall out. The other thing is, this line in north Florida that's always interests me between northwest Florida, the panhandle and the peninsula, is not there before about A.D. 750. We get Weeden Island peoples across here. It's in late Weeden Island times at about 750 or 800 that things begin to go differently, and of course that's an important date in terms of agriculture in areas in other areas of the southeast. It would be fun to put the biological anthropologists to work. We're going to here about this tomorrow, in the Southeast and get some samples, get some studies going of pre-800 versus post-800 and get some of those pre A.D. 1250 Mississippian guys and some of the post-Lamar and see if there are dietary changes in there, too. That would be interesting stuff. Two-for-one at the Hilton, let's go home.

[LAUGHTER]

WILLIAMS - One minute, please. Actually less than that. Obviously, Jerry is ready for tomorrow's session. I think we've all had enough chronology, but I do want to read to all of us the last couple of sentences of some comments by Sears in 1958, from the Wilbanks site report, of all things, and we'll just end with his last words, "...while most Lamar variants are readily recognizable as Lamar on the basis of the rim form and surface finish there is a great deal of internal variation. Some of the variants were pointed out in preceding chapter others are known to the writer and to other workers near it and will be documented in the future. The point is that we may eventually work out temporal and ethnic variants of Lamar pottery complexes with some exactness. We need not give up and simply reiterate Muskogean culture of the sixteenth century."

Let's go, now let's go get a beer.

[APPLAUSE]

END TAPE 5, SIDE 1

END DAY 1

BEGIN TAPE 5, SIDE 2

SHAPIRO - ...with a the very enjoyable task to try and organize these abstracts into a program. And I was impressed by at least three aspects of all the papers that are going to be presented this afternoon. The first is, there's a tremendously wide range of approaches to understanding late Mississippian societies. And I would say that most of the modern concerns or things that anthropologists are interested in are reflected in some of these approaches. They range from regional studies of political systems to the organizations of single groups. We have the study of
how architecture reflects social and political structure. We have studies of human biology and what it reflects in human societies. And then finally, a series of papers on ecological approaches to understanding Mississippian and Mississippian variability. The only broad topic that I could think of that isn't represented is some treatment of ideology, and we know that there has been some recent work and some recent thought along those lines, and Jim's work and Charles Hudson both have been concerned with those aspects, and maybe they'll come up in the conversation. Well the range of topics is one thing that's impressive. The other thing was I tried to group these abstracts into some categories that would make sense together, and I found some difficulty indicating, like you see on the sign when you leave the site here, "All Things Are Connected" and that's a really good sign that you can't really segregate, "Oh this is just an ecological study or this is just a political study" and so on, everybody recognizes how these things are interrelated.

Finally, all of these papers have something substantive to contribute, and that was another amazing thing about all these abstracts. I think what it points out is that the data are finally catching up with the anthropology. I remember talking with Charles Fairbanks about what they had hoped to accomplish in WPA work in this region, and he reminded me that all of them were trained as well-rounded complete anthropologists, and they wanted to look at anthropological issues, but they were faced with the prospect of straightening out the chronology from scratch, and they were at a certain point in time where they had to stop there, developing the chronologies, and couldn't get into some of the other questions about societies and social development. And the students of those people have now reached the point where some of those data are catching up with some of the Anthropology. I think that's pretty interesting. So, without being too somber I would like to at least remember some of those teachers and dedicate the session to Charles Fairbanks and Joe Caldwell, Hale Smith, and others who have laid the foundation for us to be able to talk about the anthropology of these southeastern societies. And with that I'd like to turn to Doctor Hudson for his presentation.

CHARLES HUDSON - I apologize for the graphics, they're not very good. You'll just have to bear with me. I think if you use this map on which the program is printed that you'll be able to follow some of the things I've got to say fairly well. Recent research on the routes of Hernando DeSoto, Tristan DeLuna, and Juan Pardo, the three explorers who reached the interior of the Southeast in the sixteenth century, has made it possible to locate some of the native polities with some accuracy. Once we are confident of this reconstruction it will be possible to flesh this skeleton out with additional information. Laudonniere, for example...I recently linked into the Florida part of it. I think Spanish mission material will link into it. And likewise archaeological information can be used to flesh it out and fill it out so that eventually I think it will be possible to have a fairly complete social geography of the Southeast in the mid to late sixteenth century. In other words, who was living where? What polities were located where? And some idea of the relationships that existed among them. It is also going to be possible to get some idea of and to get some historical documentation of the actual structure of these chiefdoms. In other words, what kinds of positions of power existed in these chiefdoms. It may also be possible to get some idea of the inner societal dynamics. In other words, I can now conceive of a geopolitics of the sixteenth century Southeast. In other words, big scale political relationships across the entire area from the Mississippi River to the Atlantic Ocean.

The fullness and quality of the documents of these three expeditions are quite different. It is not suitable, the quality of the documentation is not suitable for any sort of application of
comparative method or any other quasi-scientific method. In other words it's just not that comparable. It does however, lend itself to the approach that the French social historians have taken, which is to build up a structural model of the past to use all the information that you have, realizing that some parts of your construct are better documented, better affirmed by evidence than other parts and to then try to fit the events that you're trying to explain within the structural model. So that's the approach that I've taken. The documents of the Pardo expedition contain the most survey-like information. This is the most consistently noted down information of particular chiefs met at particular places with particular kinds of transactions. Pardo was intent on being conciliatory, on pacifying the Indians, and of opening up a Spanish door into the interior of the continent. Hence, the social information on the Indians of South Carolina, western North Carolina, and the upper Tennessee Valley are more complete than for evidence anywhere else.

From the Pardo documents it is clear that in the south Appalachian area there were three positions of power--three positions of social power in these chiefdoms. The lowest level was the chief they called "Orata." The name would be the name of the town and then "Orata" is the second. Perhaps the best translation of this would be "head man." It appears that every village had an Orata--even little tiny ramshackle villages--the ones they went through as they were going up the Coastal Plain from Port Royal Sound to the Congaree River. In at least one instance it is clear that an Orata had other villages that were subject to him. So, in other words, this is not just the lowest man on the totem pole in at least one instance, but I still feel that "head man" is the best translation of this. Pardo dealt with about 80 named Oratas on his trip. And there were others he did not name, so there were many of these. The next level of power was "Mico." Pardo only met three of these. Guatari Mico, whose chiefdom was centered near Salisbury, North Carolina on the Yadkin River; Joara Mico, whose town was near Marion, North Carolina on the upper Catawba River; and Ola Mico, who was on Zimmerman's Island, French Broad River and was the chief of Chiaha. So there were only three of these. In a footnote, Juan De La Vandera, who was the notary for the expedition, gave a definition of Mico as a great noble, "un gran senor," whereas an Orata was a minor noble "un minor senor." So perhaps the best translation of Mico is chief, the best English translation. That's two levels. Above the Mico there was a higher chief whom Pardo heard about but did not meet. There was just one of these that he heard about and did not actually meet him. And this was the chief of Coosa, the one they called "Casica Grande." They called the Grand Chief. DeSoto and Luna used this identical term. In other words, this was a chief of chiefs--a chief who exercised control over other chiefs. So perhaps the best English translation of this particular position--they recorded no Indian word for it unfortunately--would be Paramount chief, and that's what I'm calling it. DeSoto met this guy when he went through 26 years earlier, and he was just what you would think a Mississippian chief would be. He was carried on a litter. He was dressed in finery. He had a bunch of principle Indians along with him who were playing on flutes and singing as they carried this guy along. He's just what you would think a real Mississippian chief would be.

Now in DeSoto's day it is probable that the Chieftainness of Cofitachequi was a paramount chief. They don't call her that, that's the way they were treating her niece, because in fact the Chieftainness absconded, ran and hid herself, and sent her niece out to deal with DeSoto. So as they come up to the Wateree River this girl was carried out upon a litter. They then parked her derriere in the back of a big canoe that's got an awning over the back of the thing and all the behavior suggests that this again is a paramount chief. When Pardo returned to Cofitachequi,
however, 26 years later, there was no paramount chief of Cofitachequi, there was not even a Mico. In other words, the chiefdom had declined so far that there was only "Conosarata," or what they called Conosarata, the chief of Cofitachequi. Okay, still even though Cofitachequi was no longer paramount chiefdom in 1566, 68, it was still convenient for Pardo to meet many Indians there, because all trails lead to Mulberry. You look at a map of Camden and notice the spokes of the wheel of all of these trails in upper South Carolina leading right into that area. Also the memory of the paramount chieftaincy was still very much alive, because one of the DeSoto documents tells about Pardo himself being carried on a litter into the towns. The Indians would come out 5 leagues or so, pick him up, put him on a litter, and carry him into the town. So they're treating Pardo as if he's a paramount chief, so they still are quite familiar with the idea. 

In addition to Coosa and Cofitachequi there was yet a third paramount chiefdom in the eastern part of the sixteenth century southeastern United States and that was the chief of Ocute. I will presently argue that the evidence for Ocute being a paramount chieftaincy is more problematic, but a strong case can nonetheless be made. 

The main towns of Cofitachequi lay on the eastern side of the Wateree River. The central town was probably the Mulberry site, which is located at the mouth of Pine Tree Creek near Camden. This may have been the town that is called Talimeco in the DeSoto documents. When Pardo visited there and traveled up river, the towns--there are several towns that he mentioned that I'm quite sure were directly under the control of Cofitachequi. These were Tagaya, going right up the Catawba, right up the Wateree River, Tagaya the Lesser, Gueca, and Aracuchi. All of these are Muskogean languages. Robert Rankin and Karen Booker have identified all these definitely as eastern Muskogean, well certainly Muskogean and some of them are definitely eastern Muskogean languages. North of Aracuchi at about the South Carolina, North Carolina state line you cross into another language family, Siouan. Otari is the first of these Siouan towns. That would have been somewhere in the neighborhood of Charlotte, North Carolina. Going further north up above around Hardins, North Carolina on the south fork of the Catawba River, Yssa. Catapa was also in the vicinity. So all of these are good solid definite Siouan identities. 

In DeSoto's day it is quite likely that the span of the power of Cofitachequi extended all the way north to Joara, which was at Marion on the upper Catawba River. One indication of this is that when DeSoto took the niece of the Chieftainess hostage and took her north with him she stayed with him all the way up to about Asheville, North Carolina, and then she absconded and escaped and returned home. And also all the way up, they say the Indians gave obeisance to her. In other words, they gave her the kind of deference you would expect a paramount chief to be getting. So the span of power then in DeSoto's day very likely extended right on up to the mountains, right on up to Swannanoa Gap. The span of power in DeSoto's day also extended to the east to the Pee Dee River. There was another town called Ilapi in the DeSoto chronicles. Pardo visited the same town. It's spelled Ilasi, but I think it's a mistranscription. I think Pardo went right to the same town. We think it was in the neighborhood of Cheraw. It, again, is an eastern Muskogean word. It's probably in fact the ancestor of Hilabi or any of the Creek towns that had that sort of name. So here is an eastern Muskogean town, right over on the Pee Dee River. 

Down the Wateree River the span of Cofitachequi certainly extended to Guiomai, which was at the junction of the Coosa, or at the junction of the Wateree-Congaree Rivers, and I think it likely that it went right on down to the coast. So, in other words, I'm talking about a span of power Cofitachequi here extending right up here to the mountains, right on over here to Ilapi on the
Pee Dee and then very likely right down to the mouths of these rivers, to the Pee Dee-Santee Rivers. Many chiefs met with Pardo in Cofitachequi, but it's impossible to say where they came from. We know that they came from the area, but there's no way of spotting them up and down that Coastal Plain. Whether the Coastal Plain between Guiomae, which was right here at this junction, and Santa Elena was under the control of Cofitachequi, there's no way to say. I can say however, that the language was Muskogean. The translator that Pardo was using learned his language at Orista, which was north of Beaufort on the mainland here, and he was able to speak all the way up through this territory. So it's Muskogean all the way up. Another impression is that these towns were definitely less impressive to the Spaniards than the ones above the Fall Line. In other words, it's when they get to Guiomai that they begin to talk about great quantities of corn, and the Indians were much more impressive to them. But again, the political affiliation of these Coastal Plain's towns, I don't think you can really say one way or another.

Now the same question might be asked of Guatari Mico, who was situated up here near Salisbury, North Carolina, who had 39 casiques under her. So she was a Mico with 39 Oratas under her. But I don't think there's any way to say--there's no indication at all that DeSoto ever heard about her. There is no indication in the Pardo documents that she had ever been affiliated with Cofitachequi, and she may have been independent the whole time. That's my guess, but again, there's no documentary proof of it. One funny thing about Guatari is that Pardo built his strongest fort there. He built five little forts as part of his dealings, and he built the strongest one there and left a resident missionary there. And that's always seemed odd to me, because in every other respect it doesn't seem to have been a very big operation, but they saw it evidently as very good land. What surprised me most about Cofitachequi is that it is a paramount chiefdom which was able to incorporate linguistic and cultural diversity. Two major language families, eastern Muskogean and Siouan, with possibly two others that Joara, Guatari, and Quinahaqui all of which were right on the upper Catawba River, may be Cherokee. The phonology is not distinct enough, not decisive enough that we can decide what they are. They may either be Cherokee or even Siouan, even Yuchi. Yuchi is a possibility.

But in any case, at least two major language families, two major cultures, archaeological cultures were incorporated in the larger paramount chiefdom of Cofitachequi. In the mountains proper the languages were Cherokee--no question about it, absolute good identifications--Cherokee languages once they get up into the high mountains. The evidence is also good for a paramount chiefdom to the southwest of Cofitachequi, namely Ocute. As DeSoto moved northward from Apalachee he encountered three polities at the Fall Line region on as many rivers. These were Toa on the Flint River, Ichisi on the Ocmulgee, and Ocute on the Oconee. Hardly anything is said about Toa, and the archaeological picture of the Flint, I gather is also insufficient. So my feeling is they probably skirted through the southern end of a Fall Line chiefdom. In other words, I feel quite sure there was quite a bit of Toa to the north of them, that they just didn't look into because DeSoto was going to Cofitachequi to get the gold and silver that he thought he would find there. They also entered evidently the southern end of Ichisi, but here they traveled right on up the western side of the river, made their crossing in canoes, and went to the main town of Ichisi, which I am arguing was in, I think Chester and Marvin as well, I hope, are still of the opinion was at the Lamar site, which some of us visited this morning. The first town they reached on the Oconee was Altamaha, on the east side of the river, I think at the Shinholser site. The chief was named Camumo. It is quite clear that this man paid tribute to Ocute.
So here is a chief who is paying tribute to another chief who he describes as being more powerful than himself. Likewise, the people of Ichisi when DeSoto asked, "who is the greatest prince around?, where is the richest land around?", they said Ocute. So, in other words, in Ichisi's eyes, Ocute was the big power in the region. Unfortunately, it is impossible to say, on the basis of the document, whether Ichisi was subject to Ocute, which is a real possibility. If Illapi is subject to Cofitachequi, if the Pee Dee chiefdom is subject to somebody on the Wateree, then it seems to be equally reasonable that an Ocmulgee chief could have been subject to the big operation over on the Oconee River. Main town of Ocute, I still feel was at the Shoulderbone site. Okay. Now, whatever the precise...there were two other chiefs that he ran into in Ocute, wherever these people were located, whatever the precise location of the main towns of these other chiefs, Cofoqui and Patofa, it is quite clear that Ocute was on the Oconee drainage. And I think also it's clear enough that it was another paramount chief. It is also obvious, abundantly clear, that Ocute was engaged in a particularly bitter war with Cofitachequi with the vast wilderness of Ocute lying between them, and with perhaps the Savannah River as a kind of boundary between them. With the evidence at hand, it would seem that the aerial extent of Cofitachequi was greater than that of Ocute. And I think if these two chiefdoms were truly in a dug-in and prolonged war with each other. It would argue that Ocute was bigger than just Ocute. Do you understand what I'm saying?

In other words, there might be plausibility in inferring that perhaps Ichisi was a part of the same arrangement. In other words, just balance of power would lead you to think that, just if these two chiefdoms are squared-off and dug-in and got this terrific buffer zone between them, it would make sense that they were of comparable strength it seems to me. In which case, I think I would argue that Ichisi may have been subject and, who knows, perhaps even Toa.

Beyond this I don't know what can be said about what archaeological research might show about the extent of the power of Ocute. The problem with archaeological evidence is that cultural similarity need not mean membership in the same polity. I gather, for example, that the archaeological cultures of Ocute and Cofitachequi are not that dissimilar. If you just examined the archaeological picture from the Wateree Valley and from Ocute, would you have any reason to say that these people were not members of the same polity? The question I put to you. It is also the case that dissimilar archaeological cultures can be members of the same polity. This is clearly the case of Cofitachequi. You have Wateree culture on the lower river, you have Catawba on the upper river, possibly even Cherokee and it's a member of the same big paramount chiefdom. It is also clear in the case of Coosa, where you have Dallas phase on the northern end of the thing, Barnett phase on the southern end of the thing.

At this point I can say that, like Julius Caesar's Gaul, South Appalachian Mississippian was divided in three parts, three paramount chiefdoms, Ocute, Cofitachequi, and Coosa. Ocute and Cofitachequi, as I said, were at war with each other in a big way. I would love to know what the cause of this was, maybe somebody said something about somebody else's mother. [LAUGHTER] Certainly something very bitter happened and they were not about to forget it, since the people of Ocute talked freely about their war with Cofitachequi. But they told DeSoto where Coosa was and said nothing about warfare. I think we might conclude that Ocute and Coosa were not at war. Now there may have been enmity, but it would seem to me a lesser enmity than between themselves and Cofitachequi. And that's perhaps all one can say on the basis of the documents. Not all of the people in the Southeast, eastern part of the Southeast were incorporated
into paramount chiefdoms. This is pretty clearly the case with the Cherokees in the Blue Ridge Mountains. There doesn't seem to have been any paramount chief up there. DeSoto didn't meet a Mico, in fact. I mean, Pardo didn't meet a Mico when he was dealing with the Cherokees, just Orata, just "head man." I think the same case might be made for the Timucuans in northern Florida, which do not appear to me, just reading the DeSoto documents, to have been organized into a paramount chieftaincy. Moreover, in the 1580s the Timucuans of northern Florida were engaged in a remarkable Hobsian war of all against all.

If you read the French documents, in particular, everybody was fighting everybody else, and they were about a day or two apart. So again, this picture of hostility, it seems to me, is qualitatively different from what people encountered from Apalachee northward. Now again, there was disturbance. DeSoto had been through there, and it could be that he de-stabilized these guys in northern Florida and that led to the level of hostility. But it seems to have been just, again, just impressionistically, a much higher level of sort of tooth-to-toenail warfare in northern Florida. Why the Timucuans in northern Florida and the Cherokees were not paramount chieftaincies perhaps could be explained in terms of ecological factors. Perhaps these areas were marginal, with respect to Mississippian production. I don't exactly know what the cause would be, but it seems to me it was something...if I'm correct in this perception, it might be possible to garner some kind of evidence for it. What about Apalachee? Is Apalachee a paramount chiefdom?

**SHAPIRO - Yes.**
**HUDSON - It is? Okay. Well, it's a little more complicated than Gaul then isn't it? It's got four parts at least.**
**SHAPIRO - I think that northern Timucua are too, especially Utina.**
**SCARRY - I'm not sure you can stretch Apalachee to the size of...**
**HUDSON - Yes, well, what about these lower Chattahoochee, upper Apalachicola? That would. Is your feeling that they would have been subject to Apalachee...see this...I'm asking an archaeological question on the basis...**
**SCARRY - Well, it's very strange. If you're looking at the size of the major centers, and you just draw a line between the classes and the centers you can divide all the Fort Walton from the Fall Line to the sea into two at about the Alabama-Florida border so it's going off that way, which would give Apalachee the Apalachicola River, part of the lower Chattahoochee, and everything north of that to whatever, but that's, you know, I'm looking at a time period much earlier than DeSoto there, too.**
**SHAPIRO - I haven't done the fieldwork, maybe Calvin has. Doesn't there seem to be a late Mississippian buffer zone or absence of occupation to the west of Apalachee? There's a real drop off.**
**JONES - Yes, well, there's one county between the Apalachicola Valley and the Tallahassee Red Hills.**
**SHAPIRO - How far?**
**SCARRY - 50 miles.**
**SHAPIRO - a 50 mile absence?**
**HUDSON - Yes, that's pretty good, that's pretty good.**
**SCARRY - And there's very little, well, at the time period when you get complicated stamping, the occupation in the Apalachicola Valley appears to be much less than it used to be.**
JONES - Right, in other words, by that time it's very likely that the Apalachee power controlled the valley. Do you agree with that John? Controlled the Apalachicola River Valley.

HUDSON - About when?

SCARRY - about DeSoto time period.

HUDSON - Oh, okay, really?

SCARRY - You know, when missions were established there were different people, and they were not controlled by the Apalachee on the lower Chattahoochee.

HUDSON - Okay, I've got just a little--I don't want to take up too much time, here. One problem in constructing a complete social geography of the Southeast is that the Spanish explorers didn't go everywhere. None of them reached the Chattahoochee River. None of them reached the headwaters of the Savannah River, which is especially unfortunate, because here is where Muskogean and Cherokee would have been in closest proximity. Both DeSoto and Luna's men crossed the lower Tallapoosa River, but I'm not aware that either of them went up the Tallapoosa, so Shine II phase may have been one that they skirted, but did not visit. And there is no indication whatever of the political affiliation of Shine II. So I don't know whether Shine II was affiliated to the north with Kymulga or Avery. I should think it was not affiliated with Tuscaloosa, where the big barrier was. In other words, once they crossed that river and turned to the west they entered another domain. They entered another world. It is even possible, I think, that Shine II might have had eastern affiliations, but I don't think there's anything in the documents of the slightest that gives us any insight into it. So if there's any solution to it, it's going to have to be archaeological. Okay, that's all.

SHAPIRO - We have time for a couple of questions.

SCARRY - Gary, one thing you might want to point out about Apalachee and the barrier--there may be other reasons than buffer zones for an absence ...

SHAPIRO - Right.

SCARRY - ...the sites in central Gadsden County.

SHAPIRO - It may be environmental too.

JONES - It doesn't appear to be environmental.

SHAPIRO - There's one general point that I would like to bring up for us to think about as we go along is that--I don't think any of us have developed criteria on which to decide when a region has become integrated, that is when several villages have become part of a single polity or are they independent and so on. And a few criteria have been used, and I'm not sure how anybody feels about how confident they are. And the one criteria was the equidistant spacing of mound sites as possible evidence that sites were part of a single polity, but they could be equally spaced also by some kind of distancing mechanism if they're independent. And Mark and I have speculated that expansion into rural areas and living in a lot of farmsteads in between mound sites might be good evidence for regional integration being security of the region. You don't have to live in a defended town, as another possible one. But there are probably a host of others we should consider, and we have several papers dealing with fluctuations like that today, but the artifacts--we explicitly have no way to gauge the closeness or distance in a measurable way.

HUDSON - Would there be any reliable archaeological means of judging the extent or span of a paramount chiefdom?

ANDERSON - Well, one thing, greater within as opposed to between-groups stylistic variability in ceramic complexes might be one way to do that. That's been extensively studied in the
Southwest, for example. That's something to at least consider. We haven't done a lot of micro-stylistic analysis.

**WILLIAMS** - But the problem there is that would have to assume that the paramount chiefs range would stay constant for a long time, and I think most of our evidence ethnohistorically and around the world would be that it's going to change rapidly in many cases, and I'm a little afraid that I don't think we're going to find anything archaeologically to ever equate with paramount chiefdoms.

**STEVE KOWALEWSKI** - I want to hear what Dick Polhemus has to say about that one in the discussion.

**SCARRY** - David you're also assuming that there's a fair amount of boundary closure.

**ANDERSON** - Sure, well, it's just a suggestion. I'm not strongly defending it.

**HALLY** - The few areas where we have any sort of phase continuity, where we...your have Lamar Incised motifs seem to show quite a bit of continuity through time, so that if there's any fluctuation in political boundaries they're not very affected by...showing up in, at least, the Lamar Incised motifs.

**KOWALEWSKI** - Yes, it would seem to me that if what you're talking about here is the essence of these relationships that you're talking about...political relationships between these Oratas and Micos and Paramounts. Is Orata...is that a native term?

**HUDSON** - Yes. It's like Orata. It occurs in Timucuan, too.

**KOWALEWSKI** - Then you have to be looking for archaeological things that reflect those political relations, and the only thing I can think of right off is the architecture. Specific architectural features of the tops of these mounds and...

**SHAPIRO** - Public architecture.

**KOWALEWSKI** - ...other possible public buildings in the mounds.

**HUDSON** - May even be gorgets though, the Coosa...the Citico gorgets in Coosa would seem to be a marker of some sort.

**HALLY** - Yes, that could be symbolic artifacts.

**HUDSON** - One other...

**SHAPIRO** - Mounds are symbolic artifacts.

**HUDSON** - ...One other little wrinkle in this is what happened with the Luna expedition when Coosa was collecting tribute. It doesn't seem to be retribution. It was coerced. And I don't know how that subtly would show up in archaeological evidence.

**ANDERSON** - Well, from Steve's work in Oaxaca, one of the things that people have looked at is differences in the number of exotic artifacts on the floors of houses and how that changes over time. And it's been suggested that when a polity is in trouble, the redistribution mechanisms start to fall apart, and you see a fall-off in exotic items. I think if we looked at, if we could get the fine-grain chronological control and looked at the perhaps material indicators of tribute to see whether there's a lot of tribute coming in or lesser amounts, if we can see fluctuations in that perhaps, we can be looking at the rise and decline of centers.

**HUDSON** - You could do that where you have great chronological depth, but these are newly arrived chiefdoms. I mean these are amateurs. I mean I've seen these southeastern chiefdoms that are newly arrived amateurs that are just sort of really flinging themselves around, and so in other words you might in such nascent condition, you might not find...the same kind of fine-grained analysis might not be possible.
HALLY - I would suggest that the formation of buffer zones would indicate consolidation on either side. I think in Savannah times you've got a pretty even distribution of mound sites along the Savannah and the Oconee and so on like that and even on the Oconee itself at Scull Shoals and Shinholser and then post-Savannah times the Savannah River is abandoned, and that in a way suggests that perhaps there was power developing on the other side. Where on the Oconee, where in Savannah times you have Shinholser, Scull Shoals far apart with presumably a Savannah occupation, and Dyar in the middle of nothing - empty - suggests that perhaps it was a no-man's land then.

WILLIAMS - But the Savannah's not going to be as simple as we thought as Jim Rudolph's going to tell us. I'm not convinced that the creation of that as a buffer zone because of the building up of the other powers is the way to look at it. It may be that ecological things might be important. I presume he's going to discuss that.

HALLY - I think these fluctuations can be of some use though.

SHAPIRO - I hate to cut a good thing short. We're going to have to move on to the next paper and hopefully come back to discussions about political organization.

END TAPE 5, SIDE 2
BEGIN TAPE 6, SIDE 1

SMITH - ...the stuff was really drastically different than the Oconee stuff?
SHAPIRO - Really it is, you could tell Oconee pottery from Wateree pottery.
DEPRATTER - Some sherds you could mix, but there were some you could not.
SHAPIRO - If you had a box from each site, a representative box from each site...
WILLIAMS - We ought to try that. They're all numbered.
DEPRATTER - Well, in terms of...
WILLIAMS - I think your rim sherds wouldn't fit with our rim sherds.
GARROW - Could you pull that screen down a little bit?
SMITH - Steve, could you pull that screen over just a little bit.

[GENERAL LOW LEVEL CONVERSATIONS]

JIM LANGFORD - I had Marvin Smith co-author this with me so he could give me such good advice. [LAUGHTER] And also because he had a Macintosh computer which helped bring the data together. I'm Jim Langford, and I'm a non-professional in the field, and I have been working on some of these sites for perhaps 10 or 12 years, I guess, off and on, and finally have had an opportunity to put some of the data together, and we'll take a look at it. This is from the core of the Coosa Province. What we'll be looking at are five sites that we think make up a portion of the core of the Coosa Province. In other words, when DeSoto and DeLuna came through they mentioned that there were--at least DeLuna mentioned that there were eight towns of Coosa--eight villages that made up the capital of the Coosa Province. We have since found out or believe that the central village was at Little Egypt there at reregulation reservoir, below Carter's Dam. The other villages, at least we think we've been able to five of the others, so that we think we may have identified six of the eight villages that made up the core of the Coosa Province. The province itself, the capital of Little Egypt, the capital of the Coosa Province was here in the middle of the lake here. This is looking at the Cohutta Range of mountains there. The Coosawattee River comes down out of the mountains and dumps into the alluvial plain right at that fault line, right
where the dam is there in the middle. Is there any way we can get another one of these lights out back here? There, thanks.

So essentially the main village of Little Egypt was right in the middle of where the water is there. This pointer doesn't work very well. It's about right there, I guess. This is looking down the valley, down the Coosawattee, which ran right into the powerhouse there, and that was about where the central part of the site of Little Egypt was. The Coosawattee then runs down essentially this way on down the flood plain on across to the junction with the Conasauga River to make the Oostanaula River, and this is all part of course, part of the Coosa River drainage. Going back to the map, what we're going to do is talk about the Brown Farm first, which is fartherest away from the central village at Little Egypt, and then work our way back up river. What we'll be able to see is that all of these sites are...what we're going to be talking about is the Barnett phase on these sites. Only two of the sites are really multi-component. The other three are single-component Barnett phase sites.

The first being Brown Farm which is also the largest of the sites that we're studying. This is essentially the site here. It's not in very good focus, but the site extends more or less in this area here. I don't know if you can see that pointer. I can't. I'm going to have to get over there closer to the screen, I think. The site is in this area, in this corner of the field here. A lot of pot-hunter activity has been going on in here. Most of the burials--mass burials and multiple burials were along the river almost right up against the tree line here. The houses in the house pattern occupation patterned here were more or less perpendicular to the river in rows. There are burials between the houses, not in the house floors. We don't think that the site was palisaded. These may look like palisade-type lines or a ditch here, but they're not. These are erosional cuts.

We've had some of evidence of house floors actually in the bottom of these erosional cuts, and pieces of the site or house floors that actually came on outside of these erosional cuts here, so we don't think this is palisaded here. We've seen no evidence of palisading on any of these sites, which is kind of interesting. The burials...95 percent of the site has been destroyed either by erosion, plow erosion, water erosion. This river, the Coosawattee, flooded very, very badly prior to the construction of the dam at Carter's dam in about 1975, so there was a lot of water erosion damage in here and damage by the pot-hunters in the past ten or twelve has really been extensive there. Some of the iron artifacts, European artifacts, come out of the Brown Farm. This is one of what we think is a horseshoe, a piece of Spanish horseshoe. Could be an oxen shoe. A horseshoe would have been one piece all the way around. This is hammered a little bit on this end so we can't tell if there originally was one piece or not, but whatever, there certainly was a burial. That was an Indian burial at that time. A couple of other iron artifacts from the Brown Farm included iron spikes, which was also a common European artifact for these sites and also a piece of what we think is a chain link. Moving up river about 3.2 miles to the Baxter site, and that's 3.2 miles in a direct line from here to here. This is kind of rolling hills. Of course the floodplain follows the river.

The Baxter site has been as you can see heavily potted this year. It's kind of interesting. It's a multi-component site. This was the mound in this area, probably more Hiwassee Island, Etowah-type time periods. The site itself extends more or less from this creek here. This is the Coosawattee River down here--extends something like this. It's fairly large site. The Barnett phase part of the site, the component, is somewhere in this area, we think. What we have seen is fairly limited evidence of the Barnett phase. We've seen a couple of house floors and, again we're
looking at pot-hunter back dirt in here. You can see a lot of the ceramics that are coming out. And we've seen a couple of houses down in this area that are definitely Barnett phase. One burial that was more or less on this side of the mound had an iron artifact with it that we've yet to been able to relocate. The pot-hunter has misplaced it, but it was in a burial with two stone flint blades that were about 6 or 8 inches in length. This is interesting. This road is strictly a road that was made by pot-hunters this year. That's how much activity has been going on there, and really quite extensive damage in there, and this is just in one field season of the damage that they've done. The mound at one time was probably 25 or 30 feet high. We don't really, except from what people have told us from the 1940s. It was bulldozed in the 1950s by the land owner so that he could plow the site more easily. And we're not really sure if the upper levels of mounds were used, were constructed during the Barnett phase. It's possible that they were, but we...there would be no way for us to determine that. Again, what we may end up with--we've not seen a lot of burials that we can identify as Barnett phase in here. We haven't seen a lot of Barnett phase type artifacts, like rattlesnake gorgets and spatulate celts. I suspect that we're going to end up with more Barnett phase houses down in this area along the river where we've seen them on the other Barnett phase sites. We don't know. There's a lot of alluvium in here and it could be the pot-hunters haven't reached it yet.

Moving on to the Thompson site. This is a funny little island in the river here, and this site is right up against the river. It's also multi-component, but mostly later components. Little Egypt phase-type material and Barnett phase material predominate there and we, it looks like we have a small mound that was there. This is the island here. The site itself extends more or less in this area here, with the mound roughly in this area right here. About 100 to 200 burials have been taken out of this area over the past 20 years, some in 1950 by a local collector. A lot of the material from this site looks very much like what was going on at Little Egypt--Little Egypt phase, Barnett phase. It looks a lot like Mouse Creek type material as well--a lot of effigy vessels, a lot of Dallas bottle-type material, some rattlesnake gorgets, a couple of iron artifacts. One was an iron awl hafted into an antler handle, the other was an iron belt buckle of some kind.

Moving on to Poarch Farm. This about 2 and 1/2 miles from the Thompson site to the Poarch Farm. The Poarch Farm is in a big alluvial valley. It's quite extensive. This is looking south. The Coosawattee here. The site is very, very long. It extends from about here way on up to here, and it's about 100 meters at its widest point in width, quite a long, narrow site. This is where most of the iron artifacts have come from, and other European artifacts, that we've seen from the Coosawattee River. There is an earlier component very much separated, so that we can identify all the ceramics from this component are very much separated from the earlier component up in this area. The earlier component is Wilbanks-type material. This part of the site, in fact, the entire site is, is pretty well protected by alluvium, anywhere from 1 to 2 meters of alluvium, which is quite nice in a way. It makes it kind of difficult for pot-hunters to get down that far. We've gotten a lot a help from the land owner now to keep those people out of there. And you'll notice that all the sites, except the Baxter site are clean as far as pot-hunter activity goes. We've been able to get pot-hunters out of all of these sites except for the Baxter site. Some of--another view of the site looking and you see the Coosawattee bending, and it goes on around here and then runs due south this way towards the Thompson site which is farther down river. Just a nice way of viewing this alluvial valley in here. Some of the iron artifacts, these iron wedges, very typical of some of the iron artifacts we've seen on the Coosawattee, these iron spikes also. This we think
is part of the handle piece off of a sword with the tang that would fit right down in that little hole right there. These are some of the beads from one particular burial. These were all from one burial. These are all clay beads here, and they're kind of funny in their shape, and these are very tiny holes there's no way you can even get a thread or needle through these holes, very tiny. It's kind of interesting. These are little metal brass or copper rings of some kind.

This is a Nuevo Cadiz bead. These two, I think, are of a particular variety that's more common. This one's a little more rare. And this one's a funny little blown glass bead also very rare, but these were all in one burial. A piece of a sword. Since this slide was taken this...a pot-hunter had this and had put some lacquer on it. We've since done a lot of lab work on it, it looks very nice. It looks a little nicer than that now. We've got a lot of the rust off. It's got a nice groove down the middle. Two pretty good edges on it. Nothing else particularly impressive about it. Tang here, of course, on the sword piece. Another interesting item. This is the tip off of a crossbow bolt. It made of brass. It's hammered. In reality it looks a lot better than this photograph. The photograph really doesn't do it justice. It's really in very good shape. The interior here is hollow. It's even got crimping inside it here right on the edges where it was crimped down. The tip is very solid and pyramid type shaped. It's really a very good specimen. We haven't seen any evidence of any others from the Southeast that are made of brass. They're usually made of iron. We don't know if this one was made on the trail out of some sort of sheet brass. We're not quite sure about that.

SHAPIRO - That didn't happen to be in a burial did it?
LANGFORD - Yes it did, with four iron awls and 120 Dallas-type points in the same burial. It's kind of an interesting burial. A Clarkesdale bell. This particular one was from Little Egypt, found by a pot-hunter. We found one at Poarch Farm in another burial identical to it in every respect. Brass, flush-loop Clarkesdale bell. Very typical of the mid-sixteenth century Spanish bells.

Moving on to the Swancy site. Poarch Farm was the most impressive of the sites in terms of European artifacts and size. The Swancy site is relatively small. We haven't seen any iron artifacts from the site or any other European artifacts. The ceramics fit very well with the other Barnett phase material. Nothing that you can see here about the Swancy site except the Coosawattee River here, a big portion of the site here. It extends through these trees. This is a good 30 meter wide strip of trees right down the middle of the site which is kind of nice because that means keeping a lot of the site protected. The pot-hunters haven't done any work in there in the trees. They've done some work in the field, but the landowners has since in the past 5 or 6 years have not let any more people in there to do any digging. So there may be some very good material yet to come out of this site. We'll see.

To talk for a minute about distances between these sites. It's interesting how these sites get closer together as you get closer to Little Egypt. Now there's one little gap in here. We may still end up with a Barnett phase site in this area here. We're still looking for it. We've seen a few sherds here and there and we still think we may end up with a site somewhere in here, which would make a really nice way of looking at. It would fit perfectly with the suggestion that these sites get closer together the closer you get to the real capital village of Little Egypt. The other interesting thing is that these sites here that are multi-component have a--this site for example has a Wilbanks component here--these that are multi-component in here, there are no sites in between here from earlier components or Barnett phase components, and so there seems to be some sort of optimum
spacing at least for this river valley between those three sites. It's about 2 and 1/2 - 3 miles, which is kind of nice. Let's see what else there was about distance between the sites of importance. I think that's about it. Let me backup. The ceramic data from these sites...let me pass this out.

SHAPIRO - Jim, you've got another five or ten minutes.

LANGFORD - Okay. The ceramic data from the sites is really very interesting in that when we look at the...wait until everybody gets a copy of it, and I don't know if you can see it in the dark. In fact, we might turn on a light now. The ceramics are very revealing, especially for the Brown Farm, the Poarch Farm, and the Swancy Farm. That's these three sites here, this site, this site, and this site. These are single component Barnett phase sites, and when you look at those three in their percentages of Lamar Plain and coarse plain, and, for example, Lamar Complicated Stamped and their percentage of Dallas Plain, it's very interesting how similar these sites are. The other interesting factor involves the folded rim widths. In other words the widths of these folded rims are very, very similar, and when you look at the ceramics of these three sites, you can't tell any of the ceramics apart as far as from one site to the other. It all looks like about the same site, very similar. We compared this then with of course the Barnett phase at 9Mu102, the Little Egypt site, also very similar. Now the Poarch Farm, I mean the Thompson Farm and the Baxter site...something else interesting going on, of course, the Baxter site shows and that is that earlier component Hiwassee Island, Etowah-type material...the fascinating thing of course is that 75 percent of the material there is shell-tempered. This is only 30 miles north of Etowah, and I don't know what the exact break down is at Etowah, but I know that it's not 75 percent of the material shell-tempered, so it's a fascinating thing that, of course, Etowah being on the lower end of the frontier there, this really is more associated with some things going on in Tennessee farther to the north. When you move then forward in time, which I think the Thompson site is a good example, you see how Dallas Plain is beginning to diminish.

Now the shell-tempered wares are beginning to shrink and your beginning to get that real increase in the grit-tempered wares of Lamar. You look at 9Mu102 and the combination of Little Egypt and the Barnett phases together, you see the same kind of...your beginning to see that diminish of the shell-tempered wares. You move to Barnett phase at 9Mu102 and the shift is even more dramatic, and that's what we're beginning to get all up and down the this valley. Very, very similar to what's going on there. So when we look at several things going on. The ceramic data, the fact that there are no palisades really at any of these sites, not even at the Baxter site, which is earlier, not much earlier, or the Thompson site, which is much earlier. It seems that this is really the core of a province. It may have been the core of a province for a long time, because there are no palisades. Maybe that suggests that they felt so secure being in this core of the province that they weren't really threatened from anywhere outside and that, maybe that will break down. Maybe we'll start seeing some palisaded things along the river, but so far we haven't seen any earthworks that suggest a big ditch, and we haven't seen any real evidence of rows of postholes that look like palisades, so that's kind of interesting. Again, the ceramic data looks almost identical for all the Barnett phase sites. The appearance of the European artifacts along all of these sites, we know that DeSoto was at Little Egypt or certainly in this area for more than a month, probably visited all of these sites, because it was a days ride or less from here all the way down to the Brown Farm and back. Probably very easy for him to or his men to visit all these sites during their stay. DeLuna probably followed this river route in coming north. DeSoto was coming this way and
then went from Little Egypt then straight on down to Etowah as has been suggested by Doctor Hudson.

DeLuna it's been suggested came up the river, up the Coosawattee this way. So that some of these iron artifacts may be associated with DeLuna. They look like farm-type implements, or they look like these drills, these awl-type things. They're not necessarily military-type items. They may be a part of the DeLuna expedition. But either way it was very...DeLuna's men stayed for a longer period of time and really had more time for them to interact with all of these villages up and down this core province. So we think we're seeing something fairly significant here as far as a core and interaction sphere, interactive core, but they may have interacted day to day between the sites, certainly probably inter-marriages and lots of other things between the people in this valley. The burials that we've seen, the multiple and mass burials at every one of these sites, heavy concentration of burials. Some of the pits, collectors tell us are as many as 6, 7, 8 individuals in pits at Poarch farm here, as many as 4 or 5 in burials, Brown Farm. Same is true for the Thompson place, and heavy, heavy concentrations in areas on site. We do not see any material from post say 1600 until the Cherokees arrived in 1700, so, you know, we're looking at an abandonment of that river valley after 1600, too. Okay questions?

SHAPIRO - I have a question for you. In the absence of mounds at Little Egypt would you have any other reason to suspect that it was the head town?

LANGFORD - Well, we think it was larger, although we never really got good data on exactly how big it was. It looks like it may have been as big as what? 60, 70,000 square meters?

HALLY - I never thought of it in terms of square meters.

LANGFORD - In terms of square feet I think it was 500,000.

HALLY - I don't think it's as big, any bigger than Poarch.

LANGFORD - Yes.

WILLIAMS - Have you carefully examined aerial photos going back as far back as you've got them, to make sure you can't see any palisades at any of these sites?

LANGFORD - I've looked at them back to 1938 and...

WILLIAMS - Every single set that you could find.

LANGFORD - ...every single set that I could find...

WILLIAMS - Okay.

LANGFORD - ...and I haven't seen any others.

HALLY - Jim?

LANGFORD - Yes, Dave.

HALLY - Jim, maybe you pointed it out and I missed it, but it's interesting that Little Egypt, the only site with mounds and presumably therefore the most important, is on the eastern end of that site distribution. It's not in the center or anything like that and you have to go I don't know 10, 15 miles, maybe more, the Coosawattee east of there is a very narrow gorge with no Mississippian-like habitats at all until you get to Elijay where it does open out and there are some Lamar sites in the Elijay area, but you know it's 10 to 15 miles away, so this really seems to be, you know right on the eastern edge of...

SHAPIRO - How about on the western edge of the province? Is there a similar boundary?

HALLY - Yes, what about going towards Calhoun? Tell them.

LANGFORD - Well, the western edge of the core or the western edge of the province?

SHAPIRO - Well, I don't know, maybe the boundaries moved.
WILLIAMS - Did you just not finish surveying downstream is the question?
LANGFORD - Well, we get into sites on down the Coosa River, which we think fit with what DeSoto described as Ulibahali and...
SMITH - There's a big break from the Brown Farm on down.
HALLY - Yes.
SHAPIRO - I guess we're...
HALLY - From Calhoun to Rome, right?
LANGFORD - Yes, yes. There is a big break.
SHAPIRO - What I was thinking about is an article that Warren Debour had written on the boundaries of Amazonian chiefdoms, and how they found that in many cases the main, the largest towns, were on either end of this linear distribution, this linear province, and it had to do with competition between polities and maintaining the buffer zones and having a force of people on those borders to help control either access to the province, or maybe they could remain there through trade with other provinces, at any rate...
LANGFORD - Well, there is something interesting about that. The Brown Farm is the biggest of the sites in this thing, except well, of course, Little Egypt is quite large, but the Brown Farm is really the biggest of all of these other sites. It's kind of, if you say that, that does kind of fit. It's quite large.
SMITH - But also you've got Sixtoe and Pott's Track right by Little Egypt that are also contemporary. It may be potentially, we've got all eight of the towns that DeLuna talks about. We're not really sure Pott's Track and Sixtoe are town size at that period or not.
HATCH - And what about Bell Field? I mean, the impression I get is that Little Egypt and Bell Field there form a center of gravity for quite some time.
LANGFORD - Well, not only that, in the DeSoto accounts, or DeLuna accounts, they mentioned that the town was on both sides of the river or that the town was where two small rivers united, came together, which fits for that.
NANCE - Remember too, that site's on an ecotone, so that could explain it's larger size, you know regardless of political organization.
LANGFORD - Exactly. Exactly. And this is quite a dramatic shift. I mean this line, this range here, of mountains is quite a dramatic shift from this huge...your right, there's two ecotone's there...big mountains and then this alluvial plain. It just drops right out.
HATCH - And of course, I don't doubt that all of you already know this, but it's worth while pointing out that ecotonal effect continues right up into the Dallas area, that every decent stream that you cross as you follow that ecotone all the way up to Sevierville at least has a major Mississippian site on it. Every one of them.
SMITH - Dave made a comment a while ago that Little Egypt was the only site with a mound, but both Thompson and Baxter have mounds, too.
HALLY - Baxter's probably not...
SMITH - I think Thompson's pretty...
HALLY - Baxter's probably not a Lamar mound, though.
SMITH - Yes, Baxter probably isn't, but Thompson probably is. Both could be.
HALLY - That whole area under water, in your first couple of slides, probably had people living in it in Barnett times, because there's Pott's Track a mile from Little Egypt; Kelly got Barnett and

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Little Egypt phase stuff over in the Sixtoe Field. There's probably, at least homesteads throughout that approximately mile-square little valley up there.

WOOD - Yes, that was going to be one of my questions. We're looking at some pretty large towns. What about much smaller settlements? Now, what kind of survey data do you have from here?

LANGFORD - We've seen a couple of things that we're calling, for now, hamlets or farmsteads.

WOOD - A few?

LANGFORD - One or two.

WOOD - Are you just looking strictly at the river corridor, or how far away from the river are you going?

LANGFORD - For now we've only looked at the river corridor.

WOOD - Is most of your information coming from the pot hunters and collectors, or is this...?

LANGFORD - From my own work up there the past 10 or 12 years and from pot hunters, collectors. We've got one little hamlet kind of thing in this little valley, here. This is the Sallicoa valley river here, it runs actually way on down. And there are a lot sites on the Sallicoa here that are even earlier. There are a lot of stone box burials and a lot of other Dallas type traits, but we haven't seen any Barnett phase materials, okay, from it. We may run into some others. We may run into some upland sites. We just haven't seen it yet.

WOOD - My final question involves the relationship you had or the problems or successes you've had with these pothunters. You indicate that you've been able to keep them off of some of the sites and obviously maybe not off the Baxter site, the one that was devastated, that looked like it had been bombed. Are you having success? I mean obviously you're looking at some of their artifacts. Are you working with them? Are you working...

LANGFORD - It's running...it's a real tight rope, because you know, on one hand they are being very helpful to me. They've lent me these artifacts. They've let me photograph them. I've given them credit for that in written documents as well as some other things. On the other hand I'm working very hard with the land owners to keep them off of the site, and it's a real tough tight rope to walk. In effect Baxter site has ended up being almost like one that I've had to kind of leave alone, you know just to give them a sand box to go and play in. [LAUGHTER] And it's...that's tough because...

HUDSON - Why don't you start salting it with some fake artifacts?

LANGFORD - Well, I've thought of that too. It's really tough. It's really tough to do that.

WILLIAMS - Something that strikes me is you've got a number of these large towns in a close area. You're looking at 10 miles as the crow flies from one end to the other, and that sounds to me a lot more similar to what I understand Chester and Chris have in the Wateree Valley. How far is it? You've got a number of big sites that are fairly close together.

DEPRATTER - There are eight mound sites within a 20 mile stretch, but they're not all contemporaneous.

JUDGE - They are not all occupied at the same time.

DEPRATTER - There are only three or four at the most of those probably...

WILLIAMS - Well, the point I wanted to make is that both of those are more similar to one another than what I think we have in the Oconee Valley, where we're looking at a much larger distance to try to have a comparable number of big sites. And I'm not sure what that really means.
DEPRATTER - The Moundville area is really not very big if you look at that. It's only, what, 15 miles long with all those major sites around there?
SHAPIRO - There's supposed to be eight mound village sites in Apalachee, which is a 30-mile wide territory.
DEPRATTER - Yes.
WILLIAMS - So the Oconee from that measure stands out as the anomaly.
SHAPIRO - Thank you Jim.
LANGFORD - Sure.
SHAPIRO - We need to move on and introduce John Scarry.
SCARRY - Well, looking at the Tallahassee Hills area, to bring the--at least the latter portion of the Lake Jackson phase, we have suggestions that this area was, for want of better term, a complex chiefdom say circa 1300. We have four tiers, at least, we have a suggestion of a four-tier settlement patterning, with farmsteads at the bottom end. The site in which we have one example, the Borrow Pit site, where there are a number of houses and one larger structure about maybe half again, twice the size of the houses, qualitatively and quantitatively different from the houses we find in farmsteads. We have single mound centers, mounds maybe 15 feet high or so, relatively small structures. And the Lake Jackson site with 7 mounds, the largest of which is 35 feet high. So at some time during the occupation of Lake Jackson phase we have this relatively complex system operating. At the Lake Jackson site Calvin's managed to salvage a sequence of burials from Mound 3 that contained an assortment of grave goods that suggests that the individuals buried there, if not paramount, were certainly fairly high up in the society. Looking at those burials and the grave goods that accompany them through time we see some changes. In the lower portions, lower floors, the burials were accompanied by repousse copper plates or celts and a lot of beads that suggest that they were wearing some sort of robes, costumes of some kind.

In the upper portion of the mound, the burials are accompanied by, at least Calvin suggests, quantitatively more copper. They are also, they also have the beads we see in the lower burials. The upper burials have both copper plates and copper celts. Such artifacts do not co-occur in the lower burials. Also have several fancy headdress ornaments such as those seen at Etowah. Sometime, I suggest, around the fifteenth century the Lake Jackson site, at least, is abandoned--the Velda site is one of the minor mound centers--the mound construction stops, but the site is not abandoned, and we see fairly marked shifts in vessel forms and decoration in the ceramic assemblages, so that instead of looking like Fort Walton pottery like it did before, it now looks, what would you say Marvin, Overhill Cherokee was it? [LAUGHTER] It looks, there's a marked change at any rate. I think this occurs sometime in the fifteenth century. In the sixteenth century a number of Spaniards come through the area, stay in the area, fiddle in the area, and we have accounts of their sojourn through Apalachee Province, but there's certainly enough data to suggest that there is continuity from the Lake Jackson times through historic Apalachee. When DeSoto comes through he finds the capital towards the western end of the province at Anhica or Manyaka? That's somewhere reasonably close to Lake Jackson, within a few miles probably, less than 10 miles certainly. At the time of DeSoto, there's again a multi-tiered settlement hierarchy or a suggestion of one in the description of sizes in the villages, 250 houses in the big ones and 40 houses or so in the smaller ones.
SHAPIRO - Speak up.
SCARRY - And small farmsteads being scattered amongst the fields. In 16--early, the first decade of the seventeenth century, some, we're unclear how many, but some of the Apalachee chiefs sent a request to the Spanish for missionaries. The Spaniards do not send those missionaries immediately, although they do send someone over fairly soon to check out the province. When they do send missionaries in the 1630s, they establish the first of the missions toward the eastern ends of the province. I presume, or I guess that the chiefs who requested missions were those at the eastern end of the province away from where I think the capital was a half a century before. When the Spaniards establish their capital of the province, they established it at the site of San Luis, where Gary is now working, and the initial name of the capital was San Luis de Illyaica?

SHAPIRO - Illyaica?

SCARRY - Illyaica. Which bears a certain resemblance to the capital at the time of DeSoto. At this point in time we're, I'm not sure we're still looking at a complex chiefdom, although the documents suggest that the structure of offices and positions reflects a complex chiefdom. We have casiques who are subordinate to other casiques, who are subordinate to a paramount. We have some fairly good information from the Spanish accounts of this time period, and we see in the accounts of visitations to the province when the casiques met at various places to talk with the representatives of the crown that there are a number of surnames, or what the Spanish were using as Indian surnames, that are repeated. The casiques of a number of towns all share a name. To the western end of the province there are a few Sonacas?, including the casique of San Luis. At the eastern end of the province there are the Unachugas? including the casique of Ivitachuca. We see, I think, throughout this time period, we see a massive, or a marked change in the allocation of labor, surplus labor, controlled by the elite. It's no longer being devoted to the mound construction, I don't believe, although Gary questions this. I think we see a change in the treatment of the higher nobility in death. They're certainly not being, don't appear to be buried in the mounds, at least not at the big multiple mound center.

We see a marked change in evidence of interaction with other societies. It no longer looks like it's to the west. It looks like it's more toward central Georgia. We see in historic times a change in the elite families who was the most powerful, who was accorded the most authority, at least in Spanish eyes, from the Oosanaucas? to the west to the Machoobas? to the east. By 1700 the principle, by 1675 the principle casique of the province is chooba?, the chooca?; and he does not move to San Luis. He stays at the eastern end of the province, the capital. He does not move to the capital, he stays where he is. But earlier we see a lot of continuity in the capital. I think that may suggest a continuity in, that makes the segment of the population from which the casique was being drawn. I think all these things are linked and reflect the process of gradual centralization of authority in the hands of at least a segment of the population that was fairly stable for a long period of time in the prehistoric record that is put in the very late prehistoric and early historic record. We see a number of fairly marked shifts in what's going on in Apalachee, some of which are undoubtedly connected with the European intrusion, but at least one of which I think occurs well before any Europeans entered the area. These breakdowns, the one where the mounds are abandoned prior to, I think, DeSoto or the Spaniards, and the later one the seventeenth century one, when the principle casique essentially, the paramountcy is shifted from one end of the province to the other, although the Spanish capital stayed the same, marked major changes in who
holds or has the right of access to the paramount's office, that for a long period there are, there is competition for this office to a fairly restricted group of people.

These major changes, I think mark changes not in that competition of the office, but changes in the groups which are competing, which contain the members that can compete for these offices. I think I see or I think the request for Spanish missionaries that some of the casiques, some of the chiefs make reflects a strategy that they employed in competition for that office. The external links of the earlier chiefs of Lake Jackson and, I think, they may well have monopolized the exotic items that reflect those links and serve to reinforce or demonstrate their authority. The later people to the east did not have access to those. A major shift when one line replaces another was marked by a pattern of new external links, external links that reinforce, demonstrate, or use to support claims to authority and position. The requests...I think the Spaniards were seen as yet another potential source of these external prestige links that could be used to support these claims to office. I think in one way they were probably successful. I think the people who asked for the Spaniards probably gained in authority in power. They lost a lot too, of course.

END TAPE 6, SIDE 1
BEGIN TAPE 6, SIDE 2

SCARRY - ...white marked I think, both prehistorically and historically. At one point late in the seventeenth century not only is the casique of Ivitachoco in Apalachee Quinchuga?, but the casique of the one of the Oostaga? villages, Timucuan group across the Aucilla, across the boundary, is his nephew. The links are quite dramatically shifted towards the east at this point in time.

SHAPIRO - Can I?

SCARRY - Certainly.

SHAPIRO - I think that you've brought up something with regard to Apalachee that might help us understand the condition of some other provinces at the time of Spanish initial missionization. That you have to wonder why Indians would ever invite Spaniards to come live in their territory and turn them into Christians. And the immediate answer has always been 'well, to get some European items,' and that probably is the first attraction, but after Spaniards had been in St. Augustine for 50 or so years, they must have known they were going to get something more out of the bargain too, and so the leaders are looking to the Spaniards as a way to bolster their authority; to ally themselves with the Spaniards, and since the Spaniards recognize me as the chief that makes me the chief here a little more so. That's essentially what you're saying. Well maybe we can extend that a little bit and wonder about other groups that were missionized in the Southeast and certain groups that were not missionized in the Southeast as a key to which ones were becoming somewhat unstable at the time the Spaniards were beginning the mission program. So for instance, I look at Tama. The Spaniards had a lot of interest in Tama. They sent expeditions up there. This is good land and the Indians seem kind of tame. Let's see if we can missionize the region, and yet it never happened. I look at Tama as the Apalachee that never was. And maybe it's because Tama was pretty well organized at that time, or it was a healthy, not in a state of decline anyway, and the Guale groups were rapidly missionized, perhaps they were not as centralized as some of the other provinces the Spaniards might have come in contact with, so that
might be a tool to help understand your idea of political alliance. I think that might provide some insight.

SCARRY - In other words, these Spaniards may have had a fairly decent claim to powers and abilities beyond those of mortal men at that time. DeSoto comes through or any Spaniard comes through and suddenly you know one out of every umpteedeeump Indian is dying, and the Spaniards are relatively healthy. They have something that the Indians don't. They have something that the casiques can't provide, the ability to survive.

WILLIAMS - Why can't we go ahead and extend that back to prehistoric level at least to the idea that the weaker ones would always seek the, to bolster their power by allying themselves with the stronger ones and...

SHAPIRO - That's John's explanation for the Lamar influence coming into Apalachee.

SCARRY - That's what Lamar is, I think, in there. You don't have access to the people producing those wonderful copper items. You have access to somebody else who's far away, powerful, gives you some claim to chiefly offers because of your alliance with them.

HUDSON - There are all kinds of ways to mark status. I mean it doesn't have to be...

SCARRY - Right, and when you get a major, you know...if the elite monopolize access to those goods that mark status, when you replace someone who has a monopoly, and you don't have access to it, chances are you try to come up with something different. It may well be easier to come up with something different than try to acquire those ties that they had.

HUDSON - Also, as far as missionizing Tama goes, the Pardo missions, the Pardo forts collapsed and were obliterated and all the people killed as far as we know within a year. You couldn't do it in the interior.

SHAPIRO - That's right.

HUDSON - ...it just...and then also a problem with transport, the reason...

SHAPIRO - You also had a healthy province going in that region.

HUDSON - Right, but then another problem would have been transport. That is the reason the Spaniards missionized the Indians was to get them to produce food and it was just, I mean, more of a transport problem, bringing it down river.

SHAPIRO - To produce food in Apalachee and get it to St. Augustine they had to take it by canoe down to St. Mark's and then in boat to the Suwannee, up the Suwannee River and up the Santa Fe and overland to St. Augustine, and it was a tremendous hassle. They went far afield at that time.

HUDSON - But military control was always a problem in Apalachee right? Didn't they have a series of uprisings?

SCARRY - They had a revolt in 1647.

SHAPIRO - Nothing compared to the Guale situation.

SCARRY - Apalachee is--the territory is unlike these nice long river valleys because it's two dimensional. You have a lot of people, a lot of centers. It's very compact and the centers, the subordinate centers are very close to the paramount center, you know, very close to the provincial capital, and I think it would be a lot easier to control those people who might revolt, might rebel when they're closer to you. The boundaries of Apalachee weren't all that far from the center of Apalachee. Apparently, you know, judging from our archaeological surveys in the distribution of the characteristic ceramics of Apalachee or Lake Jackson, they didn't fluctuate very much at all. I mean they were always very close. It was always between the Aucilla rivers.
SHAPIRO - Thank you John. We're going to move to some similar concerns a little bit further north with David.

ANDERSON - Okay, in this paper...and if those of you who don't have copies will get in touch with me after the meeting, I'll be glad to see that you get them. And in subsequent dissertation research I hope to look at and provide some ideas on why chiefly societies emerge and evolve on the south Atlantic slope, specifically those within the Savannah River basin. I would argue that to properly examine such social phenomena the adoption of a broad geographic and theoretical perspective is essential. The history of specific Mississippian societies, I would argue, must be examined from a regional perspective. One of the things that we're interested in here and in the study of chiefly political evolution is why do some societies appear to cycle, that is to expand, then collapse, and then reconstitute while others take off to higher levels of complexity. Why is it, for example, that some societies have stayed at the same level of complexity for hundreds or thousands of years?

We have 500 years of cycling behavior in the Southeast. And in other areas, such as New Guinea, South and Central America, and in Central Africa, we have similar sorts of phenomena, while in other areas, more complex state-level societies emerged fairly quickly. Why, furthermore, should large and complex successful chiefdom societies quickly fall apart or disappear? Now in the southeastern U.S. there's a lot of interest in this among archaeologists. Why did centers such Cahokia and Moundville, Etowah, and so on...why were they abandoned? Perhaps the most dramatic example of this is Williams' vacant quarter hypothesis, which posits that a large area of the central Mississippian alluvial valley was abandoned after about A.D. 1400. This problem is not restricted to a few large or unusual sites or areas however. If we look at the archaeological record from across the Southeast we see evidence for cycling behavior just about everywhere. In some areas towns or centers may have been occupied for up to hundreds of years, while in other areas chiefly polities appear to have lasted for no more than a generation or two. To understand these aspects of the southeastern archaeological record, we need to try to learn what it is about various local Mississippian societies that translates into greater or lesser stability. Such knowledge, once developed, should prove useful to the development of larger theories of cultural evolution. While it's something of a truism, political stability appears to ultimately depend on the permanence of organizational structures. In chiefly societies, following Wright, there's one kind of political control exercised by figures drawn from an elite ascribed group.

The stability of chiefly societies it is argued is at least in part directly related to the effectiveness of the mechanisms by which the elite maintained their positions of authority. A critical factor in many of these societies, I believe, is the development of an ideology of power or chiefly sanctity. The strength of this rationalizing idiom or appeal to sacred authority will determine to some extent the degree of societal stability. If the emergence and spread of Mississippian in the South Appalachian area reflects a combination of primary and secondary chiefdom formation, the different attributes in evolutionary trajectories in these kinds of political entities will need to be better understood to promote their recognition archaeologically. The stability of these chiefly societies furthermore should be directly related to the nature of their emergence and subsequent development, particularly as this relates to the establishment of chiefly elites and legitimizing ideologies. In brief, it is argued that primary or pristine chiefdoms are likely to be more stable than secondary chiefdoms.
Now the emergence of pristine chiefdoms has been the subject of considerable research and a number of mechanisms have been advanced. Precise explanations do remain elusive. But one thing is clear, it appears that these formations emerged fairly gradually. The development of a chiefly ideology cannot have occurred overnight, but appears to have taken a fair amount of time, probably on the order of several generations. It is this gradual emergence of pristine chiefdoms that particularly distinguishes pristine from secondary chiefly polities. A result is the development of entrenched ideological mechanisms for the maintenance of chiefly power. These mechanisms may not be present or as effective in secondary chiefdoms. Now the emergence of secondary chiefdoms is assumed to be a reactionary process. Once a primary chiefdom has formed in an area such as Etowah, Macon Plateau perhaps, it should tend to grow if for no other reason than to disperse potential chiefly contenders or to maintain the prerogatives of the elite. There's a possibility, there's a biological argument, that the elite may, by having greater access to resources, including presumably food, they may have enjoyed a greater reproductive success than the commoner population. Elite population growth in this view may be a cause of the expansion of chiefdom level societies, dispersing potential claimants. Now the advantages of a chiefly decision making structure may have translated into relatively greater reproductive success for all members of the society, not just the elite, further prompting societal expansion. Now the initial appearance of a chiefly society in a region is thus likely to trigger the rapid emergence of other such polities. Carneiro has done a lot of work with this, and he's noted that once chiefdoms begin to form in a region they spread rapidly. The military advantage, to quote him, that size alone confers on a society means that even a minimal chiefdom will have a significant edge over its neighbors if they are still independent villages. As a result, it will not be long before autonomous villages, as such, will cease to exist. Either they will be defeated or incorporated into one of the existing chiefdoms, or they will join forces with other such villages in defense of alliances which will themselves tend to become chiefdoms. The collapse of chiefly polities may also come from over extension and a failure to effectively reorganize. The relatively rapid emergence of secondary chiefly societies means there is little or no time for a rationalizing ideology to develop. Chiefly authority is thus more likely to reside in coercive or cooperative mechanisms in secondary chiefdoms. As such these structures are likely to be fragile and of fairly short duration unless they manage to survive until a legitimizing ideology can be set in place. Finally, leadership positions in secondary chiefdoms may be less likely to be hereditary since prowess in warfare or in decision making, rather than membership in a sanctified elite was probably the most important criteria for social advancement. Several characteristics thus differentiate primary from secondary chiefly societies. These are slow versus rapid development, stable versus less stable authority structures, the presence of a well established genealogically sanctioned elite, as opposed to a weakly sanctioned cooperative or coercive authority structure, and finally the presence of hereditary elites and a restricted system of social advancement as opposed to a more open and less stratified social system. Iconographic representations and the veneration of chiefly ancestors can be best interpreted as devices to legitimize and reinforce the ideology of sacred power that permeated and gave structure to southeastern Mississippian society. The stability of individual Mississippian polities, I argue, was directly related to the strength and importance attached to these ideological structures. Now the cults surrounding the veneration of chiefly elite ancestors appear to have been a central focus of Mississippian ideology.
Major sites throughout the region were characterized by the presence of temple mortuary complexes where the bodies of the elite were maintained in honored status in shrines that were often physically and hence symbolically elevated above the surrounding populous. Within these temple shrines, in addition to the remains of the noble dead, were objects of wealth, sumptuary devices, weapons, fetishes, and sacred relics--as Jim Brown has called them "condensed symbols of sacred ancestral power." Ties to ancestral territories and the actual bodies of ancestors rather than to ceremonial facilities themselves, for example mound groups or earthworks, appear to have been particularly important aspects of Mississippian ideology. This behavior helps to explain why major Mississippian centers in the Southeast once abandoned were not invariably reoccupied. Newly ascendant Mississippian polities in this view were not ideologically bound to remain centered about their place, or were ideologically bound to remain centered about their place of origin. Relocation to previously dominate centers where elaborate ceremonial facilities were already in place does not appear to have invariably or even typically occurred.

The central town of the sixteenth century province of Coosa for example, apparently at the Little Egypt site, was certainly far less imposing than Etowah, which was apparently a tributary town to Coosa. Occupying the former center of power does not, therefore, appear to have been a necessary prerequisite for claiming chiefly leadership. Desecration of a rival society's temple, specifically it's ancestral burials, furthermore, was considered the ultimate possible insult and a primary goal in warfare. Permanent site abandonment may have followed such desecration. The attached dishonor might have been such to preclude any re-use regardless of the extent of facilities in place. Mississippian iconography, particularly ancestor worship, thus serves to illustrate and legitimize the positions and aspirations of the major sectors of southeastern chiefly societies. Chiefly stability, unquestionably dependent on the degree to which these social tensions were mediated. Challenges to chiefly authority reflected challenges to sacred authority. Extended crop or hunting failures, defeats in warfare, or disastrous weather, while potentially destabilizing in and of themselves, would have additionally led to a weakening of chiefly authority by posing direct questions about the sacred position and intermediary role of the elite.

In Mississippian societies where chiefly authority was strongly accepted, perturbations such as this would have to be severe before challenges to leadership or changes in organization would be likely. Where legitimizing ideologies were weakly developed, however, as in emerging or secondary chiefdoms, such stresses might have brought about rapid societal collapse or reorganization. Competition between chiefdoms for agricultural land, hunting territories, control of raw materials or trading networks, or for other reasons, appears to have played a major role in the organizational fluctuations observed in prehistoric southeastern societies. The evolutionary trajectories of Mississippian polities and some portions of the South Appalachian area are becoming increasingly well known. Cycling behavior in these polities has been noted by several authors and has been perhaps best documented in Hally and Rudolph's recent overview of Piedmont Georgia Mississippian. That local Mississippian polities appeared, expanded, and then collapsed is becoming increasingly recognized, as is the existence of probable buffer zones between most, if not all, of these societies.

It is suggested that understanding how these buffers functioned might help us to understand why regional population fluctuations tied to chiefly cycling and organizational restructuring, occurred. Ethnohistoric evidence suggests that Mississippian buffer zones in the Georgia-South Carolina area were aggressively maintained. Individuals from other polities found hunting in
these areas were typically subject to attack. Areas closest to permanent settlements were thus the safest for hunting and other resource procurement activity, while increasing danger obtained the further one went into the buffer. One obvious result of this is that the central portions of these buffers were only infrequently visited. As such they served as prey reservoirs in ecological terms, from which game animal populations depleted closer to settlements might replenish themselves. The presence of buffer zones, whether intended or not, thus appears to have helped local Mississippian populations avoid severe resource shortages. Buffer zones, particularly those portions closest to permanent settlements, also served as hunting territories, probably for animal hide and protein resources. It would be important to learn if the extent of these resource procurement or buffer zones was directly related to the population size of the groups using them. This is suggested when phase distribution maps, such as those by Hally and Rudolph, are examined, although a range of variables need to be carefully considered.

If such a relationship could be shown to exist between a Mississippian polity's population and the size of its buffer zone, controlling, of course, for variation in gross environmental parameters, it would further suggest that the successful function of these buffers was essential to the maintenance of organizational stability. The collapse of chiefly polities, given this perspective, might be as likely to ensue from gradually increasing resource pressure as from attacks on or threats to actual settlements. Crop failures brought about by localized or widespread droughts, flooding, or other catastrophes would also have threatened the stability of southeastern chiefly polities. The dispersal of fields over fairly large areas and in a number of micro-environmental zones would be one effective risk minimization strategy. Another effective strategy would be the development of increasingly larger organizational networks. As the geographic skill of these entities increased however, information management would also become increasingly difficult, particularly as the number of discreet interacting locales increased. The characteristically linear riverine settlement systems found in many southeastern Mississippian polities, furthermore, added more constraints on effective information flow and hence political management. Dramatic evidence for cycling in chiefly polities can be seen along the middle Savannah, which was densely populated by Mississippian populations during the twelfth through fifteenth centuries, but was then precipitously abandoned around A.D. 1450.

At the time of the DeSoto entrada the area of the middle Savannah was uninhabited and formed part of an extensive buffer zone separating the rival provinces of Ocute and Cofitachequi. Possible evidence for the emergence of this buffer was observed at the Rucker's Bottom site where increasingly complex fortifications appear in the last century prior to site abandonment, which occurred about the same time that the entire lower drainage was abandoned. Increasing tension and possible hostilities between local chiefly polities, presumably between those along the Savannah, the Oconee, and in central South Carolina is inferred by this appearance in elaboration of fortification. Minimally, this case demonstrates the importance of a regional perspective when examining local situations. While the abandonment of the middle Savannah around A.D. 1450 was perhaps the most impressive evidence for cycling, behavior considerable additional evidence is available. Several Mississippian ceremonial centers emerged, were used for a century or two, and were then abandoned along the Savannah prior to the final depopulation in the fifteenth century. These sites included Lawton, Hollywood, and Beaverdam Creek.

Why these centers were abandoned remains unknown, although it appears that the activities undertaken at them were subsumed by other, much larger centers elsewhere along the
drainage, at Irene, possibly Silver Bluff, and Rembert. This suggests that locally the development of apparently increasing social complexity was coupled with increasing centralization of authority at the expense of smaller centers. The depopulation of the middle Savannah after 1450 may have been thus partially caused by an increasing encroachment on the Savannah polity's traditional hunting preserves by the rapidly growing Mississippian populations of central South Carolina and Georgia. The populations of Ocute and Cofitachequi observed in the early contact era appear to have been particularly high. This may be due in part to the size of the buffers surrounding these polities, which appear to have been much larger than those in place previously, particularly in the vicinity of the Savannah Basin. These possible relationships between Mississippian polity size and stability and the size and stability of its surrounding buffer warrant further investigation and testing. The developmental trajectories of local chiefly societies, their emergence and expansion, and not just their decline and collapse warrant careful attention and can be useful to the development of broader anthropological theory. Theoretical investigation, it is argued, can ultimately greatly facilitate archaeological interpretation.

SHAPIRO - Question.
HATCH - Yes, I'm a bit confused. In the entire organization of your theoretical arguments, the first section of the paper dealt with an argument that would ...
ANDERSON - Ideologically based.
HATCH -...that would base the understanding of the formulation and organizational strength of these societies on the ideological underpinnings of the chiefly status and the linkage between those status positions. The second portion of your paper argued that ecological constraints, that agricultural grounds, hunting territories, etc., are important in understanding these same phenomena, and then there was a portion of your paper where you mentioned, essentially information theory, where your concerned about the flow of information or networking of information. Now I don't think any of us in the room will argue that those variables are critical in the understanding of any functioning of any ranked society anywhere on earth. The question is, which is it that you are giving particular emphasis to?
ANDERSON - I don't advocate mono-causal explanations. I think that you have to look at these evolutionary phenomena in terms of a range of variables. You have to consider not only the ecological, but the ideological. You have to consider information management and other phenomena. I guess I take a multi-causal approach similar to that advocated by Flannery in his '72 paper. It's just a personal philosophy. Now I'm still developing this. I just feel it's a very complex phenomena and, rather than pick one area and say I'll look at the ecological aspects. I think that ecology, for example, might help us understand some aspects of what we're seeing, but there are others...
HATCH - You seem to be saying that in terms of your application of these ideas to the Savannah River data. The information that you use was apparently most suitable to in your opinion an ecological explanation rather than an ideological explanation.
ANDERSON - Well...
HATCH - That was the impression that I got from that last section of the paper.
ANDERSON - I think that one possible explanation is ecological encroachment upon resource areas. I think that's a possibility. However, the encroachment is by more successful organizational systems, and why these are more successful may relate to the development of the more successful legitimizing ideology. I mean, I don't know, I...this is the initial wrangling with
what would be a long stage, long duration effort. I'm going to try to wrestle with these problems over the next couple of years, and at this point I'm sort of, as you're saying, I'm bewildered by the complexity, and I think that we have to look at a lot of directions.

**HATCH** - Well, I support your multi-causal approach very much. I support the evidence and arguments that you're making there at the specific level, virtually 100 percent. The concern that I had was when it comes time for you to reach a conclusion, a particular explanation of the configuration, rise and fall and cycling of a particular chiefdom in a particular area, exactly how you plan to do it if you're giving equal concern or consideration to each of these multi-causal variables.

**ANDERSON** - Well, that...

**HATCH** - Exactly on what grounds can you make a decision or achieve an explanation?

**ANDERSON** - That's a good question. I...the reason I'm looking at a number of areas is because I honestly don't know which one is the most important. I don't think we really understand in many cases why these societies crash. And one of the reasons why I'm looking at a lot of areas is to see which one may be the most successful. I think it's going to be a combination of factors, but being of somewhat materialistically based, I would like to hope that the material or the ecological sphere would have a fair amount of importance, but I honestly don't know where this research will be going.

**SHAPIRO** - Steve?

**KOWALEWSKI** - Let me try this another way. Do you have any prior indication that, from southeastern data, there is any evidence of resource shortages? Do you have any prior indication from southeastern data of gradually increasing resource pressure that might lead you to investigate or measure some of these variables in particular?

**ANDERSON** - Well, one thing, skeletal biological evidence might help us to address questions like this if we see deterioration in population...

**KOWALEWSKI** - No, I mean now. Any indication of this from existing southeastern archaeological or historical data?

**ANDERSON** - The abandonment of areas. I'm not sure if I follow what you're saying, specific evidence thereof.

**KOWALEWSKI** - Well, it's the thing that you're trying to explain so you can't use that...

**ANDERSON** - Right, exactly, exactly. Well, could I throw that question out to the general, because that's the sort of thing I'm looking for is evidence like that.

**SHAPIRO** - I would bet this, that if you are going to talk about depletion of an area in terms of its natural resources that you have to figure out first what's keeping people from moving out of that area and depleting those resources. There's some political or social reason to stay in a bounded region, and that's the only way, I think, with the population densities we had, it's just impressionistic, that you could have depletion of any area, that there's some social or political reason to stay there.

**ANDERSON** - So you're squeezed out by...

**SHAPIRO** - The competition, you know, the needs of various sites that depend on each other, what have you. John.

**JOHN WHATLEY** - I remember one thing that came up, and it may have been answered, but when the archaeologists first went to Wallace Reservoir, it was one of the first times they had seen these shell middens at the Lamar period. And that was postulated as an indication of resource
pressure that they had turned to these riverine shells. I don't know whether that's appropriate here or not.

ANDERSON - Thank you.

SHAPIRO - Well, maybe Jim could enlighten us a little bit about that.

RUDOLPH - Well, I still think it's in terms of a...it's some indication of resource pressure. They're turning to habitats that might not have been as desirable as before, but I hesitate to say it's population pressure strictly, because I think there are other things that could lead to that kind of...

HATCH - Like what, Jim, like what?

RUDOLPH - Well, you know, more demand for surplus or hierarchical hierarchy, or something like that.

SCARRY - One place that's been suggested, it seems that there might be some pressure playing in the Black Warrior Valley. Once Moundville collapses, the valley is...the population of the valley decreases markedly.

HALLY - What?

HATCH - Could you speak up, please?

SCARRY - In the Black Warrior Valley, once Moundville collapses, the population decreases or appears to decrease, and areas around the Black Warrior Valley that were under populated before, in fact, had population increases, and it's been suggested that the organization provided by the elite at Moundville allowed a higher population density than the lower level organization would allow in the valley. Some of the minor centers, particularly the White mound and village to the south of Moundville, is in really an atrocious place. It's worse than Lamar.

[LAUGHTER]

WILLIAMS - Today.

SCARRY - Today. And if there's a place in the Black Warrior Valley where corn agriculture may have been a risk it was in that area.

KOWALEWSKI - But this is again arguing that you said it has been suggested that there was a resource shortage and the evidence used is an abandonment.

ANDERSON - Steve, at Dickson Mounds there's, forgive me if I'm wrong, but isn't there evidence for a lot of stress on the populations prior to reorganization from the Late Woodland to Mississippian acculturated or Woodland acculturated Mississippian into Mississippian. That's an example of reorganization being perhaps brought about by increasing stresses on a local population. That's one possible line of evidence. Another possible way to approach this would be to look at the resources within an area as people like Graham,?? Lee, Turner, et al. have done with Huronia, looking at the Huron and Iroquois pressure on deer resources in the Northeast for hides and for protein. I think that we need to find out first of all is it even possible to deplete these areas of white tailed deer. They seem to be everywhere in the Southeast. We need to look at examples like that. Maybe the buffer zones reflect the amount of space you need to maintain the number of deer to keep the population in the central valleys...I mean, I don't know...it's, you can...we don't, we haven't tested this. We haven't explored it. It's something I think we need to think about.

F. SCHNELL - I'm very curious very much about this buffer zone business and talking about that. I've been wondering. There's so much interaction in the eighteenth century among the Creeks based upon both micro- and macro-buffer zones in these hunting lands and so forth. It seems to
me that's at least an analogous type of situation that's in the same geographical area that you, that
somebody...I don't know, maybe somebody has investigated that in some fashion. I don't know.
ANDERSON - I would like to emphasize that I would really appreciate any ideas like this that you
people have had, because obviously I'm just getting started on this, but...
SHAPIRO - Bring them up during the break and we'll come back in 15 minutes.
ANDERSON - Okay.

BREAK IN TAPE 6 SIDE 2

WILLIAMS - I've been excavating in the Oconee Valley, as I'm sure you're disgustingly tired of
hearing, for some time...
SHAPIRO - We were going to call this "yet another paper by Williams and Shapiro."
WILLIAMS - Yes. Last summer's excavations at Scull Shoals, attempting to fit the ceramics
from there into the chronologies that Marvin had set up for the early portion of the Oconee Valley
caused some problems. Basically it wouldn't fit.

[LAUGHTER]
WILLIAMS - And so after studying this stuff a while what became clear is that, while Marvin, at
the Dyar Mound 10 miles away, did not have any Savannah materials, but had some good late
Etowah materials, we on the other hand at the deepest portions of the Scull Shoals site had no late
Etowah, but good Savannah material. And likewise, Marvin at the Dyar site had very good early
Lamar materials. At the Scull Shoals site there does not appear to be a very large occupation of
early Lamar. And so the immediate thing, after recognizing that fact, we started to say, and
almost in jest, hey, it looks like they're alternating occupations back and forth between these two
sites from the late Etowah to the Savannah then to the early Lamar, and in the later periods it does
appear that both of the mound sites, at least to the levels that we have our chronologies defined
thus far, appear to both be occupied, but I'm going to leave that in abeyance. What this paper does
is take the simple suggestion, based upon the data from those two sites and says what if these two
sites were alternately occupied? They're about five...they're, those two mounds are about 10
miles apart.

And then in looking over the archaeological distribution of mound sites that we've all been
playing with for 50 years, and that Dave and Jim have recently been putting together in their RP3
publication, it became pretty clear that many of our classic Lamar sites exist in pairs or exist in
mounds that are in the range of about 10 miles apart. Just for an example other than, let's say, if
we assume for the moment Dyar and Scull Shoals, others, Neisler and Hartley-Posey on the Flint
River; Lamar, right here, and Stubbs Mound downstream from here; Tugalo and Chauga Mounds
on the upper Savannah; the Park and the Avery Mounds on the Chattahoochee at the Fall Line;
Hollywood and Silver Bluff on the Savannah below the Fall Line, and the list could go on and on,
Beaverdam and Rembert, and I'm sure...and I do want to hear from you your own specific pairs of
mounds. And thus the question became why might this be the case? What sort of conditions
could lead to such a situation of paired mounds? And could it be that many of these paired
mounds are paired because of alternating occupation? We have always, in my mind, and all the
people I've ever talked to, assumed that these nearby mound sites represented what I call
"co-continuous occupation," or at least major portions of their life-span. We have two mounds
near one another. They're part of a little interacting chieftom or two towns and so forth. But maybe that's not the case and the Scull Shoals and Dyar data tended to suggest that. Yes?

HATCH - Are you saying alternating occupation or successional occupation?

WILLIAMS - Yes. Successional, well, one, then back and forth.

HATCH - Back and forth.

WILLIAMS - Back and forth. That's one possibility. Of course it can be other things. It might not come back to it, but there's some good reasons why it might come back to it, too, I think.

SHAPIRO - At the very least you've got temporary abandonment of mound and village sites, so...

HALLY - Of a generation? or 50, 100 years, what?

SHAPIRO - A phase.

WILLIAMS - Well, a phase. And as I said yesterday our phases are, in many cases, down to about 100 years, and so we're looking at maybe a couple of generations, but maybe even a generation, I don't know. This is something we have never been able to even address before until we have gotten our chronologies down fine enough to the point where we could even think about addressing such a question. What I want to very quickly do is just, as it does in the paper, run through some of the wide range of possibilities that might lead to such a situation, anything potential, and we think there may be some of those that are more important than others.

One of the first ones that jumps in anybody's mind, if we're going to think of all the material or environmental reasons why such a situation might take place, is soil exhaustion. If you exhaust the soil, you can no longer grow decent crops, you're a fool to stay there, and you should move your town to where you can. If you move 10 miles away, that should be plenty. However, most of these sites are in flood plains, as we well know, and it's difficult to exhaust these flood plain soils. They flood. They renew themselves. We don't know the rates of renewal exactly, but by and large we tend to discount the idea that exhaustion of flood plain soils is a reasonable reason for moving one of these sites from one to the other. Some of these sites, by the way, we have to go ahead and accept, are in upland situations. We've got sites such as Shoulderbone which has very little flood plain soil there; and Little River, and I don't know how much is near Singer-Moye...

F. SCHNELL - Not much.

WILLIAMS - ...but from what I...there's not a whole lot of flood plain there. So there's a different situation. We've got two different situations here with respect to soil, and for those sites, for whatever reason they might be in their strange locations, which is a different question, I think. Perhaps soil exhaustion is something that would have to be a bit more considered, particularly in light of the fact that we now at least in the Oconee Valley area are starting to get pretty good indications that some sort of swidden agriculture on a very small scale must be going on at least at some of the later time periods. That's another thing entirely. I know we haven't talked to you much about swidden in Lamar, but I think that we should.

Other potential exhaustion things--your animals, the faunal resources, the deer. We tend to think that exhaustion of deer within the a range of a site is not sufficient reason for moving the site for only 10 miles. If you're going to exhaust the deer populations, you're going to have to move much greater distances to make it worth your while for exhausting deer. Fish, I first thought, well, maybe you can deplete the fish resources. If you over exploit them, but Gary who knows better about such matters suggested that he didn't really think that we should, and so that's the fact that we've taken on that for the moment, just as a suggestion. And in any event I still can't see moving a major site because of exhaustion of the fish in the river at it. It just doesn't make...
doesn't ring true. And that's something we're kind of looking for. What rings true? And maybe that's a different test than a statistical test, but I think it's an important test.

Floral resources, of course—the grown food with corn, beans, squash, what-have-you is going to be a direct result of the soil quality and the water availability, so that kind of feeds back into what I said a minute ago in relationship to soil exhaustion. However, there are some other floral resources to consider. The mast crop—nuts, hickory nuts, and acorns, which we all know were continued to be reasonably important food sources for these Lamar societies right on down to even historic times. We find them archaeologically, in many cases, as commonly as we do corn. We certainly can't discount those. The question there, I guess, would be that the exhaustion of all the nut harvest...you must presume that's kind of a renewable thing, and they would be crazy to cut down all their nut trees. They really would. So at any rate, we still can't see that as a reasonable reason for moving any towns.

Then there is one though, that we have always ignored, and I'm not trying to put this forward, and certainly in the paper we don't put this forward as a single cause, but it's something that we've ignored, and I don't think we should ignore any longer, and that's wood use, or exhaustion of wood, firewood, what-have-you. What we've, you know...we've all been born and raised, most of use anyway, in this eastern woodlands. And we tend to think of the eastern woodlands as an inexhaustible source of wood. And on a broad scale that's absolutely true. But what we've really not seriously considered, I don't think, is exhaustion of wood on a very local level, that is the level around a specific archaeological site. What we did in order to examine this was to create a little computer model, where we input as many different logical uses for wood and estimate their usage as we could and ran a number of different models to see what happened. I wanted to just to briefly read, if you haven't already, the different variables...

END TAPE 6, SIDE 2
BEGIN TAPE 7, SIDE 1

WILLIAMS - ...Mississippian or Lamar house, the amount of wood to build the palisades, the yearly maintenance percentage for upkeep on all of these structures, the fire wood needed for cooking, going on ethnohistoric sources that they kept a fire going in virtually every house all the time. Food was always there ready to be eaten, and we know also when they put out their yearly fire everybody would start over once a year. It seems a reasonable thing. Wood for heating, the amount of wood used for even tools and utensils, and then considering the number of trees available in an area that they could draw upon, the rate of regrowth of trees in areas that were stripped of wood, and then the population of the town, thus the number of houses, and then finally the total time that the town was occupied. And go through and change these variables and see what happens, and it was startling to me that if you have a Mississippian or Lamar town of, let's say the size of the one we visited this morning [Lamar, 9Bi2] or even smaller, after about 50 or 75 years, even allowing for regrowth, you've got problems. You, in many cases, are going to have to be going up to a mile in order to get reasonable firewood. It also turns out quite clearly, and some other people have recently shown this, that of all of those wood uses, the use of firewood is usually up to ten times as great as all of the building and all for stockades and houses and maintenance and everything put together, and we tried to be reasonable or conservative in our estimates to do this, and so there is a pressure there in firewood. After perhaps 50 or 75 years you're going to start
having some people saying 'I'm getting tired, so tired of walking after this firewood each day.'

[LAUGHTER] And so that is, that's a much better possible reason for moving these towns than any of the others I think we mentioned before.

JONES - Does that include the fact that we had managed woods, you know, wood yards, have you ever thought of that?

WILLIAMS - I took the worst possible case. I said that they cut everything, which they definitely would have been crazy to do. You don't cut your nut trees. Your big oak trees would have been permanent sources for generating firewood--it drops out of the trees for you each year, and also the nut harvest itself. I'm sure they were managing the forest, which would only push, put more pressure on them, in terms of the distance they would have to go in order to get firewood. Perhaps even 2 or 3 miles would not be an unreasonable thing. Obviously in terms of energy expenditure, if you want to play those kind of models, eventually there going to reach a point to diminishing returns. Yes.

HATCH - In terms of energy expenditure, another element that I don't think you added to your data matrix is a concern over the fact, as you say, swidden agriculture may well have been a major factor in the economy of say the Oconee Valley. Depending on the periodicity in the swidden cycle itself, it could have significantly stripped away potential tree resources through burning and really accelerated the pace of pressure on available firewood that your simulation resulted in, so if anything it's going to make that an even more extreme case, a more rapid sort of deterioration.

WILLIAMS - We have not assumed swidden for the large towns, and I think that we can't really do anything with that archaeologically, but that would create outlying pressure probably back towards the town, and I think you're right it is going to make it worse.

SCARRY - Mark?

WILLIAMS - Yes.

SCARRY - At least in the Moundville system, the wood utilized in charcoal, seen in charcoal, presumably non-structural fires, does not reflect the species frequencies or diversities seen in the environment around Moundville, or any of the environments around Moundville. They're being very selective in what they would burn. I guess the point would be, maybe a suggestion, that there wasn't a whole lot of pressure on the firewood. I think they'd burn everything around the site before they abandoned Moundville or...

WILLIAMS - Moundville, you're right.

SCARRY - But they never did there.

JONES - Yes, but that was a case where you found a maintained center regardless of the problem.

WILLIAMS - Yes, I think that you've got some centers that are worth maintaining, and I think some are not worth maintaining. [LAUGHTER] I'm not going to make a decision myself.

HATCH - I don't want to interrupt your presentation here, but John, I wouldn't expect to find a kind of a random cross-section of species diversity in any firewood sample, I don't care where in the east or at any point in time...

WILLIAMS - Well, we have to go ahead, I've got several more points and I only have a couple more minutes apparently. Military conquest within the valley to wipe out towns--no way to show that--just throw it down the garbage. Chiefly succession, now this is a slightly complicated thing, but I think it's important. We all agree that we're talking about chiefs. We need here only talk here about the town head men, although we may talk about your level of micos, and have a couple of towns. If we have a mico, he's going and he's in charge of a few towns around him, each of
which has had a head man, it's pretty clear that the people that he puts out in charge of that town are going to be some family members. A viceroy is the appropriate word for these outlying town chiefs. Eventually the leading chief grows old and dies. When the chief dies you've got a problem of succession. Now David himself mentioned a while ago that in secondary chiefdoms you probably had more competition for office than in a primary chiefdom. Our Lamar chiefdoms, from your sense are definitely secondary chiefdoms I think.

And so what I'm suggesting here is there's going to be some intrigue in succession, and there's not guaranteed certainty, in spite of the rules of inheritance, as to who is going to be the next chief. If one of the chiefs in an outlying province, a viceroy, for whatever political or intrigue reasons becomes the new chief, he's going to have a choice and that choice is going to be to rule the local chiefdom from his town or to pick up lock, stock, wives, retinue, etc., and move to the town where the chief has died, perhaps the town of his lineage and rule from there. Now, the point I want to make here is that the archaeological effect on the town he leaves behind, if he leaves and moves, is going to be determined by the percentage of the town's population made up by the chief, his wives, and retinue. If they only make up a small percentage of the population, then archaeologically you'll see very little change in the village he leaves behind. If on the other hand, he and his wives and retinue form a large proportion of the population of that town, and they leave, archaeologically that site might appear to have been abandoned. Now, and this is certainly true in many of the African chiefdoms, you have the concept of the chief's compound, forming what we might call a town. I mean the chief has a number of wives, and you end up with a fairly large population often with a little palisade around it, and so the suggestion here is that some of these Lamar "towns" (end quote) may not be towns in the sense that we have traditionally thought about them. They may simply be chiefly compounds. These Lamar sites, mound sites are typically a lot smaller than Moundville, or Lake Jackson, or some of these things. Maybe they are a different order of town. Maybe they are chiefly compounds and this movement of a chief from one area to another might explain this abandonment.

Now why would they move back? Well, from the material point of view, there's a very good reason in relationship to the firewood that we mentioned earlier. That is this--that after a period of a generation or two, the wood has grown back, but not only has the wood grown back for firewood use, the wood has grown back to the perfect size for building houses and palisades. You don't want to move into a virgin forest area to form a new town. The trees are too big. You don't want to try to cut down live oaks with a stone axe, and you couldn't cut it up anyway. So, there is an attractiveness to the former location in terms of the resources for wood being able to be used for that.

Well, the last thing I really want to do here, before maybe if you have time for a couple minutes of discussion is to say that, if this is true, then it leaves us with a very important implication for archaeological research. Among all the other important implications it might have, is that if you try to develop the chronology within a valley at only one of these sites, you're going to get a chronology that's full of holes. And therefore, you're going to have to, as we have done here at Scull Shoals and Dyar, develop a chronology based upon all of the sites, and then sit down and try to put them together to fill in the gaps. Now, I may be totally wrong. Only time can tell, but I would say keep those ideas in mind and go and play with them and see how they work for you. Yes.
WOOD - Can I just go right to the very beginning of the issue. How comfortable do you feel that what you presented us is actually fact? Now I'm familiar with your work at Scull Shoals. I'm familiar with Marvin's work and so forth...

WILLIAMS - Well...

WOOD - Marvin's work is pretty extensive. Yours is basically testing.

WILLIAMS - I have an N of one case, and...

WOOD - But you have one test pit also. You have one excavation at that mound.

WILLIAMS - That is true.

SHAPIRO - What about the village?

WILLIAMS - Well, the village showed, although it's mixed up, it showed the same presence of absence of phases. They were just all mixed up.

SHAPIRO - It's not just the cessation of mound use.

WOOD - Yes, okay, but I guess I'm just trying to get you to...

WILLIAMS - I feel comfortable with the Dyar/Scull Shoals gaps, but I'm willing to admit that if every other place this is tested where we have good chronology does not show this, then I'm probably wrong.

WOOD - Okay.

SMITH - But I think Dean's getting at do we have a problem of just not having a large enough sample. I think the Dyar sample is fairly tenuous.

WILLIAMS - 15 to 20,000 sherds.

WOOD - Yes, I'd say Dyar's good.

SMITH - No, I'm not even sure I'd be that confident in Dyar.

WOOD - Really?

SMITH - ...in sequence. And what Dean's saying is you have 20,000 sherds but only from two spots on the site.

WOOD - I think it's a great idea. I'm just trying to see if I can back you up against the wall or anything like that.

[LAUGHTER]

WILLIAMS - I feel comfortable with those sequences. I have obviously no idea about other areas. Now Dave Hally had suggested for the Tugalo/Chauga sequence some months ago that he thought he saw that there, and then the last I talked to him he said well he didn't really think he'd seen it...I don't know, what do you think today?

[LAUGHTER]

HALLY - I don't know if I want to answer it if you phrase it that way. The first four stages of mound building at Tugalo and Chauga are apparently contemporaneous, at least the level of the phase, okay. At Carter's Dam you got three mound sites, and they seem to be purely successional. You have Late Etowah II, III at Sixtoe, then you have Bell Field, which is presumably Savannah time period, and you have Little Egypt with the Little Egypt and Barnett phases, so there you seem to have, at least at the level that we can see it, a continuous occupation, but moving from one site to another, but never back.

WOOD - But those aren't really that far apart though are they?

HALLY - No, but still it's a violation...it's contrary to what he's suggesting.

WILLIAMS - Because you're suggesting that they're too close together.

HALLY - Yes.
G. SCHNELL - Can we throw in an alternate possibility?
WILLIAMS - Sure.
HALLY - Let me finish okay?
G. SCHNELL - Go ahead.
HALLY - Another pair possibility would, of course, be Beaverdam and Tate Mound.
WILLIAMS - I thought you thought Tate was Woodland.
HALLY - I, well, I would...I don't know.
HATCH - How about the ..?.. about Dallas ..?.. ?
POLHEMUS - I think that would be a single hop, rather than going back and forth from Hixon through Dallas.
WILLIAMS - How far is a hop?
HATCH - Across the river?
POLHEMUS - Just across the river.
SMITH - I want to ask Kowalewski about formative Mesoamerica, Oaxaca. Did you notice...is there this sort of thing there?
HALLY - Let's just finish with the local data before we get outside, okay? [LAUGHTER] I think your Oconee data itself, Mark, I wonder if the Oconee data itself is somewhat contradictive, because at the end, in Dyar phase, all of those sites had Dyar phase occupations.
WILLIAMS - I agree. I said that in the thing, and I'm not sure what that means.
HALLY - Now, there's one other thing I wondered, isn't there something in the literature for the Natchez, Charlie, about an east-west, the Natchez had a fire on the east and a fire on the west of the province?
HUDSON - A sacred fire.
HALLY - Yes.
WILLIAMS - Well, I'm aware of the...
HALLY - Singer-Moye/Roods, east-west of each other, and one of them is way up on old tributary. We got on the Oconee...
WILLIAMS - Like Shoulderbone.
HALLY - Like Shoulderbone.
SHAPIRO - Red Town, White Town.
G. SCHNELL - That's what I was going to mention.
HALLY - In the Nacoochee Valley you've got Nacoochee site and Eastwood at opposite end of the valley. They seem to be contemporary as far as we can tell at this point. So, maybe there's actually a symbolic structural-type relationship.
SHAPIRO - If they're contemporary.
G. SCHNELL - If the...
SHAPIRO - Only if they're contemporary.
HALLY - Yes, yes.
G. SCHNELL - If the moiety system...
HALLY - ...something else to consider.
SHAPIRO - Yes, you bet.
G. SCHNELL - ...or some sort of social division like that, you know, extended back in time, that would be a good social explanation for it, and it wouldn't necessarily have to always alternate depending on who was in power.
WILLIAMS - Oh, I agree, but...
G. SCHNELL - ...one way or the other, but I mean, it would give you a reason for either, for having movement back and forth without always necessarily having to have been opposites.
SHAPIRO - I'd like to move us on.
F. SCHNELL - Can I mention one thing that...
G. SCHNELL - Now I think your thinking up my lines.
F. SCHNELL - Well, I just wanted to mention, one thing that bothers me about the firewood hypothesis and that is. These big sites on the rivers. A very simple solution, it would seem to me, to that is timber rafts.
HUDSON - That's right.
SHAPIRO - Come down...
F. SCHNELL - Yes, just a group effort to go up river, cut a bunch of wood and bring it down.
WILLIAMS - I think...
HUDSON - And also, dead wood. Now there's a lot of early descriptions on spring floods of rafts, huge rafts of dead wood coming down.
SHAPIRO - I think the next paper has some bearing on wood use and wood depletion. I'd like to hear Richard's presentation on architecture.
POLHEMUS - Well, the wood use end of it was something I wasn't going to get into today.
[LAUGHTER]
POLHEMUS - I was going to leave the technological end of Dallas architecture sort of out of it, but maybe I will mention a thing or two. This basically is both the technological and socio-political structural aspects of architecture, something I dealt with in, finally, my thesis, which I have a couple of copies available for sale.
[LAUGHTER]
SHAPIRO - That's right.
HALLY - He's selling his thesis.
POLHEMUS - Pardon?
HALLY - Mercenary.
[LAUGHTER]
POLHEMUS - But, anyhow, the numbers and the details are both in this and then the hopefully soon to be seen Toqua report.

The architectural or structural aspects of a society reflect both the technological level and the socio-political structure of the society. This paper will summarize several aspects of on-going research concerning the Dallas culture in the east Tennessee Valley. Technological aspects of Mississippian architecture are dealt with elsewhere. Dallas culture is now frequently characterized as a combination of architectural, mortuary, subsistence, and ceramic traits displaying many of the characteristics of a chiefdom level of a socio-level political organization. There is an underlying assumption that Mississippian societies were organized at a chiefdom level, or at least some form of ranked socio-political hierarchy. Hudson has stressed that not all chiefdoms comprised comparable numbers of people, nor were they equally centralized. And I think this is something that we've been revolving around for most of the day is we're dealing with things on various scales of magnitude. Not all archaeologically defined chiefdoms should be expected to display the magnitude of centers such as Etowah or Moundville. Architectural or structural aspects of rank societies may be expected to differ in degree or relative complexity
rather than in kind. In other words, they have a basic technological pattern or format and it's merely elaboration on that format that would differentiate, say public buildings from domestic buildings. Data concerning, not only individual structures, but structure content and discernable site structure have been examined for this study.

Although primary emphasis was concentrated upon the Toqua site and other Dallas sites on the lower Little Tennessee River data from throughout the Dallas culture area on file at the Frank H. McClung Museum were included. The architectural or built environment of a society includes not only the individual sheltering structures, but the spaces between them. Sites structure, like individual structure units reflects the spatial needs of the society responsible for it's construction and therefore creates into the greater realm of settlement patterning. Several aspects of structures in the built environment are discussed with respect to such patterning. The basic building block we have, or blocks, I should say, are two basic structure types. One is what I've referred to as primary structure. It's the basic form that everyone's probably familiar with on the later time scale, with interior main roof supports, rigid single set post construction, usually rectangular, with a prepared clay hearth in the center. The other is smaller, generally rectangular, what I call a secondary structure, with more open form of rigid single-set post construction. These two structure forms occur together in a range of socio-political context within Dallas society, in different size proportions and interior elaboration and content in relation to the position occupied within the socio-political context. At the most basic level the paired primary and secondary structures in conjunction with other facilities make up the minimal settlement unit described below. At the highest level such paired primary and secondary structures functioned as public building of great size and interior elaboration.

Dallas primary structures consistently display evidence of partitioning and differential use of space. Such structures, usually possessing four main roof supports, were divided into an open public area and a subdivided private area. The public area was made up of the central portion of the structure centering on the prepared clay central hearths and founded by the main roof supports and served a variety of purposes, such as access, food preparation, and other activities requiring heat and light. The private area was made up of that portion of the structure situated between the main roof supports and the exterior wall, and it was frequently divided up into sections serving different purposes by partitions. The central portion along each wall, flanked by main roof supports, served as a bed or bench for individuals occupying the structure. The corners of this structure served a storage function. Food supplies and other materials were most frequently stored in the northwest and southeast corners at Toqua. Food preparation activities were concentrated on the side of the hearth toward the entry way, and on our best preserved structures at Toqua that was on the southeast side. That may change depending on which direction the entry way is aligned. It may relate to entry location rather than a specific direction. Residues from food processing, food consumption, and manufacturing activities were allowed to accumulate within the structure, and only the public area in the vicinity of the central hearth was kept relatively free of debris. Public buildings of the primary form were better maintained. The village domestic structures and were kept in a relatively cleaner state.

Secondary structures making up each minimal settlement unit consists of a rectangular open or semi-open building situated near the entrance to each primary structure. This structure form is characterized by relatively smaller size, presence of large postholes--postholes over a foot in diameter, surface fired areas, and the presence of burials beneath the floor. Structural debris
from a burned example identified at the Toqua site included maize cobs bearing kernels, whole cane, and wood fragments. A combination of archaeological attributes, coupled with ethnohistoric data suggest that such structures served both as food processing and food storage facilities. Secondary structures associated with primary public buildings were considerably larger than domestic examples and assumed the function of a sheltered pavilion in front of the primary structure. These two building forms, together with other possibly shared facilities of stone-filled earth ovens and a courtyard open activity area between structures, make up the minimal settlement unit, which I have to describe in the next section of the handout, and I really won't go into that. We need more time for questions or discussion. One thing that is interesting in relation to this minimal settlement unit--this combination of paired structures--a basic set of features is the potential this offers as a building block within settlements, rather than the individual structure of whatever type, because these consistently co-occur. They show up clearly on Dave's map of the King site, these two structure types.

Burial patterning at the Toqua site for a number of structures where we had a sufficient number of burials. Figure 1 has a diagram of the minimal settlement unit with suggested functional areas within the structure and the pair of structures together and the inner places activity-wise between the various units. Figure 2 illustrates burial patterning in one particular structure at Toqua. This spatial patterning of burials frequently found within Dallas structures, when viewed in light of ethnohistorical references to burial practices, provides indications of structure within domestic dwellings and perhaps within public buildings as well. The domestic model, for those individuals not removed due to status or other social or political ties, may be stated in the following manner. Those individuals who die at home will be interred within the structure, beneath or near the bed or cabin occupied in life. The spatial patterning of burials by age, sex, and association for Toqua village structures containing 18 or more individuals were examined. The structures displayed a circular to rectangular pattern of burials of all ages and both sexes situated along the walls of each structure.

Burials tended to be concentrated toward the center of each wall between the main roof supports. Adults tended to be situated near the center of the north, west, and south walls of each structure. Females were more frequently found along the north and south walls, and, when present within the structure, adult males tended to be found along the west wall. Sub-adults were concentrated toward the front edge of the beds or benches along all four sides of the structure. Burial associations for sub-adults were more common and of greater variety within the west half of each structure. Examination of such structure groups and of the articulated multiple burials from the Toqua site may provide additional data concerning the size and makeup of the social unit occupying the household or minimal settlement unit. Minimal settlement units may represent matrilocal, matrilineal residences units. The pairing of minimal settlement units likely represents an earlier stage of the winter house-summer house patterning encountered in both historic Cherokee and historic Creek towns during the eighteenth century. Doctor Faulkner had a paper on winter houses and summer houses some years ago.

Public buildings--Dallas public buildings were much like domestic structures that differed more in size relative proportions and interior elaboration than in overall form or technology. Each public primary structure at the Toqua site had its associated secondary structure. These are on the structure of Mound A.

SHAPIRO - Five minutes, Richard.
POLHEMUS - Pardon? Okay. Well, you can read about that part. The point I'm trying to make here is that these paired structures are found on the same locations for extended periods of time at Toqua and at some of the other Dallas sites. At Mound A at Toqua there are two of these pairs at each stage of the mound construction from top to bottom for over 400 years, one of which I think was a high status dwelling, which produced our only young individuals from the summit at Mound A at Toqua in the floor in the same position that one would find a sub-adult in the village area. Differentiation of public buildings and private buildings was based on a number of factors, including the percentage of interior public floor space to total floor space of the structure. Domestic structures had an average of 25 percent of public floor space, and public buildings had anywhere from 30 to 40 percent of the total structure floor space. This minimal settlement unit is this basic building block and occurs in groups around courtyards, which make up a more extended lineage or kin unit, and these are the units that we should be looking at, rather than individual structures, or individual 10 foot squares, or what-have-you, arbitrary units on the sites. And the individual towns, these are all compact towns. There are no minimal settlement units scattered up and down stream. No farmsteads. You can read the rest of it.

SHAPIRO - I'm sorry to cut you off. We have three more papers to fit in before 4:00 and an hour to do it in. But we could have a couple of questions at any rate, sacrifice a couple of minutes.

HATCH - Did I understand you correctly that on top of the mound at Toqua there was two buildings side by side?

POLHEMUS - We had two primary structures on every construction stage, from top to bottom, starting with Hiwassee Island-style construction at the bottom and the flex-style, construction style at the bottom and rigid construction in the upper levels with the secondary structures on the front edge of the mound all the way up, too.

HATCH - I've been intrigued by that. That seems to go along with the situation at the major mound in Hiwassee Island where not only do you have paired buildings, but you have apparently in the stratigraphic profiles in the report an alternating height advantage of one over the other and invariably that would flip flop back and forth. There were always two buildings and one always slightly higher than the other, and they would alternate from one occupation to the next. Do you have any feeling for whether or not both of those structures are residential, rather than just one?

POLHEMUS - At least at Toqua I'm convinced that, that only one was.

HATCH - And what was the other?

POLHEMUS - The other was some other form of public building based on interior elaboration, clay benches, clay partitions, and other clay furnishings on the interior of the structure as opposed to the accompanying domestic structure.

HATCH - What about at Hiwassee Island? Do you again feel that one is domestic and one is public or non-(?)?

POLHEMUS - Hiwassee Island is a little harder to wrestle with. Most of our Toqua data is later than the fancy architecture at Hiwassee Island.

HATCH - I look at...
SHAPIRO - I think it's got to be mentioned that paired pattern and the open-shed structure is what Marvin found at the...
SMITH - Dyar.
SHAPIRO - ...at the upper levels of the Dyar site. It doesn't appear to be the situation in the earlier levels.
SMITH - We couldn't really follow it down very well.
POLHEMUS - I think these mounds that have paired sets of structures may represent the intermediate level political unit that you were discussing. Those with only a single mound or only a single mound or only a single structure on top of the mound may represent sort of the basic level of your hierarchy, and these mounds generally have a multiple level summit too. One end is lower than the other, which may be due to these different structural functions and they represent your Mico level.
HATCH - Do you have any ethnohistoric support for this sort of double building on top of the mound? A sort of duality of political control for the village.
SMITH - The Dyar site had paired buildings.
SCARRY - Jim is that similar to what you think, or Frank, you have at Cemochechobee beneath the mound?
KNIGHT - Well, it's the same thing on some of the mound summits I think, at least the pairing of public buildings at least in one stage of the upper levels. I think those...there's not very many cases of that though are there? We're talking about three here.
SHAPIRO - Just these few pairs of these paired structures.
NANCE - Maybe it's a moiety system.
POLHEMUS - Well, that was one of the early suggestions by Lewis and Kneberg at Hiwassee Island.
HALLY - You have paired structures at Warren Wilson isn't it? One of those two Pisgah sites has the two earth bank structures.
SHAPIRO - I need to move us along a little bit and introduce Jim Hatch.
HATCH - All of you have copies of this paper. I'm going to try to summarize as quickly as I can and I want to preface it by a few comments that I've been picking up on here today. First of all, I want to acknowledge I'm going to be talking about a certain rationale for emphasizing mortuary analyses in southeastern Mississippian research. I think any of you obviously familiar with this sort of literature generated in 1960s and 1970s already understand that the methodological advantages of mortuary research. I want to quickly add that I do acknowledge the expense involved in terms of labor--taking labor and efforts away from other sorts of research they wanted to do--labor in terms of time and money that building a burial series and the excavation of a region demands. But I also argue that the information value is sometimes excellent from the point of view of regional studies and can very likely address, at least some of the questions or concerns that we've been expressing here in this conference so far. For example, I would argue that Hudson's earlier question about can we archaeologically measure the appearance of polities, their political integration, and measures of degree of paramountcy that are evident might in fact be best addressed by looking at the formal variety of mortuary defined political positions in not only centers, but also in the full spectrum of social context within the region.
I think, like the rest of us here, I am wedded to the concept of regional approach into the notion of chiefdoms as a useful ethnographic and theoretical perspective. We can't be too
monolithic, obviously about the concept of chiefdom, and I find that this group is clearly sympathetic to the idea that the original conception of chiefdom can be defined by Service, etc., is much to constraining for our purposes. We have to develop numerous models of what we want to concern ourselves with in chiefdom or rank society. And in fact very likely more models than the good ethnographic evidence can provide for us. So I think that we're going to have to rely on each other's archaeological evidence from various places around the world in order to build up a fund of models that we might find useful. I applaud the research efforts that Mark alluded to yesterday that address what we might call human archaeology or life-span oriented archaeology.

Certainly many of the things that mortuary research can do for us addresses in a sense single slices in time. The organizational characteristics of a region as it is measured in a single moment in time, as best as we can assess that archaeologically. And this is one of the major payoffs of mortuary research. At the same time, we can't forget that we as archaeologists must always conceive that there are certain phenomena that really only we can deal with effectively--that is long term developments--that, again, mortuary research can contribute to, related to life span irregularities of chiefdoms. What's the average life span of the southeastern chiefdom of various sorts, notions of collapse, relocation, etc. All of these clearly fall within the archaeological domain more so than the ethnohistoric or ethnographic domain. So here we can obviously add a good deal to the general anthropological conception of the notion of chiefdom from...and make a contribution to archaeology in that regard.

Now this paper primarily addresses three different regions, the Dallas area, Moundville a little, and passing comments on Moundville, Alabama, and Etowah so as such it's not expressly concerned with Lamar materials, but it does try to present some systematic framework for studying organizational variety in chiefdoms and hence that's germane to Lamar studies, and it outlines something of a methodology, which I think is useful to the delineation of any chiefdom structure. Now that methodology, in a sense, is outlined on pages 3 and 4. First, my concern was to, in kind of a classic 1970s style a la Peebles, Brown, etc., to try to deal with a substantial skeletal series from a number of sites within a region that are likely to represent different points along a political continuum from the centralized political center to a peripheral center and various examples of those in between. And to classify these different forms on the basis of certain attributes, such as artifact accompaniment, characteristics of the grave itself, and something that turned out to be very useful, in other words the location of the burial within any particular community--whether it was found in a central facility on top of the mound, or just outside the front door or on the apron of a mound, or in the near village or in the distant portion of the same village, but within the same site.

This is precisely the sort of work that has been reported on so often since the 70s and of course that American Antiquity Memoir of 1971, I think, Memoir on mortuary studies kind of pioneered that methodology, but since then there have been criticisms leveled at all of us that have done that kind of work as to what do you do with it now that you've got that taxonomy and you've demonstrated there are certain multiple levels apparently in the organizational structure of a particular community. What are you going to do with that? How can you independently verify that? And I think you can. I think you can learn something through that verification process. And that is by looking at what I sometimes call the consequences of being a member of a community that is organized in a certain way. If we acknowledge chiefdom variability, organizational variability in the Southeast, then the question is what advantages or disadvantages were there to being a member of any particular form of chiefdom structure in the Southeast. In
the process of giving up a certain amount of one's individual freedom, or having to pay tribute, or this sort of thing what are the advantages of being a member of a complex chiefdom? What are the negative aspects of it? And to an extent that is answerable by looking at certain aspects of lifestyles reflected on the skeletons themselves, again not looking at artifact accompaniments this time. That's already been done in the context of the original taxonomy. Now you utilize the taxonomy to look at things like differential life span between what you regard as analytically defined social classes, differential fertility, physical structural development of the individual, the disease load, stress, nutritional differences, this sort of thing. These then are independent measures of what I consider the consequences of living in one form of these societies or another. The paper then goes on to discuss in some detail the one that I've worked on myself over the years and that is the Dallas region, which was based on a piece of research that I began in 1972, wasn't it, I think, and has effectively ended as of this year.

Based on some 1284 skeletal records that I was able to secure from the McClung Museum some years ago, those records of those burials were from 19 different Dallas sites in eastern Tennessee. I immediately acknowledge the fact that the chronology in that area was and still is, it's better now, but certainly then it was grossly lacking, so we're talking about a long period of time, which ideally I would have been able to control, but obviously that was beyond my control. And for many of these sites then, I guess it still is, although I understand that you now feel like you've got at least ceramic markers that'll distinguish early and middle and late Dallas, which would be an interesting way to kind of segregate and stratify this sample here but it has not been done.

The first concern that I had was, again, the taxonomy, and the results of that taxonomic exercise are listed on page 6. Very briefly, what I found is what I consider to be a set of rules that governed mortuary treatment that we acknowledged, vis a vis Binford's arguments in 1971, should reflect certain aspects of social standing and social organization within these communities. So for example, you've got sub-adults--a certain rule that applied to sub-adults primarily was that they would tend to be buried with shell jewelry of various sorts with small columella beads and utilitarian ceramic containers. Now that's not all that they might be buried with, and they need not always be buried with both or even one. But there was a significant association between those items and those individuals, that class of individuals, sub-adults. Adult females, like the sub-adults, contained shell jewelry, and utilitarian pottery. Some females were buried with domestic utensils as well, like shell spoons.

I was struck by something that Dickie [Polhemus] has just pointed out, which is in these Toqua houses you've got, if you look inside the house, it's all adult women and sub-adult kids buried inside the house. The two identified adult males were both out the front door, right, so even at the household level much less a community or regional level, certain rules are applying to adult females and their children as opposed to the adult males in the same community. Unlike the adult females the grave goods for adult males are obviously dependent on their burial location and burial location here is simply distinguished between, for all facts and purposes, village and mound; mound or non-mound in the site. All adult males tended to be buried with one or more of the following things: pipes, ceramic or stone, wood working tools, and flint knapping tools--some aspect of the stone tool manufacturing tool kit...

END TAPE 7 SIDE 1
HATCH - ...their maleness in the act of the mortuary program itself is the symbolic aspects of the male side of that personality, but those males that were buried in the mounds also often had, in addition to those sorts of male-oriented things, specific things that were restricted to males in mounds, again, not all males in mounds, but many, and that was pigment--chunks of pigment--often faceted hematite, limonite, things like this that may have well been used in body painting and perhaps in somehow related to public ritual that they were central figures in the execution of. And then finally, there was a set of artifacts that didn't respond necessarily to any age or any sex group. But it did respond very sensitively to the location of the burial and that was essentially all the cult paraphernalia, which tended to be mound specific, not exclusively, but the vast majority again, was distributed more or less irrespective with respect to age and sex. Sure there were more adult males in the mound. There were also more adult males with more of this kind of material, but there certainly were sub-adults and women with this material as well. And we know through research over the past 40 years that we identify these cult items with concepts more or less universal in southeastern ideology related to socio-political status, ancestor worship, and forms of militarism. Of course these notions are of variable length.

SHAPIRO - Two minutes, Jim.

HATCH - Okay. The rules then governing the placement of grave furniture then applied here to this Dallas region, but also, in talking with Chris Peebles, looking at his research, clearly they apply at other areas of the Southeast as well, outside of the Dallas area. So there does seem to be kind of a set of rules with respect to mortuary program activities that typify much of the interior portion of the Southeast. Whether or not those same rules would apply in central Georgia, I don't know. Whether or not they apply to the southeast and coast, I know they don't. I've looked through a lot of that Savannah and later material and found that different categories of artifacts are being attributed to or were assigned to different age and sex categories. It's a totally different set of rules going on. Now in terms of then trying to do something with that in a sense social taxonomy, what I did is take a look at a number of what we might think of bio-archaeological dimensions to individuals' lives.

One is nutritional research and the other has to do with over all stress indicators that may or may not have anything to do with nutrition. From the generalized stress indicator's point of view you can look at stature, which in the case of many of these Dallas sites was surprisingly clearly linked with taller adult males as found in mounds as opposed to the villages, and in fact, in some sites, like the Dallas site, where the site was dug in this way, I could recognize the stature gradient going from the mound, to the apron of the mound, to the near village, to the far end of the village. Typically adult males averaged within those four groups represented a stature gradient going right down just a few centimeters, but it was a statistically important difference. You can look at x-rays of the long bones of some of these people and look at the cortical thickness as a measure of robusticity, and some say is a measure of their physical activity, their daily activity. And what we found their is that the adult males buried in the mounds seemed to have the smallest or the thinnest measures of cortical thickness implying that these people are in a more leisurely position, presumably, than the people that are out in the village that are more active somehow. And also Harris lines, which are lines of interrupted growth that are measures of a number of different things, perhaps nutritional, perhaps traumatic interruptions in the normal metabolic growth. Here
these can even be aged as to the year in the life when they formed, so that we can identify Harris lines that are traumatic interruptions that happened when a person's 1 year old right up to 16 years old, when the Harris line formation stops in any individual, and what I found there is that the individuals down in the village that had lines formed between 0 and 8 were, those lines were quite numerous compared to the individuals that were buried in the mounds, where lines formed between 0 and 8 were very rare.

Maybe the implication of that is the nutritional argument that the kids out in the village are differentially suffering nutritionally at the expense of support for those kids and families that eventually die and are put into the mounds in higher status positions. From the directly nutritionally point of view there are a couple of things, and I'll be quick. One is trace element analyses, which we've done--that argued that the nutritional consumption of those adults out in the village, the same adults that were loaded up with Harris lines when they were young, tends to emphasize those elements that we identify with a corn dominated diet or a vegetable dominated diet, whereas the trace elemental composition of the bones from the mounds in these Dallas regions tend to have a more balanced and presumably a meat rich diet. Independent confirmation of that comes from Arthur Bogan's research at Toqua, where he identifies not only more species of animals found in the middens associated with high status households, but even bones of better cuts of meat being associated with those households. So I think we've got some direct confirmation for a better diet in some of these Dallas high status households.

SHAPIRO - I have a quick question. Do you have any change through time?
HATCH - I can't control change through time.
SHAPIRO - I get the impression that the Dallas, based on the public architecture, is tremendous stability, and I think, Richard, you told me that some houses seem to be rebuilt in the same spot for centuries. Are...and that...
POLHEMUS - Quite frequently for the life of the site.
SHAPIRO - ...for the life of the site, hundreds of years, and I wonder if that stability would be reflected in the physical and biological attributes of the skeletal population.
HATCH - I don't know. It may be the ceramic, you know, approach that we're suggesting here is going to segregate that and carry out that research. The one thing that I do want to say in closing is that this pattern is very different from that at both Etowah and Moundville, and I build an argument here at the end of the paper along those lines, but basically what's been found by doing not identical, but rather similar sorts of research at Etowah and Moundville is that they do not find the source of high status, low status or mound and village distinctions in terms of stature, or trace elemental dietary differences, or some of the nutritional diseases like periotic hyperostosis, that sort of thing. They don't see the differences that you see in these rather small Dallas communities, small in comparison, and I think the argument I would make is that, assuming that these data are correct from these other sites, and that as I've sometimes heard that, for example, Blakely's research got involved in comparing mound materials in one phase and village materials from another phase, or something like this, but assuming that the similarity or the lack of distinction between high and low statuses communities is real, then it presumably reflects situations where, overall, people in these communities are better fed, less relatively traumatized than they are in the Dallas community. And I think that may well speak to the structural advantages that accrue to a large site that might in fact be structured more on the paramountcy level than we find it's
something that is a weaker, smaller, and potentially more kind of politically fragile, political system like we might find at Dallas.

**SHAPIRO** - That sure is the opposite of what you would intuitively think, you'd think there would be more inequality and a more hierarchical system.

**HATCH** - That was certainly my assumption going into it. And I had hoped that what we would find, just for example, in the Moundville material, is an exaggerated version of the Dallas. We do not at all and it implies one of two things. Either the real disparity is the people that are suffering in Dallas regions are people suffering out in the perimeter are within, but within the village. Whereas in the Moundville setting the people that may be nutritionally suffering are the ones of these outlying communities miles away that have never been done and we don't have any skeletal series.

**SHAPIRO** - Right.

**HATCH** - But an alternative is possible and that is that these major Mississippian centers afforded a sense of security that translated into more regular source of protein, and hunting territories and more security of in food procurement that they had a trickle down effect and positively affected these paramount villages.

**SHAPIRO** - Thank you Jim. I want to introduce Dorothy Humpf to continue our discussion on human biology.

**DOROTHY HUMPF** - Okay, you all have my paper so I'm going to make mine pretty brief. When I was going through what's known about Mississippian demography and human biology I found that a lot of what we know comes from skeletal series outside of the interior Southeast, and a lot of the work that's going on now concentrates on those areas. Clarke Larson's working on the Georgia coast, Mary Lucas Powell's work at Moundville, George Milner at Cahokia, and other works seems, except for Blakely's work at Etowah, much of what we know is from areas outside of the interior. So what I did is I took a framework that has been applied in a slightly different way in Missouri and went through that in my paper and what I tried to stress was that what I think is important is the way that these dimensions are integrated into the framework.

For example, you can use demography to look at mortality level and timing of mortality, but then you also want to know why people die, so you have to turn to another set of techniques to look at different diseases, nutritional stresses, nutritional states. And then you have to turn to another set of techniques, which I call mortuary program, to understand social differences that may have contributed to the differences in disease and differences in mortality levels. I think that that kind of approach for an area where, at least--I don't know of much work that's been done in the interior--I think that that kind of approach is what's needed either to compare sites, small skeletal series from sites spatially or to build up a temporal chronology, say pre-contact, post-contact, to see what's happening through time. Now I would like to work on a skeletal series, something on that level for a dissertation topic, and what I would like to ask people here is 'am I right in assuming that this data is available in some kind of shape that it can be used within this kind of framework?' I think that I am, but I'm not sure. For example, the series from Ocmulgee, David Wolff says there are 300 skeletons available from this site, but I don't know where they are, or in what kind of condition they are in.

**HATCH** - We have a phone number over here from a fellow at the Park Service office in Tallahassee that should give us a clue anyway. Any of you know the status of that Ocmulgee
material in Tallahassee or at the Smithsonian? There's a rumor that at least some of it's at the Smithsonian.

WILLIAMS - As I said, I don't remember seeing any of it when I was down there. There are some skeletal things from some sites. I mentioned Stubbs mound to you, and as I said you've got about 40 something burials there. Of the other sites that they dug in this area, Lamar mounds itself, I don't remember very many being present down there. They suffered badly over these years. And other areas? What about the Irene series, Chester?

DEPRATTER - Those are all in the Smithsonian.

ANDERSON - Mary Powell is looking at some right now, the Irene materials.

SHAPIRO - Is it that you just would like a sample from an interior group to contrast with some of the coastal studies?

HUMPF - Well, that's important, I think, because, you know, as I said, a lot of, well, most of these missions are sort of population specific, so you can't assume that what we know from the coast is going to hold true for the interior.

SHAPIRO - Or from one valley to the next...

HUMPF - Right.

SHAPIRO - ...in this area.

F. SCHNELL - There's a sample of about 40 some odd from the Bull Creek site, but they're not in that good a shape.

ANDERSON - Jim Rudolph, Dave Hally, and I have been very impressed with the potential of biological anthropological research, and we've explored this quite extensively with a sample of about 48 or so burials from the Beaverdam Creek Mound, and a sample of about 24 or 25 burials from a probable tributary village about 10 miles away, Rucker's Bottom--that's a sample of about 65 or 70 individuals that has been examined at some length, but there's a lot more that could be done with it. You might contact Blakely and Weaver, the primary investigators, about that. And that's interesting because there's been, with Mary Powell working with the Irene materials at a comparable time level at the mouth of the Savannah and with Clark Larson's work along the coast, you've got inland-coastal comparative samples, and we could begin looking at a number of questions.

SHAPIRO - You're probably going to have to excavate a large burial population to get a good sample that you can rely on, and if you were to take the time, it's going to be time intensive to do that, then you're free to pick which region has the most potential for answering your particular questions. And maybe you know already what some of your basic questions are, and some of the regions that researchers represent here might be more or less appropriate.

ANDERSON - Isn't there a number of burials recovered by Kelly at Mulberry a number of years ago, and then there were a number of burials from lesser Mississippian centers in the central Santee, Wateree drainage.

DEPRATTER - I've already talked to her about those.

ANDERSON - Okay.

DEPRATTER - We have those at South Carolina, but I think they're about parts of 40 individuals. I can't say how complete that materials is. Kelly dug it up in 1952, and it hasn't been curated very well.
WILLIAMS - One problem you're going to have with any of these collections that you find is if you're interested in looking at the grave goods which are associated with them, many of those have disappeared.

HUMPF - Yes, I looked over the Lamar report today, and I guess...

WILLIAMS - You may be able to find some bones, but you're going to have a lot of trouble finding the material goods that came with them.

HATCH - Even records of the original associations?

WILLIAMS - Yes.

SMITH - Of course the burials here at Ocmulgee would be two completely different populations. If Jim's right, some of these are intrusive people coming from Alabama are from the Chattahoochee.

J. KNIGHT - I believe that Mary Powell's worked up the Funeral Mound material last year, hasn't she.

ANDERSON - I'm not sure.

ELLIOIT - What about Etowah? What about the Etowah material?

HUMPF - Yes.

HATCH - Yes, to my knowledge, Blakely has or is...

WILLIAMS - I know a population, Dave, from the Avery mound. We've got about 50 or 60 burials from there and they've never been touched, TP64, and what...

G.SCHNELL - That's a good point.

WILLIAMS - What?

G.SCHNELL - That's a good point.

WILLIAMS - And they're in great shape!

SHAPIRO - Go for it!

[LAUGHTER]

WILLIAMS - I washed them all.

SHAPIRO - They're very clean.

G. SCHNELL - At least some of the burial associations are still able to be...

WILLIAMS - I would...some of them were in such good shape that the sesamoids are still on them.

HALLY - Avery is West Point Reservoir on the Chattahoochee.

HATCH - And that material is in Athens?

HALLY - Yes.

SHAPIRO - Dave are you ready to tell us about Mississippian mounds. Thank you Dorothy.

HALLY - I like to talk today about...don't turn them off, [lights] I've got to see to read. I think you could leave that back light on. That would be great for me. I need to get up to this screen. There's been a lot of discussion of Mississippian in the DeSoto period polities in the Southeast, and we talk...questions come up of origins and distribution...the size and shifting locations of these polities and so on. What we haven't really dealt with too much is reasons why these polities may have been located where they were at any one time, or at all times--the distribution through time. And that's kind of what I'd like...what I'm kind of dealing with for the past couple of months and want to do some more work with and want to present very preliminary results and some of them are unsatisfactory results today. Okay?
Of course it's long been proposed that there is a relationship between the quantity and quality of agricultural soils and the location of Mississippian mound sites. And that's pretty much what I'm working with as you can see from the abstract. I'm interested in knowing whether there's any relationship between the quantity and distribution of alluvial soils and the location distribution of Mississippian mound sites.

In Georgia north of the Fall Line, running approximately through here, we have about 40 mound sites that we can identify. They're in the site file records as belonging to the Mississippi period. And I suspect that that is the great majority of these mound sites. They tend to be clustered along the Fall Line, on the Savannah at Augusta, the Oconee and Ocmulgee, and really a large cluster over on the Chattahoochee, and even on the Flint River. And also up here of course at this valley, Ridge and Valley, Piedmont Blue Ridge ecotone. A whole series of sites at Etowah, for example, and of course the Little Egypt, Carter's Quarter cluster. Within the Piedmont itself, though, the mounds are many fewer, and they seem to be located as individual mounds, and they seem to be more widely separated. Okay, so what I'm interested in then is whether there is some, whether agricultural soil is—the best agricultural soil is alluvial bottomland soils—whether they are a determining factor at all in the location of chiefdoms and, another level, whether they are a determining factor in the location of the centers of these chiefdoms, the mound sites themselves. I have not really distinguished those two relationships too much so far.

Well, in order to deal with this question I thought that it would be nice to plot or measure the amount of agricultural alluvial soils along the major streams in the northern part of the state and then plot the mound sites as we know them and see how they relate, okay. Ken Carleton has aided me considerably in this. I'll mention a little bit more about my methods in just a minute, my techniques. The assumptions that I'm working on here are that the most heavily farmed or the best agricultural soils for Mississippian agricultural technology were the flood plain soils. Within the flood plains of the major rivers, the alluvial...the levees were easily tilled, well-drained, and their fertility presumably was renewed at least at some periodicity.

I'm not denying that there might be varying amounts of use of upland regions as well for swidden at various times, but I think the best soils, the soils that would support the densest populations would be the bottomland soils. Another assumption I'm making is that the area of flood plain as measured from the map tends to correlate with the amount of the levees along any stretch of the river. And it's really the levee soil that's being farmed. So in other words, if I give you a measure of flood plain width there's some relationship between that and the actual amount of good arable soil within that stretch of river. Another assumption I'm making is that the mound sites, the Mississippian mound sites are the political demo...economic and religious centers for the chiefdoms for Mississippian polities. And also the assumption that they are the demographic centers of these polities as well—that people will maybe tend to be located near the center geographical center of a polity. Certainly that there will be a large number of people in the general region of the mound site. That's another assumption I'm making. The rivers I eventually want to measure—I've already done most of the Chattahoochee. We're in the process of finishing up the Etowah-Coosa drainage, we've done the Savannah, just going down just below the Fall Line. We have yet to do the Oconee, the Ocmulgee, and the Flint River. And I guess that's all I'm going to do at this point.

It certainly needs to be extended elsewhere. Obviously the Georgia boundaries are very arbitrary, but that's the data I know best, and Chris and Chester and other people and Jim Knight
can extend this farther east and west if they want. Okay, what I've done is take the U.S.D.A. agricultural soil maps by county. Ken's task has been to glue these, has been to tape these together along the river, okay? And then his second task has been to identify, to color in the soils that are identified as first bottom and terrace soils. We distinguish between those two, okay? And then I come along with my handy ruler and pencil and draw a line along these rivers paralleling their course and then at half kilometer intervals at right angles to this line, making perpendicular lines across the rivers, and then with my little plastic ruler with a millimeter scale on it I measure the actual width of alluvial, the first bottom soils and terrace soils at these half kilometer intervals. It has been suggested on countless occasions that I use a ... SHAPIRO - Digitizer.

HALLY - ...digitizer, and that's definitely the way to go and computerize it, but I must say I've learned so much that I've made so many mistakes in this first attempt, and I'm glad I haven't done that yet because I'd a had to re-do it, so definitely that's the way to go, I think, to digitize it, and that would pro...I could do that with width or I could use a digitizer to actually measure area of flood plain. I think width is probably an accurate, in the long run, an accurate measure of amount of flood plain, and certainly it's quicker to take a width measurement than it is to go all the way around. Well, we can talk about it later, Gary says no. Push the button let's see the results of the first...wait a minute, go back, go back. So what we did, we started up here just above Helen where the Chattahoochee at that point is, you know hardly big enough for trout fish. That's pretty small. [LAUGHTER] SHAPIRO - Forget about living there.

HALLY - And we come down through, we stopped right here, so far stopped right here at the dam access for West Point. We're going to go down to just below Columbus, but I couldn't get that far for today and so I'm, I couldn't read your papers, because I was getting this stuff together and so on. Okay, let's see the next slide. It doesn't really matter if that's in focus or not [LAUGHTER] shift it over a little bit if you would. Can somebody just twist that a little bit. Yes, okay, we're starting at the--what we have above the line, this line right here, is bottomland soils below the line of the terrace soils, okay? This is the Mile 1, Kilometer 0, rather and this is the dam access at West Point. This is Fulton, Douglas County, so this is the Atlanta area here. This is the Lanier area and so on, and then this is the West Point dam area there. Now the results are not nearly as good as I would have liked. These calibrations here represent--what do they represent? 250 meters, 500 meters, 750 meters, 1000, 1200, and 1250 and so on. And of course you can't see it these are 25 kilometer intervals or 50 measurement intervals across here. We did a total of 200 and 560 measurements to this point.

Okay, there's some things that are kind of nice, and then I've located sites. Nacoochee, Eastwood, both in the Nacoochee Valley. FO16 is Summerour. FO5 is apparently the Thomas site; Standing Peachtree is FU1, FU10 rather, right there; DO1 is the Vandiver, Park, and Avery. These are Lamar. Vandiver is apparently Lamar. Standing Peachtree, we don't know what it is, and apparently there are no collections from there, but apparently is a platform mound. FO5 has never really been visited. I walked up, got lost trying to find it, but it sounds like it's a Mississippian site. [LAUGHTER] I forget why I decided that, but Dickens saw some sherds from that, some Lamar sherds. FO16 is Woodstock and maybe later and of course these are both Lamar and probably have Etowah components too. Mark you might notice the tendency for pairing along the river there, so, keep that in mind.
Okay, there are some interesting relationships here. Obviously, right here at the Nacoochee Valley you've got separated by quite a distance of fairly small amounts of flood plain, you've got a fair amount of flood plain for the--in the Nacoochee Valley--for those two sites. We've got a big batch of it right here at FO5. And then it kind of breaks down after those two examples. Two out of six gets pretty good. And then we have things like here a tremendous amount of flood plain here and no sites and then here is two sites and really not a, well, that's Do1, Douglas County, Vandiver, I guess that is, right on the edge, but this site, you know, looks like it's not that much, a whole lot of flood plain. Alright, there are a lot of problems. I think I can clear up a lot of this with a little bit of manipulation [LAUGHTER]. I say that to make you laugh. There are a lot problems and I think it might be instructive to review some of those problems, and then maybe you can give me some ideas later on. There are a lot of problems. For one thing you've got the reservoirs, and a lot of those reservoirs were built before the soil maps were made so...and then there are some counties for which there's no soil maps, like Harris County down in the West Point area, no soil maps, unless you go back to 1928 then you've got a real small scale map. How would I handle those areas?

Well, I used a combination of...on some of the soil maps you still have the river shown, and I drew in the soils based on using the stereo pairs at the library. And I feel pretty confident about that, because that's what the soil scientists used primarily, the stereo pairs, of the U.S.D.A. aerial photographs to identify these different soil types. There's not a whole lot of ground verification, I think, in what they do. I think there's a problem there with distinguishing terrace and first bottom soils, so I'm not very happy in that, but that's basically what I used in the reservoirs and in the counties without the soil maps was the stereo pairs. Another problem we ran into which was pretty easily solved, but a pain in the ass, is the fact that the soil maps are done at different scales. Can you imagine that? One of them, some of them are 1:20,000, some are done at 1:15,840 and it means you have got to measure both sides of the river separately and so on. That I solved pretty well, but it slowed things down. A third problem I think is the reliability of the soil identification on these maps. I need to talk to the soil scientists down at the Athens office cause apparently they--Jim you had told us, apparently they used primarily the stereo pairs, and they look at, you know, whether it's flat, and the elevation of it from the stereo pair, and how it's farmed. It's sort of circular I think you know, the way these soils are identified. You have anything to add to that Jim?

JIM RUDOLPH - That's how they identified the soil types was whether it was farmed.

HALLY - Yes. And there are some peculiar locations for some of the terrace soils. To me it couldn't possibly be alluvial terraces. They look like there's some erosional flat surface, but they probably have nothing to...they're not all alluvial. So there's probably some error in the soil maps, but you know you have got to use what you got.

KEN CARLETON - One thing is they also change. That's what I just encountered. One of the things starred that we've been, it's says, you know, everyone of them we've used so far says it's terrace, but I just got to one that says star is no longer terrace, it's bottomland.

HALLY - Yes.

SHAPIRO - I think you have to accept the possibility there's a lack of correlation between floodplain soils and mound sites as something instructive about the placement of the mound sites on a large scale, that there's some other factor.

HALLY - Am I'm finished?
SHAPIRO - ...I'm sorry.

HALLY - I can sum it up from here. Let me go ahead and finish this...

SHAPIRO - I'm sorry.

HALLY - No, you may be right. Okay, another problem of course is the soil types are given different names in every county, so you've got to have a list for each county. It's terrible. The two big problems I have, and it kind of accounts for a lot of the discrepancies on this map. One of them is how do you measure along the river? If one of them—if I had originally thought of measuring along each...you know, just running a line along the middle of the river and measuring at right angles to the river channel. But then you get to these points where you get these sharp ends and your lines of measurement are going to start overlapping and then you start measuring the same amount of floodplain two or three times, or do you, and how do you, what do you do in that case? So instead, my decision there was, instead of following the river accurately, was just to draw a line parallel to the river that followed the general course, and every time the general course of the river changed I'd change the line, but they comes along very seldom.

Now the problem with that is, you come to these points where the river's meandering very sharply like a series of s shaped curves, and some of your lines are going along the floodplain then, okay so you get a real great amount of floodplain, some of these are that for example, okay, so I've got that measurement problem I have to work out. The other thing I've yet to really deal with adequately, and it's not, is tributaries. There's some places where you get major streams coming in, there's major amounts of floodplain on those tributaries, okay. Alright, let me just go over briefly some of this chart and show you some of these problems okay, or show you how some of those problems affect my results. Okay, here we go, right here for example, what is not shown here is the Sautee Valley, which is about 100 miles north of the Nacoochee Valley and it almost doubles the amount of floodplain. Down here at TP49 it's located at the confluence of Yellow Jacket Creek and the Chattahoochee River, and there's a lot of floodplain along the Yellow Jacket Creek, the same with TP64, Maple Creek, and another one right across the river, which would significantly increase the amount of floodplain soil associated with those two sites. Okay, a lot of these peaks here and I do have them written out, but what the heck, a lot of these peaks are the result of that measurement error of the meandering stream. These are actual errors. I caught myself with some errors here, too late, so those should be reduced down, so a lot of these peaks are the result of measurement error. There are three sites that have considerable more floodplain than are shown on here. Now Jim Rudolph has suggested one thing I should do, and that is... I should, and it's quite apparent looking at this histogram that there is a general increase in the amount of floodplains, you've got as you go down the river. He suggested I get sort of an average amount of floodplain at larger intervals some sort of a what's the.

RUDOLPH - Running average?

SCARRY - You might try time series smoothing on that.

HALLY - Yes, there's noise.

SCARRY - You get a lot of noise that way.

HALLY - Trend surface analysis, something like that right, that would smooth that out. And then maybe what we're dealing with is not an absolute amount of floodplain that's critical, but the amount of floodplain relative to what's nearby.

SHAPIRO - Maybe you ought to take a standard radii around each of the mound centers.
HALLY - Well, that's another thing. Ultimately I'm going to do a catchment type of thing around each site.

SHAPIRO - Well, even extend them around down the course of the stream where you don't have sites, you see, so you get the continuance data for mounds that are absent.

HALLY - I think the histogram's instructive before we go on to some other things, like catchment or like these series of circles, yes. Gail? Yes?

G. SCHNELL - Oh, I was just going to say that on lower Chattahoochee you do see a lot of clustering of mound sites or large sites in the wide floodplain areas, and we have maps, pre-reservoir maps that you know show some of this. And we have a digitizer...Frank has a digitizer at the museum. You can come down and try it, but I think it would be pretty easy to show a correlation between the two and lots of alluvial bottoms even partly up some of the subsidiary creeks.

F. SCHNELL - I was just going to mention the problem with measurement problem loops in the river. Cartographers have developed some pretty sophisticated algorithms for taking care of that. How detailed are you going to be on the shorelines and so forth.

HALLY - Okay, I'll get with you about that.

WOOD - Let's back up a little bit, when you began this discussion you indicated that the best soils for aboriginal agriculture were the levees, which are composed primarily of fine sandy loams. The floodplains are vastly different. They're generally clay loams and silt loams which, are maybe good for aboriginal agriculture, I don't know, but certainly those fine sandy loams on the levees are the ones that are easily tilled, easily cleared, and more often renewed because of immediate bank overflow. Now, there is no correlation, as far as I know about rivers, between the amount of floodplain, the width of the floodplain, and the levee. There are sections up there where you have no floodplain, presumably, or very, very limited floodplain, and yet they will have extensive levee systems--very extensive levee systems. My familiarity with the rivers comes from being on them a lot. And we can go through some of the most narrow valleys in the north Georgia mountains or in the Oconee Valley for that matter--very restricted quote floodplains, and yet you have extensive systems of levee ridges right along both banks.

HALLY - Yes. Right. I agree with you but when you get to a place where it widens out, like Dyar, in aboriginal times that section of bottomland around Dyar probably had a lot of meander scars. Old channels and those channels each would have a levee, one levee on either side. Now you can see that in many parts of rivers, especially when you get just below the Fall Line where we get, when we yet to have that Trimbles.

WOOD - Yes, especially below the Fall Line, in fact...

HALLY - Yes, silting in.

WOOD - ...in fact I think you'll find that you have those meanders quite infrequently in the Piedmont...

HALLY - There's not an exact...there's not an exact correlation of that for sure, but...

WOOD - That's what bothers me about the soil surveys, they do not distinguish levee soils from 100 meters away where you have the clay silty loams that we walked through today, for instance. We walked through floodplain. Try and clear it. Try and cultivate that soil with a digging stick. I suspect you're going to have some difficulty.

HALLY - Well, I'm sure you know yourself, Dean, you're not dealing with an aboriginal situation. You're dealing with this Piedmont upland clays, that you know is terrible.
WOOD - Well, I think those Piedmont, those clays have been there in that floodplain. I mean if you go, you've got the last 300 years. Below that I don't think the soils are going to be that vastly different.

WILLIAMS - They are at Scull Shoals.

SMITH - Sure was at Dyar.

WOOD - In some places.

HALLY - At Dyar underneath...

WOOD - At Dyar they weren't though.

HALLY - ... underneat the levee, underneat the rises, the...

WILLIAMS - At Scull Shoals it's alluvial under all that clay.

WOOD - Not always. Now the reason at Dyar and Scull Shoals is because those sites are probably where those best soils are, but then many places where we did deep testing along the Oconee...

WILLIAMS - Where is Jerald? Is he gone?

WOOD - ...we, yes, we did not really get down to good soils always in the floodplain. Now the levee ridges consistently had the wonderful soils.

ANDERSON - At Ruckers we did a very extensive geo-archaeological analysis from the levee crest all the way across the floodplain, and what you're saying is exactly true with me. You have a very coarse matrix at the levee crest, but when you get down away from the levee crest you get into increasingly fine particle concentrations, which are just a bitch to dig, much less farm. I can't imagine anybody...they're not farmed today...I can't imagine how they were farmed aboriginally.

WOOD - Yes, I've just, I've always thought that the best soils are those linear strips. Now you had a good point there when you say in the floodplains, in the very wide floodplains, particularly in the Coastal Plain you'll find these strips meandering all around in the quote floodplain, but I think particularly in the Piedmont.

HALLY - But you can't see them in the Piedmont today. I think what's going on at Dyar, you can't see any levees in the Dyar bottomland especially today, when we dug the site, and yet the site apparently, the mound was located on the levee. It was totally covered, and it didn't at all conform to the direction of the river today. I think that bottom would have a certain amount of...could have had a certain amount of abandoned channels. It's a problem. I'm just trying to make...

WOOD - I'm just trying to think of some way you can measure the levees themselves. The soil surveys, they're just not going to do it. They're magic, those people have...they're magic.

SHAPIRO - Okay, let's go.

JOHN WHATLEY - Well, the thing that hasn't been mentioned that always comes up in river sediment discussions is that clearing of the timber in the Piedmont due to European agriculture greatly changed the amount of sediment that was deposited in the rivers in the Coastal Plain. Now I don't know how that would effect what you're doing Dave, but since it hasn't been mentioned.

HALLY - Right, well, actually we were just talking about it. I think it's obscured any natural river features or tended to obscure the aboriginal river features.

WHATLEY - Well, if you had an area where the depth of sediment due to the topological features was where the sediment was deposited as opposed to a shallower sediment, where it would fan out it could kind of effect your data, compared to the prehistoric period.
HALLY - Okay, well at any rate, I'm sure it's time to finish. I'm going to try to clean this up, and I'm going to—we'll probably finish the Etowah and the Savannah, and we'll either learn that there is no relationship or that there is some. And I think we'll learn it's a rather complex relationship.

SHAPIRO - We'll take a 15 minute break at this point.

HUDSON - Do these things tend to occur at tributaries?

HALLY - Yes.

END TAPE 7, SIDE 2
BEGIN TAPE 8, SIDE 1

SHAPIRO - Okay, everyone, we have four more presentations to make this afternoon, and I would like also to take about 20 minutes, at least 10 minutes, at the very end to talk about our options for publication and what everyone feels about the appropriate way to go about publishing the results—the appropriate format, and any suggestions for how we might accomplish that goal. But we have a lot of enlightenment before we reach that, and I'd like to introduce Roger Nance to begin a string of ecologically oriented studies.

ROGER NANCE - Okay, thanks, Gary. First of all, I'd like to just say thanks to LAMAR Institute for this great conference here, and it's really been enjoyable, and seeing the mother Lamar site there was something else.

SHAPIRO - It's a mother.

ROGER NANCE - Okay, thanks, Gary. First of all, I'd like to just say thanks to LAMAR Institute for this great conference here, and it's really been enjoyable, and seeing the mother Lamar site there was something else.

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SHAPIRO - It's a mother.

[LAUGHTER]

ROGER NANCE - Yes. You all have copies of the paper, and since it's late and we're all tired, I will not read the paper, but I'd just like to make a few comments about the research that went into this and the thinking behind the paper sort of. I've dug one Lamar site in my life, and you guys talk about these things like it's sort of a matter of fact enterprise, and I don't know if I'll ever tackle one of them again, because they are plenty rough to deal with. But at any rate, this one site is located on a floodplain of Talledega Creek in the middle Coosa Valley. Talledega Creek is a tributary of the Coosa River right where the creek flows out of the Piedmont into the Ridge and Valley province. So it's another one of these sites on the edge of the Piedmont, the same ecotone that we've been talking about all afternoon. And I was interested in what resources the Piedmont had at that point that would have determined the location of this site at that position. In other words, there was plenty of floodplain downstream where these people could have put their village.

Why up against the Piedmont? Well, if there had been hardwood trees in the Piedmont there I don't think I ever would have paid much attention to the issue, because we all know that hardwood trees have nuts, and the deer eat nuts, and there I would have opted for the party line probably, and not thought to much about it. But to my chagrin there were pine trees there. And I couldn't understand what a pine forest would really contribute to the economy. So I called down to Auburn University and set up a meeting with some animal ecologists down there, and they were very helpful; as a matter of fact, about eight of the people in the Department of Entomology and Zoology met with me for about an hour, and I put the same question to them. I said well, why, why? What's in the Piedmont at this point that would determine this site location? And they said well, you know, what do you know about pine forests and what do you know about fire? And the fact that the pine forest in this area is not a climax type of vegetation. It's really maintained
through periodic burning. As a matter of fact, the Long Leaf pine forest, to be maintained at all, has to be burned over about once every 2 years.

So this was all news to me, and they told me about a book that...I don't know how many of you have had a chance to read this but it's entitled "Prescribed Fire and Wildlife in Southern Forests" edited by Gene Wood. And it's a whole collection of papers on the effects of forest fires on animals, from birds, small mammals, and deer. And the very interesting paper that started this symposium was delivered by an ecologist named Edward Kormareck in which he talks about the history of burning southern forests, and he points out that, at least as far as he can tell, that the Indians taught the earliest settlers in the South to practice controlled burning in order to promote the quail populations. And that this was continued right down into the twentieth century. And then he talks about the...what he called the period of the "Dixie Crusaders," or the southern forestry education project when the federal government decided that controlled burning was just being done by maniacs, and this sort of started the whole Smokey the Bear idea that all fire is evil. And it got to the point where ecologists working in the South couldn't even publish their research talking about the benefits of forest fires for quail and other species. These guys would send their papers in, and the editors would delete long sections that had to do with the benefits of fire, sort of like being a pebble-tool archaeologist, you know. [LAUGHTER]--not real good.

So, finally, in the 1960s, the Forest Service decided that burning really was beneficial and that it promotes these habitats. And today, the Forest Service itself burns about 3 million acres of U. S. forest every year in order to promote populations of game. Well, at the same time I became aware of this study, I read William Cronin's book on New England ecology and settlers and Indian relations in New England. And he has ample evidence that New England Indians were burning the forest all the time in order to, you know, promote hunting. And as a matter of fact, this was one reason, this was one rationale that the settlers used when they took land away from the Indians. They said these Indians don't know what they're doing. They're out burning the woods, and obviously they don't know how to make good use of the land so we'll take it away from them and farm there.

So putting two and two together it looks like that deliberate controlled burning might have been pretty important at least in some areas of the South, and particularly in the area where I'm working because of the very fact that the Long Leaf pine is the most resistant of any to fire of any pine species. So, in other words, the kind of habitat you get where you have these pine trees is a kind of open pine forest with a lot of new vegetation that springs up every year, because there's a lot of space between the trees--a lot of young plants. These open areas between the trees support berries, young plants that feed birds, and, especially when you're on an ecotone. The quail and the deer can move back and forth from these open pine forests in the hills in the spring and summer and go down into the hardwood bottoms to feed on nuts and, you know, regular hard mast that would be there. So the animals, in other words, are migrating back and forth between these two environments. So that is sort of the message here, really.

I don't know how many of you have thought about deliberate burning or the role of or the importance of accidental burning and maintaining prehistoric habitats, but something we have to be aware of, as the authors of this book point out, is that hardwood forest is gradually replacing pine throughout the South so that environments change, but looking back at witness tree--the witness tree study that Greg Waselkov did in central Alabama--it looks like there were more pines in this area in the nineteenth century. And the early botanical studies of Alabama show that the
forest of the Piedmont there was Long Leaf pine before the twentieth century, so it looks like this
type of forest has been around there a long time.

**ANDERSON** - There are palynological records that indicate that pine was replacing hardwoods
by the early to middle part of the Holocene. Ken Sassaman has been looking at controlled
burning in an Archaic context. I think we need to realize that these populations were quite well in
tune with their environment, and that the manipulation of their environment might have
considerable antiquity, not only here, but in large areas of the world. People have looked at this
problem, Lewis is California for example, so I'm in agreement with what you're saying, and we
ought to think not just in terms of Mississippian systems, but look at the possibility that this might
have considerable antiquity.

**SHAPIRO** - Is there any potential in your region for dating the predominance of pine when that
starts, back then? Have there been pollen studies from that area?

**NANCE** - Not right there, no.

**SHAPIRO** - Maybe there's a potential for that. That would seem to be pretty important.

**NANCE** - The, you know, the forest fires will maintain the pine forest it looks like, to some, you
know, to a large extent. And of course, the hardwoods moved in when people started putting out
the forest fires. Hardwoods are the climax vegetation. If they're allowed to take over they'll do
so.

**WILLIAMS** - Yes, what I was talking about earlier about firewood use, I think they'd be crazy to
burn forests too close to their town because they'd be burning their own potential heating and
building materials.

**NANCE** - Sure.

**HATCH** - That's, that's...

**WILLIAMS** - Whatever the question too close is.

**WOOD** - No, you're not really burning the trees you're burning the brush.

**WILLIAMS** - Well, but a lot of that is fallen limbs and stuff.

**GARROW** - Mark, you have to remember that if the understory is kept down by frequent burning,
you don't have enough fuel mass under there to really catch the forest on fire. It's when you stop
burning for a number of years that the understory builds, is when you can have real problems.

**ELLIOTT** - It's safer to burn regularly and its easier.

**SCARRY** - They're burning on I-75 south of town here, and they're just going up and down...

**SHAPIRO** - Jim was just telling me about some studies where foresters...is it?

**RUDOLPH** - It's dendro people ...?... that tree rings give an indication of burning from tree rings.
I'm not sure what the indications are, but they can look at, with the dendro dates, the frequency of
forest fires in various area of the time.

**HATCH** - It's actual charring isn't it?

**RUDOLPH** - I'm not...I don't know.

**HATCH** - I think it is.

**G. SCHNELL** - There's a...

**RUDOLPH** - But I was going to say is even though we can't do dendro dating here, we
could...there might be the potential for looking at charred posts or something for information of
frequency of burning.

**G. SCHNELL** - Down in the Ocmulgee, not in the Ocmulgee, in the Okefenokee there's a good
sequence of pollen studies with Carbon-14 dating that helped and that's, course, what...for a long
time we didn't have a lot of Carbon-14 dates to go along with our sequences, but that one does, which is good because of all the vegetative material we've collected is very easy to date. And so at least those of you who are down in southeast Georgia have something to go by.

NANCE - I guess one question I have for everybody here, does anybody know of any ethnohistorical sources that talk about this kind of burning for the South. There's plenty of evidence for the...

SHAPIRO - Absolutely.

HUDSON - It's scattered, it's real scattered literature, but it's there.

JONES - The Apalachee did, particularly, and it's well documented.

SHAPIRO - We have their name for it.

? - What?

SHAPIRO - mehumellas? is what they called it, and it was every winter, and it was a communal job.

JONES - It was combined with chasing out the animals at the same time...knock them off...?

SHAPIRO - Right, they did use fire to eat.

SMITH - Fire drives.

GARROW - There's information from Virginia as well. There's some information available for Virginia.

NANCE - For what?

GARROW - for the Virginia Indians, the Coastal Plain Indians.

JONES - I'd like to say something about dendrochronology. I'm surprised that we haven't made some advances in that area. Knowing all the problems with dendrochronology here in the Southeast, it's hard. It's a long road, but after growing up with ...?..., I think we could push it back to Lamar times, at least, the ending of Lamar. There's that possibility on a regional basis.

WILLIAMS - Well, what are we going to compare it to? We don't have any...Dick how many trees did you get from you're burned houses you could have gotten compared to a master chart had there been one? Some...

POLHEMUS - It would depend on the structure type. A lot of the earlier Mississippian size structures or members are really so small that you wouldn't get enough span probably out of them, but more rigid later structures, especially main roof supports, you could get, I think, a substantial number of samples if you made the effort.

JONES - That and archaeomagnetic dates too.

ANDERSON - There's a paper by Dan Wolfman and Dave Staley in the Schiffer Advances in Method and Theory volume that came out a year or two ago that talks about the potential for dendrochronological research in the Eastern Woodlands, and Dan Wolfman of course have been working with archaeomagnetic dating in this region pretty well, particularly about the Mississippi Valley area for some time. So there are people that are working on it. And one thing that I would urge is people here that we've all excavated Mississippian sites where we find burned hearth areas or burned clay areas. It might be good, I don't know if locally we have the expertise to take the samples, but it might be good if we had a few people trained up locally who could take the archaeomag samples, because the way you build the curve is by taking the samples. And right now it's very difficult to do that, as I understand it, in this area. But if we had the people we could start taking the samples, start processing them, start building a curve, and maybe in 20 years or 10 years we'd have the information.
WOOD - There was an attempt at that in Wallace. George Brook ran around doing it. I don't know whatever became of it and the things he does.
JONES - We did it about 12 years ago too. There was a bunch from Apalachee, but we don't know how they fit on the curve yet.
WOOD - Yes.
POLHEMUS - Well, taking the samples is no real big sweat. Getting the results from certain individuals is. We had over 100 sets of cubes from the Toqua site, including paired sample sets from the hearths from each pair of these buildings we had in the mound. The key ones, all the ones where there was a pair that would be absolutely identical in time both destruction of the building, destruction of the building, we have not gotten from Oklahoma.
ANDERSON - Dubois. Well, you have to turn on a local physicist, I mean, or you have to talk to Dan Wolfman at length about it. I mean that's...
SCARRY - Dan...regarding the generation of a curve, didn't Dan find that the southwestern curve was not a bad approximation for Arkansas.
ANDERSON - Right, it isn't a bad approximation, and what we need to do is have enough samples from this area to see how much of a calibration we might have to make.
SCARRY - Well, instead of getting, you know 1400 A.D. plus or minus 80 using 1400 A.D. plus or minus 30 or 40 is still better than what we can do...
ANDERSON - with radiocarbon dating?
SCARRY - with radiocarbon dating.
WILLIAMS - We need an Archaeomagnetic Institute.
HALLY - I took burned posts from the King site and soaked them in paraffin and everything as Don Graybill told me because I had hoped to be able to date the burning of various structures there, at least an internal chronology, and he looked at them when I got them back and he said 'those are no good.'
[LAUGHTER]
SHAPIRO - You'll just have to take his word.
HALLY - I've still got them. Yes. Right. I think he just lost interest in the project. I've still got them.
ANDERSON - Well, maybe the LAMAR Institute could see to it that somebody...
WILLIAMS - No, that's the Archaeomagnetic Institute.
[LAUGHTER]
SHAPIRO - Right, that's another institute.
WOOD - Going back to dendro. There was an attempt, maybe I'm wrong, I thought it was in Macon? during the...
F. SCHNELL - It wasn't Willey?
SHAPIRO - Yes, there was.
SCARRY? - Who was that that did that?
WILLIAMS - Gordon.
WOOD - Well, there was some woman that was working on it.
SHAPIRO - No, it was a female, there was a photograph of Willey with a machine.
POLHEMUS - Of course, Holly did...
WOOD - That's it, Holly, yes.
POLHEMUS - TVA supplied $5,000 to do materials from the Tennessee Valley.
WOOD - They took old log cabins and old...
JONES - They took ...?... out of the river, you know.
WILLIAMS - But it was all killed years ago because everybody said there was too much variation from one valley to another. You don't believe that?
JONES - I said for the certain region.
WILLIAMS - How big is a region? I got the impression that 15 miles was a region.
JONES - Fifteen is kind of little.
SHAPIRO - I'm going to bring us back to the human ecology stuff here and go ahead and introduce myself to talk about Mississippian societies in non-Mississippian environments. I think that Swanton was right on the money in recognizing that for most southeastern Indian groups there seems to be a yearly round of subsistence with summertime being the time for raising crops and fishing and wintertime a concentration on hunting. And those observations, I think, apply over a very broad geographic area based on that partially and based on archaeological evidence. Bruce Smith generated his model for the middle Mississippi Valley and Mississippian settlements to talk about the adaptive niche Mississippian populations, and, as we all know, he puts them in the floodplain, as people have for years, with the best growing soils. But the other component to his model is access to aquatic resources during the summer months with the idea that during the summertime you're somewhat tied to your agricultural fields, and to have a source of protein you need to have them in a predictable location, and fish certainly serve that bill if you have a rich fishing area. So in the floodplain, oxbow lakes and good floodplain soils are right next to each other.

I've found that taking what I consider to be the skeleton of his model--access to good soils and aquatic resources--and applying it to regions that are environmentally very different than the middle Mississippi Valley has helped me understand at least a few aspects of settlement in those regions and to do so you want to take into account the basic aspect of Mississippian societies that are based on agriculture, and you want to take in the account some environmental differences between the middle Mississippi Valley and which ever region. So I'm going to talk briefly about two regions. The first is the Georgia Piedmont, where riverine geomorphology is very different than riverine geomorphology in the middle Mississippi Valley. And I think Dave's graph showed it very well. The characteristic shape of Piedmont rivers is that they start out...they have segments of floodplain that are pinched off from time to time by shoals where the river flows over some rapids, some nick points.

So you'll have a...there's a name for this they called them Boudin valleys. But in an exaggerated sense, and you'll see this in Jim's paper, there's a relatively wide floodplain, and then the river will have some shoals in here with very little floodplain, and then later it will fan out and once again you'll have some floodplain to pinch off again. And I thought Dave's graph showed that really nicely, the pinching off of floodplain. What that means is you don't have the development of broad meander belts in the Piedmont. You do have some meandering where the floodplain is broad, but you don't have enough to create the sinuous curve and the changes in the channel that create oxbow lakes. The oxbow lakes in the middle Mississippi Valley are missing.

So that in the Piedmont you have to look elsewhere for your reliable source of warm season protein. And you can do it because aquatic resources are also found in predictable locations in the Piedmont, but at the rapids. And there are a number of energetic reasons that rapids are highly productive. They've got a lot of fish. They've got shell fish and turtles and so on. But the
interesting feature of all this is that your best floodplain soils are not continuous with your aquatic resources. The shoals and the bottomlands are separated sometimes by some distance. When they are then you can expect to have a proliferation of extractive sites, places where people would leave their farmstead or where ever they're farming. Maybe they're farming in the uplands, too, and in the floodplain away from the shoals, and periodically visit the shoals, maybe for a couple of weeks at the time, to gather aquatic resources, eat some while they are there, take some back and so on.

That particular scenario is somewhat borrowed from some of the Amazonian agricultural groups that do that for periods of time during the growing season. We certainly have demonstrated the occurrence of these extractive aquatic resources sites in the Wallace reservoir area, the Oconee. I excavated one and many, probably hundreds of them, were located by survey that probably are also clearly extractive sites--shell middens, and I think they reflect something about Mississippian strategy of life, but in a non-Mississippian kind of setting away from these broad floodplains. You can expect to find another kind of site down by the rapids because there are small pockets of floodplain adjacent to shoals, but in small patches. You wouldn't put a village on it. But you might have a farmstead. There might be a few families that could stay there year around and enjoy the access to aquatic resources and some good soils right there at the shoals. But the bulk of your population probably would not live down there on a permanent basis, and we have an example, at least, of a small site that was probably a farmstead. Unlike the farmsteads we knew from the Mississippi Valley, I don't think it was occupied on a year around basis. I think the fauna argues that it was mainly a warm season habitation, and I don't know where they went for the rest of the year. Think about that. But I want to move...

WILLIAMS - Shoulderbone.

SHAPIRO - They went to Shoulderbone, that's it, where they don't have any floodplain. I want to move away from the Piedmont to briefly talk about the region I'm just starting to learn a little bit about, the Apalachee region. And here again there are some insights provided by a difference in riverine geomorphology in north Florida compared with that in the middle Mississippi Valley. The kinds of rivers we're talking about with excellent horticultural soils are all alluvial streams. They're all drainages for large areas of uplands, so a lot of mineral nutrients and silt are washed down in the river, and that, of course, is, when it floods, that's what renews all the soil and creates the levees. In Florida the rivers do not originate as big drainage bases. They mainly originate from the underground aquifers in the form of springs, or they originate as tannic cypress swamps at the heads of rivers. They don't bear large loads of silt. And you wind up with riverine flood plains. They're shape is very different, but they're relatively impoverished in terms of the capacity of the soil for growing crops. And depending on the kind of Florida river you're talking about, whether it's spring fed, and near the coast, or whether it's swamp fed and inland, there is also a tremendous difference in the amount of aquatic resources available in those streams.

Well, in the broadest pattern, I think that the unsuitability of north Florida rivers for agriculture leads to a pattern that we see in the ethnohistoric accounts of boundaries between polities that not infrequently coincide with rivers, and they coincide with these black-water rivers that are pretty impoverished in terms of aquatic resources, and, of course, all the rivers are lousy places to farm. So your populations of corn-growing chieftdoms in north Florida are concentrated in inter-riverine areas, and rivers are more likely to be buffers, excuse me, boundaries between polities. What I find attractive about this is it is a complete reversal of the situation we have
through the rest of the Southeast. Everywhere else in the Southeast people have rivers at the heart of their society, and you get into north Florida and rivers are more likely boundaries. They're farming the uplands in between, and they didn't farm all the uplands in between, and they didn't even farm all the ones with best soils I'll bet, although we don't have the survey data for this. I'll bet that they mainly occupied areas in which uplands are interspersed with lakes that provide aquatic resources. And here we have the typical Mississippian model that in north Florida, a real different environment. I say this based on the known historical boundaries of Apalachee.

The Apalachee province is bounded by the Aucilla River on the east, the Ocklocknee River on the west, and it is an unusual region in the number of lakes and large lakes that are interspersed in the Tallahassee hills, which are the best horticultural soils. When you move north or west of Apalachee you have the same soil type as Orangeburg Fine Sandy Loam. You have the same soil type, but you don't have the lakes, and you also don't have the Apalachee population as you go north and south of a particular lake basin, Lake Iamonia Basin, north and west.

So I found it interesting, anyway, to stretch these environmental models to places where they don't fit to try and understand why they don't fit to get a little bit of insight. I think that most of the insight that you get has more to do with daily life than it does with regional concerns, except that in Florida where you have the boundary situation. It's kind of interesting. And that's my presentation. Yes.

F. SCHNELL - I'd like to inject another anomaly in this, and that I haven't figured out yet, and that is the lower Chattahoochee River is a geomorphological anomaly, and this it flows down the middle of a ridge, which extends down into the Coastal Plain. What this means is that the river is deeply entrenched. It means that there are oxbow lakes in the first, let's say 7 or 8, 10 miles below the Fall Line. Once you get below the Fall Line there are no more lakes, there are no still water ponds.

SHAPIRO - Is that right?

F. SCHNELL - No resources of any, of that sort, and of course the Rood's site, which is the biggest Mississippian site in that region is right in the middle of that no-still water resource. So I don't know what the situation is.

SHAPIRO - What are the best soils?

F. SCHNELL - And obviously no rapids or anything.

SHAPIRO - Right. Mark.

WILLIAMS - How wide is the floodplain?

F. SCHNELL - Pretty wide.

SHAPIRO - Well, that's the draw. Then we have to find what the protein source is, if they're going to fit the model.

F. SCHNELL - Right.

WILLIAMS - Can you grow enough corn to last you?

G. SCHNELL - It's an area rich in deer, too.

F. SCHNELL - Of course, you can double crop down there. Now that might have something to do with it. You're far enough south for that sort of thing.

WILLIAMS - I'm saying, you know, can you grow enough and store enough corn if you've got enough floodplain to last from November until June?

SHAPIRO - Yes.
HALLY - Gary, within the Piedmont there's a least one situation, I think, which is different from what we saw in the Oconee, and that's Rembert, which is a huge area of floodplain, and it's, you know, right there at Trotter's shoals. You could go from the Rembert Mound to the Trotter's Shoals. It's something like 8 or 9 miles or so, 4 or 5 miles of shoals, you know it's less than 1/2 mile away.

SHAPIRO - Right.

HALLY - So there's some places where it's going to widen out where the two will be close together.

SHAPIRO - Well, you could get both shoals and some floodplain in a short distance, that's what Beaverdam is like, too, which is excellent, I mean, you know. Then the settlement is exactly where it should be, and, as Jim will prove me wrong by say...you know there's no small sites there.

RUDOLPH - ...?

[LAUGHTER]

F. SCHNELL - This is a little bit off the subject, but back toward my problem. I was impressed again at the Lamar site. The Neisler site, the Lamar site, mound sites on the Oconee, so often these are in these low bottomland where you can walk along and see the flood line on the trees and so forth. You never see that along the Chattahoochee anywhere. Does it occur? I don't know anything about the Savannah. What is the Savannah like. Does it have a lot of...

WOOD - It's got a steep gradient.

F. SCHNELL - ...alluvial swamp land south of the Fall Line?

WOOD - No. Oh. South of the Fall Line?

ANDERSON - South of the line, yes, it's got a lot.

WOOD - Yes.

F. SCHNELL - Well there is practically no swamp land south of the Fall Line on the Chattahoochee.

WOOD - It's probably the gradient.

? - gradient river. Floods just peushh!

G. SCHNELL - I suspect the clay, because it gets...it's hard to cut through and, consequently, in a lot of places the river just entrenches itself, and it's too difficult for the river to make a lot of floodplain in some of the--at least it's too difficult to make swampy floodplain.

F. SCHNELL - Well, it's difficult for it to meander.

G. SCHNELL - It's got floodplain, but it's, yes, it's difficult for it...you get meanders right around Columbus, but that's the last place where you have good shoals, too, and we do have big sites.

SHAPIRO - I think that the shoals are a long neglected part of this Fall Line settlement model that you know, years. I guess Larson's the one who voiced it--that there seems to be these large settlements along the Fall Line, probably because it's an ecotone between this and that, but I think it happens to be that you've got shoals, excellent shoals, on the Fall Line, and that where the rivers really begin to meander.

HALLY - ...we know damn well, there's meandering in there.

[MANY PEOPLE ARE TALKING AMONGST THEMSELVES HERE]

SHAPIRO - There's one other source of variability I'd like to mention and then we'll introduce Jim Rudolph. That is, within Florida there's a real difference in the ability of certain types of rivers to support aquatic life, and the richest kind are the ones that come directly out of clear water springs and flow directly into the estuary. These are rivers that serve as a refuge for saltwater species.
during the winter time. They also have characteristics of estuaries in that they've got fresh and salt water species together, and you have the ability to support chiefdoms that are more like your coastal chiefdoms that rely extensively on aquatic resources throughout a long period of the year instead of just the summer months, and the most famous example is the St. Johns River, which was densely populated even in Archaic times, but it also held chiefdom level societies all the way through in Florida pre-history, and the other example, the other famous example is the Crystal River site. Crystal River is a clear water spring that empties right into the Gulf.

G. SCHNELL - This is kind of right off the top of my head, but it strikes me, because we do have this mixture, there are known examples of Indians fishing for saltwater or freshwater, both--mammals, mammalian hunting, and this provides an extra food source on a large scale when you get it.

SHAPIRO - The St. Johns and Crystal River are the two places people go nowadays to see manatees in Florida. With that I'd like to introduce Jim Rudolph.

[LAUGHTER]

RUDOLPH - Okay, two pages you should refer to in the paper. Each of you should have a copy. One of them is Page 5 and the other is Page 7. They're maps of the Wallace and Russell Reservoirs showing the distribution of floodplain soils and the distribution of shoals, which don't show up very well in the reduction, but they're the little dots you see within the rivers. I'll just briefly go over some of this. When I was working on writing the Beaverdam Creek report, David Hally and I were working on the Beaverdam Creek report, I was interested in applying Gary's model of Mississippian settlement from the Wallace Reservoir to the Beaverdam situation, and it didn't quite seem to fit. I felt that I had less evidence of aquatic resources turning up even though the site was very close to shoals. It was, I don't remember the exact measurement, it was less than 3 kilometers. Since then there's been some disagreement over this. Gary and I were talking this morning about it, and he feels that if you use bone counts by species that the differences I saw would disappear, while I was using MNI and well, mainly MNI bone weights and so forth. Right now there's no way to compare it here, so as soon as I get home I'll look it up in Gary's dissertation and prove myself right. [LAUGHTER] So just take that now in mind that I'm trying to explain the difference, even though the difference, there's some disagreement whether there is a difference.

Okay, first of all I just want to illustrate some of the environmental differences, just go over some of them. Okay, the Oconee River in the Wallace Reservoir area is a smaller river than the Savannah. It's usually about 30 to 60 meters wide, while, and then let's see the discharge estimated from Hall and Hall in 1908, their book on the Water Powers of Georgia. The discharge of the Oconee at the Fall Line is 1800 second-feet. If you look at the Savannah in the Russell Reservoir area it's usually 140 to 200 meters wide. This is the river itself. And at the Fall Line the discharge is, at the turn of the century was 11,425 second-feet, which is over six times the discharge of the Oconee. So it's a much larger river than the Oconee. Also it's more deeply entrenched. It drains parts of the Blue Ridge Mountains, so it starts at a higher elevation, while the Oconee drains the upper Piedmont, so you're starting at a lower elevation, so there's less entrenchment going on.

Okay, in terms of the floodplain, as you can see on the map, the Oconee has really extensive floodplains, much broader than what you get in the Savannah. In the Savannah you find that it's much more patchily distributed, much, much narrower, while the Oconee is much broader. I don't have the exact measurements right now. I'm going to wait for Dave Hally to finish all his
work before I worry about that. One of the things that Gary pointed out was that...(comment by Dave Hally?) What? One of the things Gary pointed out was that the shoals and floodplain were not directly associated in the Oconee Valley because of what a Boudin valley? That's a Cajun pronunciation.

SHAPIRO - Boudin.

RUDOLPH - Boudin, that's a Cajun pronunciation. I'm not sure...

WILLIAMS - How do you spell it?

RUDOLPH & SHAPIRO - B - o - u - d - i - n!

WILLIAMS - Thank you.

RUDOLPH - I don't know whether it's French or German or what. But it means, it refers to a link sausage, [LAUGHTER] so it's like he said you've got these fat areas of floodplain pinched off at the links. If you look at the...and this fits pretty well, or it fits very well for the Oconee valley where you get these shoals at the extreme southern end of the reservoir where the most extensive shoals are down there, and very little floodplain. If you look at the Savannah throughout the area you have very little floodplain compared to the Oconee, but where you get the most extensive floodplain, which is at the southern or just above the southern end where you have Rocky River coming in from South Carolina side, Beavermad Creek coming in from the Georgia side, and also several islands, you have some of the most extensive floodplain in the area, and you also have the shoals right there.

Now as Dave mentioned, just below the dam you also get the broad floodplain where Rembert is found. I don't have that on the map obviously. It's not as broad as the floodplain in the Oconee, but it is broad, much broader than what you get farther north here. Okay, now, near the shoals in the Oconee, very close to the shoals or just within a short distance is where you get most of the shell middens found in the reservoir. This is in the Wallace Reservoir. We had 29 definite shell middens. We also had 69 other sites that had shell of one sort or another. Sometimes it was just a few pieces. Often we had shell features or surface indications that there were shell features something like this. Almost all of these are associated with late Lamar ceramics. There are a few exceptions, but through the analysis I did several years ago, plus re-analysis I've been going through lately, it's definite that this is a late Lamar phenomenon, this formation of shell middens.

Now some of the sites with shell were clearly used for habitation, and one of these was like the one Shapiro mentioned that was GE153, and several other sites with small quantities of shell were primarily used for other activities probably. But you also have specialized sites like he mentioned, GE175 also PM220, which I dug, which is...there was virtually nothing there except shell and pottery. These are obviously specialized sites used primarily for obtaining aquatic fauna. If you look in the Savannah River in the Russell Reservoir area, we don't have shell middens. Taylor and Smith in their survey found little bits of shell here and there, but I know of no shell middens found in the area. Okay, now shoals were extensive, and there were plenty Mississippian sites near the shoals, but, you know, like I said you don't have the shell middens. And that in itself raises the question of why don't you have the shell middens? And if you if you believe, like I do, that there was less exploitation of other riverine resources represented at Beavermad and Rucker's Bottom, the question there is why is there less exploitation of riverine resources than you get in the Oconee as Shapiro found.
Now I was considering various possibilities, one of these I mentioned of course was the environmental differences—that there's differences in the nature of the floodplain, differences in the distribution of shoals versus floodplain and so forth. I also wanted to compare site densities to see...you know, just because it's been suggested that population size and population pressure can lead to increased use of riverine resources. It's difficult to compare site densities in the Wallace and Russell Reservoirs because survey coverage was much higher in the Wallace Reservoir than in the Russell Reservoir, and also the criteria for assigning sites different periods, to certain periods differed. Nearly 80 percent of the Wallace Reservoir was surveyed before it was inundated, and since that time various individuals have been surveying in the uplands around the reservoir. In all we found over 800 Mississippian sites in the Wallace Reservoir. And I was just talking to Dan Elliott, who's just estimated that there were probably 200 more Mississippian sites found in the uplands around the reservoir. So we're talking about a huge number. Now...

END TAPE 8, SIDE 1
BEGIN TAPE 8, SIDE 2

RUDOLPH - ...Dennis Blanton and I wrote an article in which we estimated the number of sites for different time periods, and since that time I've been doing some more analysis trying to refine the study we did, so I'm not prepared to give the exact site numbers for the different periods, but what we can say is that during the Etowah occupation in the Wallace Reservoir there was a very low site density there. At the time I think we estimated there were 24 sites that were assignable to Etowah. Now I think there are a few more during the Savannah occupation. I have originally said there was an extremely low site density, in fact, almost none at all. But simply with Mark Williams' work at Shoulderbone and Shinholser we now know there are Savannah centers, and there may be more Savannah sites in the vicinity of those centers, but these lie outside the reservoir, so we can't really say much about them right now. So we have to leave the Savannah site density as sort of a question mark. During the early Lamar occupation, the Duvall phase mainly, you see a somewhat higher site density. I think we, Dennis and I estimated about 56 sites, and now there more known, but there's still not a whole lot, there's more than Etowah, but there's not a lot. During the late Lamar occupation, and this combines both Dyar and Bell phase, we have several hundred sites. This is what Dennis and I estimated. Since then you know, in the future I'll be able to separate the Dyar phase and the Duvall, and the Bell phase and so forth, but I can still say that there are many, many times more late Lamar sites than there are sites of any other period. So the site density is definitely increasing, and the increase is so substantial, that even though you might have an increased use of extractive sites that aren't occupied, you might have an population dispersal going on and several other things. I still think there was population growth as well.

If you turn to the Russell Reservoir what you see is we have a total of 66 Mississippian sites, and of course, like I said, the survey wasn't of the same scale. Vegetation was not cleared in the Russell Reservoir, so there's really no way to get a good handle just how many sites there could have been in the area. Of these 66 sites, we don't have component data for all of them, but we estimated--Dave Hally and I estimated that there were 9 Etowah sites, 11 Savannah sites, 24 early Lamar sites, and as it's been said previously, there were no late Lamar sites in the area. Now there are many undiscovered Mississippian sites probably lie under the waters of the Russell Reservoir, but those of us who have worked in both areas can attest to the fact there really are differences in
site density—that in Wallace we used to trip over Lamar sherds. They're just everywhere. In the Russell Reservoir there's nothing like that. We actually talked about, gee, where are the Mississippian sites. We're not finding them. Of course I wasn't doing surveys. Just walking along field roads and so forth you just didn't see these things. However, I do have the impression that there was probably a higher density of Savannah sites in the Russell Reservoir than there was in the Wallace Reservoir. That's excluding the area right around Scull Shoals, which we really don't know anything about.

I think there was, maybe, maybe not a much higher density, but there was a higher density. We were finding Savannah sites in the area. Etowah sites—there were a few Etowah sites in both areas. I don't really, I can't really compare. Most of the sites we know about in the area are early Lamar sites, but I don't know how to quantitatively compare the density in Russell to Wallace, so I'm just suspecting similar densities overall. And then of course there are no late Lamar sites in Russell, hundreds of late Lamar sites in Wallace. I think it's...so there are differences, like I said, probably in site densities and probably population densities also. But you do have a seeming correlation between the introduction of shell middens in the Wallace Reservoir and the increase in site density, while on the Russell Reservoir we have a low site density during most of the time and no shell middens.

Okay if you look at inferred differences in political complexity. Again it's a little difficult to go on because we have in some cases little more than the number of centers to base our inferences on. If you look at the late Lamar occupation in the Oconee Valley, though, you see that there are late Lamar components at Scull Shoals, Dyar, possibly Little River, there's some disagreement over that, possibly Shoulderbone,...

**SHAPIRO** - Definitely. A late Lamar component?
**RUDOLPH** - At which one?
**SHAPIRO** - At Little River.
**RUDOLPH** - At Little River?
**SHAPIRO** - Certainly.
**RUDOLPH** - Depends on who you ask.
**WILLIAMS** - Sherds don't lie.
**SMITH?** - How many sherds?
**WILLIAMS** - Thousands.
**RUDOLPH** - Okay possibly Shoulderbone and Shinholser. This was the first time during the Mississippian occupation of the Oconee Valley that all these centers were used simultaneously. Before that time, as we've discussed, there were periodic abandonments of one or two centers during each phase. If we can use the number of centers as an indication of political complexity then we can infer that the late Lamar political organization in the Oconee Valley was the most complex to have developed in that valley. Okay, if you turn to the Russell Reservoir, during the thirteenth century, during the Beaverdam phase, which is what, you know, the only component at the Beaverdam Creek site, the only definite center is Beaverdam Creek. You have the Tate mound up Beaverdam creek several kilometers, but all we know from that is there are some Savannah sherds found at the site. And like we, Dave Hally mentioned, there may be a Woodland mound there. We simply don't know.

Then you have Rembert, which lies 12 kilometers south of Beaverdam. There it's mainly a Rembert phase component, early Lamar. There is a component that looks somewhat like
Savannah, like Beaverdam phase, but Dave estimated that it was probably a little bit later. So, again, we're not sure whether that's strictly a Beaverdam phase component there or not. But again if the size and number of mounds is an indication of complexity, then the Beaverdam phase chiefdom was less complex than the chiefdom that existed in the Oconee Valley during the late Lamar occupation. Well, what I'm pointing out here is that you have several variables that are operating...that you can't, you know, as we've mentioned before, you can't look at just ecological factors, just demographic factors, just political complexity. All these things are changing at the same time.

In the long run I want to look at how these variables are changing--which ones seem to be more important in different situations. I would like to use this to explain the variation in the subsistence that I see. However, since there may not be variation in the subsistence, I'm not sure what I'd be explaining. [LAUGHTER] I think that will remain for some future work.

SHAPIRO - There's one thing I want to point out about permanently occupied village sites and their faunal assemblages is that, if aquatic resources are only important for a few months out of the year, then they will be completely dwarfed by whatever is the principal resource for nine months out of the year. And so a year-long occupation at the Dyar site, or Beaverdam would have a smaller aquatic component to its faunal remains than would any of the sites at the shoals, which are occupied primarily during that season. The trick will be to compare those two permanently year-round occupied village sites with comparable data. See what the difference is.

RUDOLPH - Based on the information that I got out of your dissertation it looked like Beaverdam had more deer than Dyar. But like you said before that MNI is not very good so it's a little hard to estimate.

ANDERSON - That was a problem when we were digging at Ruckers. Susan Scott, a zooarchaeologist, was with us the second field season, and she was always asking where are the fish. And we did everything possible to try to look for zooarchaeological remains, you know, when you've got somebody like that on the project.

SHAPIRO - Yes.

RUDOLPH - Well, you've got a fair number of fish coming out of that site.

ANDERSON - Yes, but it's still less than had been expected.

SHAPIRO - Well, just reduce the numbers to a comparable fragment count so you don't have that introduced bias by MNI and see how it comes out. I wish I had weighed the bones, and I'm embarrassed that I didn't weigh them. It wasn't a popular technique at the time.

ANDERSON - There are also traces of shell at Ruckers...

RUDOLPH - It was the same thing at Beaverdam.

ANDERSON - ...but it's virtually non-existent. And one thing I'd be interested in is what is the potential for shellfish in the shoals of the Savannah. Is there something about the shoals in the Savannah as opposed to in the Oconee that just predisposes--I mean, I don't know.

RUDOLPH - Well, the shoals in the Savannah, the ones right there at Trotter Shoals, are the most extensive in the Savannah River valley, and I think they'd be outstanding for shellfish.

SHAPIRO - Good place to put a village.

WOOD - I didn't see any difference in the shoals whatsoever on the two rivers. Geologically, there very similar. There are more shoals on the Savannah, and they're not just down at that lower end, they're in spots, smaller spots of shoals all the way up as far up as you can go.

WILLIAMS - Well, there has to be. As you said it starts higher and its a lot shorter.
WOOD - Yes.
RUDOLPH - Well, I think on the map, if you can see Greg Shoals about half way up the river, and there are a few other small ones I don't have on there.
ANDERSON - Well, I'm just wondering if there are characteristics about the drainage itself that predispose the presence large quantities of shellfish. It's curious that all through time we don't find much in the way of shellfish remains in the one drainage, whereas we do in the other, and it may be that something like gradient or...
BRALEY - Stallings Island.
WILLIAMS - What about Stallings Island?
ANDERSON - Stallings Island is 50 or 60 miles downstream.
WOOD - Well Stallings Island is...obviously there's a lot of shell there.
ANDERSON - But it's a long ways downstream as well.
WOOD - Is it possible that they could wash away? I mean when we're talking about the velocity of that river, I know...
WILLIAMS - They can't hold on.
[LAUGHTER]
RUDOLPH - You'd just change the species. You wouldn't be changing the...wiping out the whole shellfish population.
WOOD - But the Oconee, it's always had more silt load than the Savannah.
[MANY PEOPLE TALKING TOGETHER]
WOOD - There are historical accounts of flooding on the Savannah River that are phenomenal, whereas on the Oconee, I mean as far as the violence created by the Savannah River, the 1908 flood just took out everything, and the Oconee, while it floods it has the area to go out into. I was just wondering if they just couldn't hang on. [LAUGHTER]
WOOD - Tiny little hands!
[LAUGHTER]
RUDOLPH - ...his discussion of how the...right now? Oh, let's wait.
ANDERSON - Well, it does strike me as curious that in some drainages that you do find it at not only the Mississippian but in the late Archaic, but in some drainages you seem to have shell midden sites and in others you don't and you really wonder what's going on...
WOOD - Well, on that same river for instance, why is there Stallings Island, the ultimate shell midden...
ANDERSON - ...shell midden and Rabbit Mount...
WOOD - ...and then go up stream, and in all of our cases, none, zero, zilch, not even a piece.
ANDERSON - Nothing, right.
WOOD - That's strange I still don't understand that.
WILLIAMS - Are there shellfish on the Wateree?
DEPRATTER - There are no...there is one shell midden on the Wateree that we know about, and based on what we know, its earlier than the mound site, so there are only, in all of the interior of South Carolina, four other shell midden sites that we know of.
SHAPIRO - Jim I have a question. I'd like to know if you think there's a relationship between the narrowness of the floodplain on the Savannah and the abandonment of the Savannah at a time when you think population's increasing in the Oconee?
RUDOLPH - Well, I thought about that, and I've talked to several people about it. I think that if...I don't see anything in the...I haven't seen anything in the ceramics that would suggest that there's some sort of Rembert phase...

SHAPIRO - Movement.

RUDOLPH - ...migration, but then I'm not sure what you'd look for really to prove that. My feeling in talking to Dave was that if you were going to abandon any river valley to form a buffer zone, the Savannah would be a good one to abandon because there wasn't a whole lot there, you know. There wasn't much floodplain and there wasn't much--I don't think there was that much population. So I...

DEPRATTER - No, it wasn't only the Savannah. It was the Savannah and the Broad and maybe the upper Ogeechee and some other things in between.

RUDOLPH - Yes. Well, I think...there hasn't been much survey at all on the upper Ogeechee. Dennis Blanton and I went out there for like a day just spot checking around in cleared fields and things, and we didn't see any Lamar at all. And I'm wondering if that might not have been a buffer zone kind of thing earlier between Rembert phase and Duvall. Well, it is yes.

WILLIAMS - Is the buffer zone between Ocute and Cofitachequi the biggest in our entire area?

DEPRATTER - Yes.

ANDERSON - It seems to be, yes.

WILLIAMS - By a factor of three.

ANDERSON - And that's over time as well.

WOOD - Yes, I was going to say how old, how long does that go back?

ANDERSON - Well, if you look at buffer zones supposed between things like Etowah and Moundville, if you want to even believe in such things, it's awfully big. I mean it's about as big.

DEPRATTER - A buffer zone between Etowah and Moundville?

ANDERSON - Well, back in 1200 A.D., if you're looking for comparable possible situations.

DEPRATTER - Oh, okay, yes. I know what you're talking about.

HUDSON - The zone between Chickasaw and Quiz Quiz was fairly big too. Because they went...

WILLIAMS - I was thinking for the southern Appalachian area.

HUDSON - Oh, okay, I thought you meant period.

WILLIAMS - Well, that's a good other question, too.

SHAPIRO - How about the upper Chattahoochee, and what did we talk about yesterday, the Allatoona, which does not seem to be occupied late.

ANDERSON - It's not as big.

G. SCHNELL - If you go far enough south you get the floodplain beside the river, so there's not any ability to farm in the uplands anyway.

SHAPIRO - I'd like to put us back on...Oh I'm sorry Gail.

G. SCHNELL - No, that's okay.

SHAPIRO - I'd like to put us back on track, and a lot of us have made fleeting references to upland sites and Dan has something to say about them.

ELLIOTT - I'm not going to say anything about them.

SHAPIRO - Well, you really should. How big are they?

ELLIOTT - Before we get off the track, I want to get to the boundary thing.

SMITH - Dan, it's not on right.

SHAPIRO - Turn it all the way up. Flip that switch all the way up.
Elliott: This is from another paper, but, this is an area that I've covered more than anybody else, and this is not going to equate with Savannah, probably, so this is not Russell Reservoir, but it's the same drainage system on the South Carolina side showing that there are sites there, not big sites, but they are there. That concentration there on 33 and 5 is a shoreline survey along Clark Hill Reservoir which is downstream from Rembert. So there's Savannah on the Savannah.

Kowalewski: Those numbers are numbers of sites?

Elliott: Numbers of sites per topo quad, those are, whereas this is Lamar. So there's not much Lamar, because that same shoreline coverage was pretty good coverage, and there's just not a lot of it. The two up in the upper part are two historic Cherokee sites, Tomasse and Chattooaga town, so that's Cherokee.

Williams: What was that slide before this one? That one.

Elliott: This is just sort of a density of sites, in the pre-Mississippian period.

Williams: Simple Stamped?

Elliott: Variety of fabric marked, cord marked, simple stamped, check stamped, sort of a number of sites. And this is a Mississippian or late Woodland. I couldn't really discriminate between late Woodland and Mississippian in my data. But there's a fair number of both, and they're definitely tied in with near the river, but not on the river. Most of my coverage is uplands in this survey except for about 10 or 15 miles of shoreline and survey on Clark Hill. And this is the site that I'm not going to talk about. Big Ray and Little Ray. Just showing that there are a variety of vessel forms on this site. This site is a long way from the river. And, well, it's not quite as far as you can get from the river, but if you start looking for areas a long ways from the river in Georgia you start running to other rivers, you know. [Laughter] It's hard to find the right kind of places to look.

This site is--this one was sort of hanging around in my closet, and I felt guilty about it, and this was a good forum to put it into. I found the site type even though there's a zillion of them and we just sort of take them for granted now. But they're uphill, and this one had shell. It had deer bone. It had some sort of bird, and it was just surface collected. I don't know if it's worth digging, but there's a lot of sites like this that might be, and they may be very short term occupations so talking about how burials are very thin slices of time, these may be very thin slices of time, maybe one single house occupation per generation or two generations, but very, very different kind of site from a mound site that you can't see the forest for the trees. You may be able to pick things out these sites if there are any features left. So I'm going to save all the time I have left and give it to everybody to talk.

Shapiro: I've got a question. It seems like a pretty high percentage of jars, and higher than I would have expected, if jars, I don't know how big they are, but if they indicate something about site permanence, then that might be good evidence for your sites being more than just special uses of uplands.

Williams: Big Ray and Little Ray cannot have any floodplain agriculture.

Elliott: Probably not, but there's some Cecil Loam, and you could have, maybe you could...it wouldn't be replenished land...that you might could farm it until it was wasted.

Williams: Ten or how long, 10 or 15 years? Ten years, I mean. I mentioned swidden earlier. Slash and burn. That's what...
ELLIOIT - When the white guys got there and started farming the uplands, within 20 or 30 years it was gone. The thick, rich soils they described were down hill.

GARROW - (They tried to plant cotton)?

ELLIOIT - Yes, I don't know how intense this...

WILLIAMS - So rather than maybe a generation or two as you suggested, maybe much less than a generation, even as occupation for some, for many of these sites.

ANDERSON - Except...

GARROW - That soil was subjected to erosion immediately after it was opened up quite suddenly, which you do get with swidden agriculture.

SHAPIRO - European population density was probably, didn't compare with that of the Indians, and they wouldn't have opened up a big area.

RUDOLPH - Yes, but the Europeans had no interest in preserving the land.

HUDDSON - What about farming techniques in Apalachee? Was it swidden?

SCARRY? - Yes.

WILLIAMS - How much area do, of corn, Dean, of squash, how many acres do you need for a family of eight.

KNIGHT? - Eight?

WOOD? - Eight?

[LAUGHTER]

WILLIAMS - Ten.

SHAPIRO - That's Mark and his retainers.

HUDDSON - Let's make a little Protestant family.

[LAUGHTER]

JONES - In Apalachee during historic times I believe it works out to five.

SHAPIRO - Okay, 5 acres.

JONES - No, five people per family.

WILLIAMS - All right five people, how mu...what do you need? 2 acres?

JONES - Depends on the year and the type of soil, but I understand you question, though.

G. SCHNELL - Can you double crop or not?

JONES - Yes. In Apalachee they double crop.

HUDDSON - So the Apalachee you didn't really have what you'd call a favored soil cultivation. I mean in the sense of a sandy alluvium or...

JONES - Well, all the Orangeburg soils are about alike on the hills.

SHAPIRO - As long as you're on the hill or the hill slope.

HUDDSON - But by favored soil, I mean something you could just farm the hell out of and keep on doing it and not having to move.

JONES - Well, not very long at a time.

WILLIAMS - How long?

JONES - How long? They probably could till for something like 4 or 5 years.

WILLIAMS - Four or 5 years.

HUDDSON - Can you be sure that this was the form of agriculture before the Spaniards came in and made them start farming in a different way?

SCARRY - DeSoto talks about those ...?... or fields.

SHAPIRO - Yes.
JONES - Very much like the plantation agriculture of the South today, in other words, little patches and woods and little patches renewed, in other words, were allowed to grow up...

SCARRY - They also talk about the trees in the fields.

WOOD - I want to ask Dan something which bears on this. The availability of the Cecil soil there, isn't it...there's a lot of acreage. Aren't those Cecil soils on some of the Davidson Loams on those big broad ridges of which Big Ray and Little Ray are kind of off to the side, off the spur, so that you could have 10 acre, 20 acre tracts in...

ELLIOOTT - Yes, and as you get closer to the water shed break, like in Walton County and some of those areas there, like half the county is Cecil Loam.

WOOD - Yes, they're incredibly broad expanse almost level area of these fairly fertile soils. I'm wondering if you really would be that limited in the amount of time you could farm on it with swidden agriculture. Because they're so extensive.

WILLIAMS - I'm talking about a single plot.

WOOD - Oh, okay, well then, when that one's done why not open another one right near by.

WILLIAMS - That's right. You move your house about 1/4 mile.

[SEVERAL SAY NO IN ONE FORM OR ANOTHER]

WILLIAMS - Well, how far do you have to walk before you move your house?

WOOD - You might not ever have to. You might, you might just be able to...

ANDERSON - Southwestern communities farm fields are far as 5 to 10 miles away routinely. They disperse their fields into a number of micro-environmental zones.

WILLIAMS - Well, what I've been trying to get at is to try to explain why we have 5,000 Lamar sites in a three or four county area and less...and not have a population of 100,000 people.

SCARRY - You ..?.. Dobyns.

WILLIAMS - And by saying that, you know, after 5, 10, or 15 years you abandon this house, and that family moved over 1/4 or 1/2 or 1 mile and built another one. Is it more trouble to rebuild a house after it rots with termites than it is to build a new one?

KOWALEWSKI - Can I see if I can get a hand on this from Dan? How big was Finches survey area?

ELLIOOTT - 1300 acres or 1300 hectares or...I don't remember. About 1500 acres, I believe.

KOWALEWSKI - And then how many ...

ELLIOOTT - Total coverage though.

KOWALEWSKI - And then how many late Lamar sites did you find? Say late Dyar.

ELLIOOTT - 40 or 50 something like that. About 1 every 20 acres, maybe.

RUDOLPH - It came 1 to 20 acres.

ELLIOOTT - Yes.

KOWALEWSKI - So you could, if you used most of that land for corn agriculture you could rotate right next to your house.

WOOD - Amongst your neighbors. There might be a big population. There might be a lot of people there.

HUDSON - DeSoto said it was really densely populated. I mean the chroniclers did. I mean they specifically said a very dense population.

SCARRY - The houses may last 10 to 20 years.
WILLIAMS - Before it falls down under it's own weight. We haven't excavated any yet and don't know whether they were rebuilt. We need to find out if they can be rebuilt or not. We simply don't know.

ANDERSON - I think we need to be looking, as someone said, we need to be looking at more of these small upland scatters and dig them. In some areas of the American Bottoms, just as an example, hamlets have been found, but on the surface they're just a handful of sherds, and when people dig them they find houses with outlying pit clusters, and until we actually start to explore some of these sites we don't know what a handful of sherds in an upland setting may mean in terms of a settlement system.

WILLIAMS - But, I can tell you this that if you look at the size distribution across the surface of those sites, they are almost exactly the same size as all the little rural houses that are out there in Oconee County now.

ELLIOTT - But some of them are bigger than others. There are some that are fairly large.

WILLIAMS - Some are.

ELLIOTT - And they're all--those are also tend to be multi-component, too, so there may be differences in the uplands.

SHAPIRO - I think this is a good time to talk about what we've been doing the last couple of days and the value of it. I think that we've pulled together not only a lot of perspectives here, but we've also discussed a million different directions for future research, some of which can be easily done, some of which we're probably going to do in the next few years. The specific question I want to ask of everyone is how they feel about publishing the results of the conference and in what form. I have, at least in my head, at least two possibilities. One is that it would be a relatively simple matter to for all of us to revise and publish the papers that were presented today. We may want to revise them in light of some of our discussions.

And if so we have tapes and notes available. I think that would be the easiest job. It would be less simple to publish the chronologies in that it requires more work on the part of everyone who submitted chronology to expand their discussion with a little more detail, but along the lines of a skeleton that would make one person's description more comparable to the next person's in terms of areas covered. So that would take a little more work. The other thing about yesterday's material is it would probably have a more limited distribution than would a collection of papers on the present state of research in this region. And so we could consider publishing both of them separately. Or we could consider publishing just one. I think the chronology information is extremely valuable. It was obviously valuable for all of us to see everybody else's material and talk about what their criteria are, and I strongly encourage that it be published.

HUDSON - Could you also extend it? Like I think it's really tragic we didn't have Roy Dickens or somebody like him.

SHAPIRO - I agree.

WILLIAMS - We tried.

HUDSON - Shine II or the lower Tallapoosa I would have like to have seen.

WILLIAMS - That definitely has to be put in there before it's published.

SHAPIRO - That's right. We've been trying to get those individuals involved and hopefully all of you can embarrass them into contributing to it. But, I think what we've brought together is valuable and should be made available. And I think a lot of people when they wrote their papers intended them to be published. So two questions: Are the people who submitted chronology
contributions ready to go the extra mile for the kind of detail we need or reorganization that we need. And, number 2, who's going to publish this? We don't really have any leads on publications, publishers.

WOOD - What kind of publication are you looking for? Or what do you have in your mind? I mean, there's...

SHAPIRO - In my mind...

WOOD - ...when you say publication that can be interpreted in many different ways. You can talk about through a recognized press with a hard cover and so forth and so on or, or just a very wide distribution of...

SHAPIRO - Right.

WOOD - ...well, you know what I mean--xeroxing and spiral binding and things like that, but make 500 copies or something like that.

SHAPIRO - It could go either way, but I think that it should, minimally be a perfect bound, edited volume of the proceedings of the LAMAR Institute's South Appalachian Mississippian Conference. Now, that's the way I envisioned it. It could be called anything. It could it could go in any direction.

WOOD - It's going to boil down to money.

SHAPIRO - It's going to boil down to money, and it's going to boil down to a lot of time and a lot of effort.

WOOD - Oh well, no matter what we do it's going to take a lot of time, I was just wondering about...

SHAPIRO - I think I've heard that, if you have a good enough product, and you've already done most of the work of organizing it and editing it, that you probably won't have much trouble in getting a publisher interested in it. I'd like to believe that. I'm willing to go out on a limb to see that we have such a product. I'm counting on everybody's help.

HALLY - Gary it seems that for this ceramic chronology part you should establish a format.

SHAPIRO - Absolutely. It needs to be a...

HALLY - If you want everybody to conform to a description.

SHAPIRO - A template. Well, how about it, people who made chronology contributions are you...

WILLIAMS - Let's ask it this way. Does anyone object?

[LAUGHTER]

SHAPIRO - That's the way you do it!

POLHEMUS? - That's the way they do it in Congress.

WILLIAMS - That's right!

WOOD - Raise your hand and...

G. SCHNELL - I don't know what the state of affairs is for Early Georgia as far as accepting publications is, but it seems to me that would be a perfect vehicle for the chronology if you wanted to separate to the two. Because there would be people all over the state who would want those chronologies.

WILLIAMS - It's beyond the state, though.

G. SCHNELL - Well, yes, but it is for...I mean,

SCARRY - People outside the state only occasionally buy Early Georgia.

G. SCHNELL - Yes, ...?... Early Georgia, we could ...?... Tennessee.
SHAPIRO - I will say this much, it should go to somebody who will advertise in the sense that I think it deserves a fairly wide distribution, that South Appalachian Mississippian is one of the few broad regional variants of Mississippian society. I don't...since Leland's dissertation hasn't been treated as a unit, to bring together information for the whole region, then I think that it's about time. And I think that there are people outside the South Appalachian region who will be interested in that.

WOOD - Gary do you think that we usually have these discussions among ourselves, but what I was thinking do you think it would be better if someone outside the LAMAR Institute did it, or if we sought funding and did it, distributed it, advertised it, and so forth?

SHAPIRO - Well, to be honest, I'd rather see somebody else do it because otherwise there's going to be a lot of sleepless nights for a long time considering all our other work.

KNIGHT - It's all your fault anyway.

SHAPIRO - Yes, I know, I know, but nevertheless, it can be done.

WOOD - I was just thinking in terms of the...it seems that the best would be to do our own work and then have the product and try to attract someone.

SCARRY - The Smithsonian Press might do it.

WILLIAMS - No wait, we're talking here about the chronology.

WOOD - Oh, just chronology.

WILLIAMS - Is that what we're talking about first?

SHAPIRO - Do you think they should go together?

WILLIAMS - I think that they'll both go out of date just as quick.

[LAUGHTER]

SHAPIRO - Well, then they should go together.

ANDERSON - I would like to add that some of the most interesting things we've heard, and this doubles your workload, but some of the most interesting things we've heard have come from the commentary, both for the chronology and the papers given today and unless that can be incorporated...

WILLIAMS - Well, it's definitely going to be transcribed. The question is how to boil what's going to, I can promise you, 150 or 160 pages of typed double-spaced draft to something less than that.

ANDERSON - Okay, thinking of Dave Davis--the publication on Gulf pre-history--there was a section at the end...I mean, you might have to...I'm just suggesting it as a possibility.

SHAPIRO - Yes, well, we could edit that down and circulate it.

ANDERSON - The other thing is...

WILLIAMS - I'm not sure that you might not be right, that we could edit portions of it down to about a 30 or 40 page thing and include it.

ANDERSON - The other thing you say they'll both go out of date quickly. Well, that's true, but we need a baseline to say that this is the way we think as of 1986.

WILLIAMS - Oh, I agree, but I guess what I was suggesting is that I'm not convinced that we shouldn't do them together.

SCARRY - Well, I think that the papers should have...there will be people...

WILLIAMS - convinced

SHAPIRO - I think we should do it.
SCARRY - ...elsewhere that would be interested in what we think of chiefly societies in South Appalachian. I don't think there will be people in the American Bottom who will care which came first, filfots or figure eights.

SHAPIRO - Well, maybe we could have it in a short enough format.

ELLIOTT - How about a chart to look at?

SHAPIRO - Yes, if there's a large chart and a map and a relatively small section, but detailed section...

WOOD - Well, that's exactly what you've got there.

SHAPIRO - Right, that's one chapter.

WOOD - And it's very useful.

SHAPIRO - We've gotten very close already.

WILLIAMS - I think we're very close.

WOOD - And it's very useful right there. It's doesn't take up that much room.

SCARRY - You don't want to publish a series of papers on the chronology.

WILLIAMS - Right. By themselves.

SHAPIRO - I just wanted to hear what everybody's up for, you know. It's going to take some work on all of our parts.

WILLIAMS - ...the chronologies and the maps.

POLHEMUS - One thing I'd like to see in addition to basic ceramic chronology are some other temporally diagnostic materials. Pots just don't float out there in space by themselves, and there are some other ornament forms, artifact types, architectural forms...

WILLIAMS - We don't have that...

SHAPIRO - We'll put it on our template that we send out to everybody to fill in the blanks, and there will be a section there for architectural changes through time, you know, and very few areas will be able to contribute to that, but the ones that have it, should publish it.

WOOD - What about...we've got papers in front of us that were presented today.

SHAPIRO - Yes.

WOOD - ...but there are a lot of us here who, for one reason or another, did not have a contribution to make except during the chronology. I can speak for myself in that, for instance, on Allatoona Lake we're not through washing.

SHAPIRO - Sure.

WOOD - And I don't have anything, I've got some contributions, but they're not firm enough where I want to give some numbers, but by fall they will be there.

WILLIAMS - I think we ought to have a rolling deadline.

[LAUGHTER]

WOOD - Well, no.

SHAPIRO - No, Mark.

WOOD - No, we're going to have to have one that's a little bit flexible, because there's a few of us I think that can put something together.

SHAPIRO - I think we're going to roll home and come up with a deadline, and you'll hear about it in the mail.

ANDERSON - And then expect it to slip quite a bit anyway.

SHAPIRO - Oh, no.

WILLIAMS - Yes, that's a little bit.
SHAPIRO - Never admit that.
JACKIE SAINDON - So people feel some sort of publication with the papers and the chronology should be published.
SHAPIRO - I'm for that.
WILLIAMS - That's what I think.
NANCE - I think ...
HALLY - Some of the ceramic stuff's already been published. The Wallace stuff's published or will be finished published...
WILLIAMS - But it's going to be in obscure places and pulling it all together in one place...
RUDOLPH - I resent that!
WILLIAMS - I would like to have that myself. I mean even if I had some of my own stuff in other places I'm sure most of you feel that way too.
NANCE - You know there's Southeastern Archaeology. Steponaitis might agree to a special issue.
SHAPIRO - That might be a great way to go.
HALLY - The Lab Series could be used, you know, used for either maybe, you know...
WILLIAMS - But that means we'd have to find that money.
HALLY - Yes, you'd have to come up with well, the ceramic part...you are going to want half tones. That's going to be very expensive.
WILLIAMS - I think we ought to investigate trying to get somebody interested in publishing this before we try and raise the money ourselves.
SHAPIRO - I'd like...for the LAMAR Institute...I'd like to thank everybody for coming and making for such a good conference and I know everybody feels the same. We really appreciate y'all.
WILLIAMS - We appreciate y'all.
HATCH - Well, thank you.
HUDSON - We appreciate Mark and Gary for putting on such a fine show.
SHAPIRO - Thank you. Y'all come back now.

END TAPE 8, SIDE 2