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THE EVOLUTION OF SETTLEMENT AND LAND USE IN JACKSON AND MADISON COUNTIES, GEORGIA

THOMAS JOHN PLUCKHAN

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by

THOMAS JOHN PLUCKHAN

Approved:

David J Hally
Major Professor

December 15, 1993
Date

Approved:

Dean of the Graduate School

December 17, 1993
Date

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THOMAS JOHN PLUCKHAN

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CHAPTER 1

INTRODUCTION AND THEORETICAL BACKGROUND

Introduction

The clearcuts, plowed fields, and eroding ridges of Georgia reveal 12,000 years of human occupation that are neglected in the histories of our state. This is an occupation that is not recorded in documents or memories but in fragments of pottery and stone tools, the only record of countless generations who lived here before Europeans "discovered" the Americas. While archaeologists in the Southeast have worked with this material intensively since the 1930s, they have predominantly focused on the excavation of mound and village sites. These investigations have provided a wealth of information on the household activities of a small percentage of the population, but have largely failed to address questions of a broader scale. In order to understand the people who inhabited these villages, we must identify the place of these sites in the overall settlement system.

Since the 1960s, many archaeologists have realized that archaeological survey may, in fact, be more useful than site excavation for identifying regional phenomena such as trade, settlement, and land use patterns. Unfortunately, although survey-oriented archaeology has increased in the last decade with the expansion of cultural resource management, much of this work, like the excavations that preceded it, has been reported as isolates, divorced from considerations of regional and temporal dynamics. Archaeological information, like potsherds, often appears as fragments of a larger whole.

This thesis is an attempt to relate settlement data to a larger spatial and temporal framework. I focus on archaeological and historical data from my project area, Jackson and Madison Counties, Georgia, as well as from surrounding areas. For the project area, my data comes from my survey of timber clearcuts, previous archaeological research in the area, and various historical sources. I use these bodies of data to identify the relationship between settlements and natural resources, and the relationships between different settlements. For the study of surrounding areas, I rely on other large archaeological surveys and on the records of the Georgia State Site Files. By comparing patterns and trends regionally and temporally, and by comparing my data with previous models of settlement patterns, I present a description of the evolution of the cultural and natural landscape within the project area.

Theoretical Background

Although archaeologists have long recognized that settlement patterns may reflect the socio-political, religious, and ecological systems of past societies (Trigger 1968:53-78; Willey 1956:1), they have spent an equally long period of time struggling with the question of how these three systems can operate concomitantly to produce the archaeological record. Perhaps more accurately, archaeologists have struggled to find a paradigm capable of integrating socio-political, religious, and ecological explanations of settlement patterns. As a result, analyses of archaeological settlement patterns have usually tended to emphasize one or the other of these three systems as the primary determinant of particular settlement patterns in the archaeological record. Evon Vogt, in his review of the essays that make up the now classic *Prehistoric*

Settlement Patterns in the New World (Willey 1956), was the first to touch briefly on this dilemma when he wrote:

> Finally, I would raise a general theoretical question which I do not believe has been resolved on the basis of existing research. This question concerns the extent to which cultural beliefs and values (features which are difficult to infer from archeological remains) may affect settlement patterns in a manner that appears to override considerations of ecological and economic adjustment (Vogt 1956:181).

Twelve years later this theme would be taken up in greater detail by Bruce Trigger and Gordon Willey in their essays in *Settlement Archaeology* (Chang 1968). Trigger in particular discussed the issue at length. He noted that despite the variety of interpretations possible under Willey's original definition of settlement pattern studies:

> ...in recent years two approaches have dominated settlement pattern studies. The first is primarily ecological and often appears to be based on the assumption that the settlement pattern is a product of the simple interaction of two variables--environment and technology. This sort of ecological determinism has been actively promoted as a determinant not only of settlement patterns but also of culture in general...In the second kind of approach, settlement pattern data are used as a basis for making inferences about the social, political, and religious organization of prehistoric cultures (Trigger 1968:54).

Trigger further notes that the first, or ecological approach tends to focus on the "macrosettlement pattern", or patterns at the regional level, while the second, or socio-cultural approach tends to focus on the "microsettlement pattern", or the household and community levels.

Both Trigger and Willey seem at odds with this dichotomy. Willey wrote that:

> I would be opposed to any attempt to formalize an ecological vs. sociocultural dichotomy of settlement pattern determinants, as

> presumably Trigger would also. To attempt to view settlements and their determinants in such a frame of reference would be to begin with an assumption or bias that we would do well to avoid...a formal dichotomous classification not only loads the scales at the outset of the investigation but is otherwise limiting and disadvantageous (Willey 1968:215).

Trigger describes in considerable detail how socio-political, religious, and ecological forces can all *simultaneously* affect settlement patterns at different spatial and temporal levels (Trigger 1968:54-75). Moreover, as the following passage indicates, he calls for greater attention to the ways in which these forces can be integrated:

> If we conceive of the settlement pattern as an outcome of the adjustments a society makes to a series of determinants that vary both in importance and in the kinds of demands they make on the society, we must consider not merely the range of factors affecting settlement patterns but also the manner in which different factors interact with one another to influence a particular pattern. Factors vary in importance according to both the local situation and the temporal relationship they have to one another (1968:70-71).

I argue that settlement pattern studies have continued to fall along the lines of the ecological versus sociocultural dichotomy outlined by Trigger and Willey, and that this is largely because they have tended to be synchronic studies of spatially isolated areas (either macro or micro). It appears that the level of analysis has constrained interpretation. Although archaeologists have continued to study settlement patterns at the different spatial levels outlined by Trigger (1968:53-75), with the exception of a few more spatially and temporally sensitive studies in the late 1970s and early 1980s (c.f., Blanton, et al., 1983; Flannery 1976, Fish and Kowalewski 1990), they have usually neglected to look for the integration between different spatial and temporal levels.

What is needed is an approach to settlement patterns that allows the flexibility to switch levels of analysis (both spatial and temporal) and, therefore, avoids simplistic and overly deterministic explanations. I propose that this approach is best realized through a combination of the regional perspective (Fish and Kowalewski 1990; Smith 1976; Flannery 1976) and the hierarchical and cyclical model of historical processes developed by Braudel (Braudel 1980:25-54; Hudson 1987:6-24; Cobb 1991:168-182). Braudel's model of history recognizes the existence of three temporal dimensions. At the most basic level is the short time span, composed of instantaneous, individual events, that Braudel referred to as "*l'histoire événmentielle.*" At the opposite end are enduring, long term historical structures, Braudel's "*longue durée.*" Intermediate between these two levels are the cycles and intercycles of history (Braudel 1980:25-31).

The approach that I advocate here enables me to examine changes in settlement both over a long duration of time and across an extensive regional area. Time depth is important in any interpretation of settlement patterns because it allows the possibility of seeing long term structural changes and trends that may not be visible at a narrow or synchronic temporal scale (Braudel 1980:25-54; Hudson 1987:6-24). A regional perspective is important because it has the potential to identify trends that are not visible at the local level (Fish and Kowalewski 1990; Kowalewski 1990:207-270).

The combination of these two perspectives allows me to investigate both social and ecological determinants of settlement patterns without any of the inherent biases that "load the scales at the outset," as Willey suggested (1968: 215). Although I consider cultural and natural "systems" as one intimately bound unit, I do not believe that an appreciation of the ecological context of human settlement necessarily precludes consideration of the effects human choice, tradition, ideology, and social and political relationships can have in determining settlement patterns.

This approach is, of course, not without precedent. Recently ecologists have begun to notice the effects that spatial and temporal scale of analysis can have in constraining interpretation and understanding (Meentemeyer and Box 1987:15-34;

Wiens 1989:385-397). By focusing their analyses at the level of the local ecosystem, ecologists have often been blinded to regional interactions. Moreover, ecologists have tended to study ecosystems synchronically and have, therefore, often ignored what are long histories of human/environmental interaction. This tendency can create misleading assumptions about ecological systems such as the Southeast where humans have taken an active role in the manipulation of the environment for thousands of years. There is an increasing realization that it is important to look for connections across the broader landscape and to include considerations of long term environmental histories (e.g., Cronon 1983; Crosby 1986; Silver 1990; Trimble 1969).

Within archaeology, the rise of postprocessualism has brought a questioning of what has often been a synchronic and overly deterministic ecological focus. As Charlie Cobb has written:

> Ecologically based archaeological research does not necessarily lack the conceptual tools to address issues of long-term change, but most studies have chosen not to do so. They typically rely upon the universal type-stage evolutionary sequences developed by Service (1962) and Fried (1967) that ironically incorporate a determinism that is completely at odds with the tenets of evolutionary ecology. As many students of cultural evolution argued before postprocessual critiques appeared on the scene, cultural evolution, like biological evolution, is opportunistic and nondirectional rather than a process leading inexorably to higher and higher levels of complexity...
>
> More appropriate approaches for addressing the character of social evolution for those who wish to adhere to ecological/evolutionary models seem to include nonlinear or bifurcation models that do not view social systems as static, equilibrium seeking entities...(Cobb 1991:172).

In developing my approach I have been influenced by recent studies that recognize both ecological and social influences on the relationship between people and resources by examining changes through time and across space (Earle 1991; Hastorf and Johannsen 1991; Cobb 1991). The use of a spatially and temporally flexible approach to settlement patterns avoids deterministic explanations by allowing for a multiplicity of constraints on settlement (i.e., both long and short term, and local and regional constraints). There may, for example, be long term geographic constraints that are mitigated by cyclical or shorter term political and social processes.

I will attempt to implement this approach through the utilization of a number of organizational and analytical techniques. First, I will present descriptions of settlement and land use in the project area chronologically by period. Within each of these sections I will place my results and interpretation within the context of developments throughout the Southeast. Moreover, I will present more detailed comparisons of my results with those of other large archaeological surveys in the Georgia Piedmont. Although I will constantly attempt to identify continuity and change between these periods, in my final chapter I will also make comparisons across the entire span of the past 12,000 years. My hope is that this approach will allow me to present a more balanced and thorough view of the evolution of settlement and land use in Jackson and Madison Counties.

CHAPTER 2

ENVIRONMENTAL SETTING OF THE PROJECT AREA

Changes in vegetation and climate in the project area will be described in later chapters. What follows here is a general sketch of some of the more enduring environmental features in Jackson and Madison Counties.

Physiography and Hydrology

Figure 1 is a map of Georgia showing the location of the project area in relation to the major streams and physiographic provinces of the state. Jackson and Madison Counties, Georgia, lie in the Southern Piedmont section of the larger Piedmont Physiographic Province, a region running southwest to northeast between the Coastal Plain and the Appalachian Mountains. Geographers further divide the Southern Piedmont into districts. These two counties are part of the Winder Slope District, an area characterized by gently rolling topography dissected by the headwater tributaries of major streams that flow south and east into the Atlantic Ocean. Stream valleys are fairly deep and narrow, and lie 30-60 meters below rounded stream divides (Clark and Zisa 1976).

Jackson County contains a significant portion of two major tributaries of the Oconee River drainage, the North and Middle Oconee Rivers, as well as numerous smaller tributaries. The more prominent of these smaller tributaries include the Mulberry River, Little Curry Creek, Bear Creek, and Sandy Creek. Jackson County

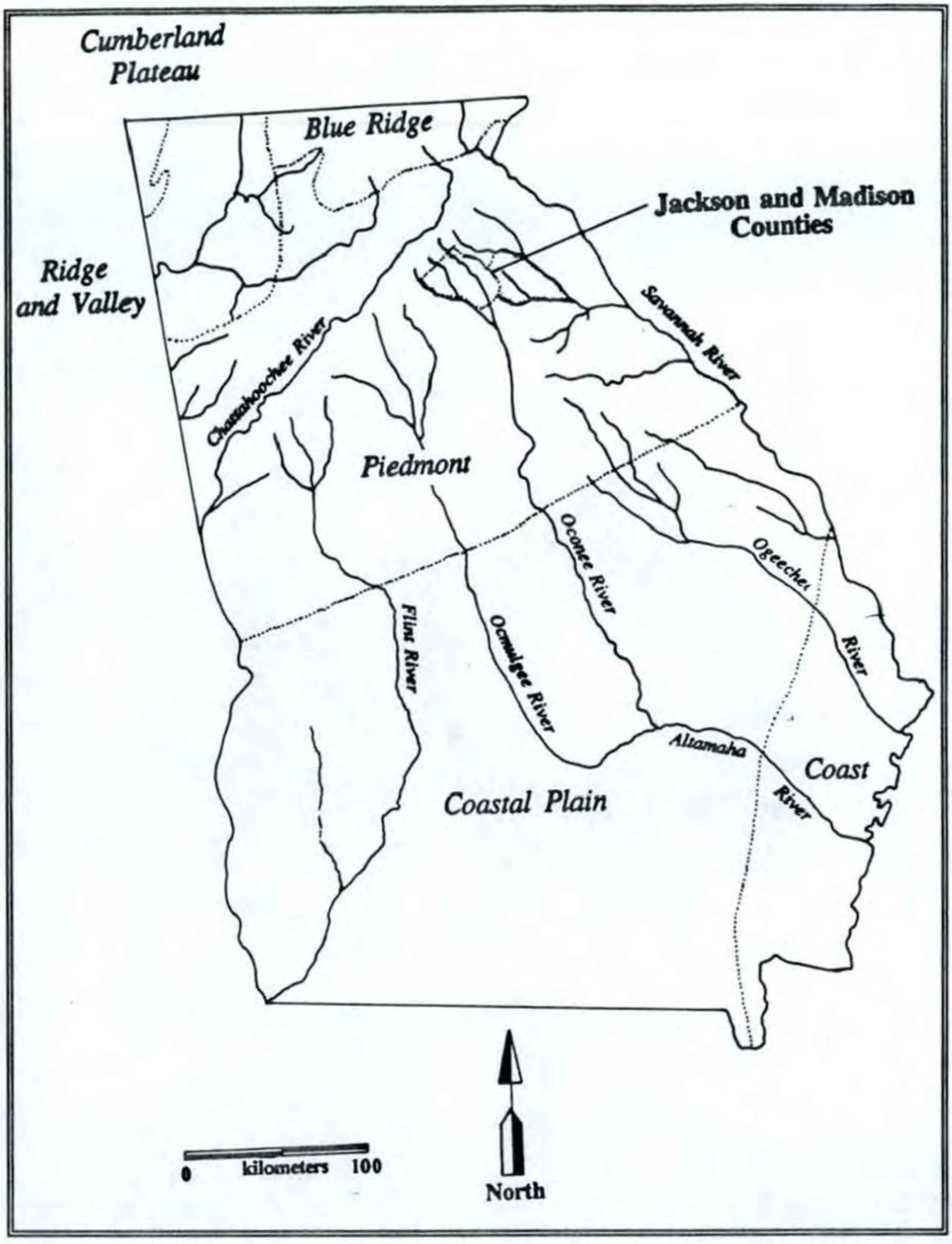


Figure 1. The project area in relation to the major streams and physiographic provinces of Georgia.

lies just south of the Brevard Fault, which separates the Oconee and Chattahoochee drainage systems.

Only the very western-most portion of Madison County lies within the Oconee River drainage. This portion of the county is drained by Sandy and Little Sandy Creek, which flow into the Oconee River. The rest of the county is part of the Savannah River drainage system. Several large tributaries of the Savannah River, the Broad and South Fork of the Broad Rivers, are within or border Madison County. Numerous smaller streams drain into these two rivers.

Jackson and Madison Counties are part of a broad headwaters region that is bounded by sizable rivers such as the Savannah, Chattahoochee, and Oconee. The differences in hydrology between the project area and these other areas can be illustrated by employing a stream ranking system designed by Strahler (1964) and adapted for Piedmont Georgia by Lee (1977). Following their examples, I have given the streams in the northeastern Georgia region (Figure 2) and in the project area (Figure 3) a numerical ranking between one and five. Rank 1 streams are the very small or intermittent creeks at the head of a drainage that are usually represented as either dotted or thin, short lines on 7 1/2' series, 1:24,000 scale USGS topographic maps. Streams formed by the confluence of two or more Rank 1 streams are designated Rank 2. Rank 3 streams, which represent major tributaries, are formed by the confluence of two or more Rank 2 channels. Rank 4 and 5 streams, which represent the main channels of large rivers are formed from the confluence of Rank 3 and Rank 4 streams, respectively. As Figure 3 indicates, the majority of the streams in Jackson and Madison Counties fall within the range of Ranks 1 through 3. Only the Middle and North Oconee Rivers and Broad River, all in the southern-most portion of the project area, are Rank 4. To the east of the project area, the Broad converges with the Savannah (Rank 5). Just south of the two counties, the North and Middle

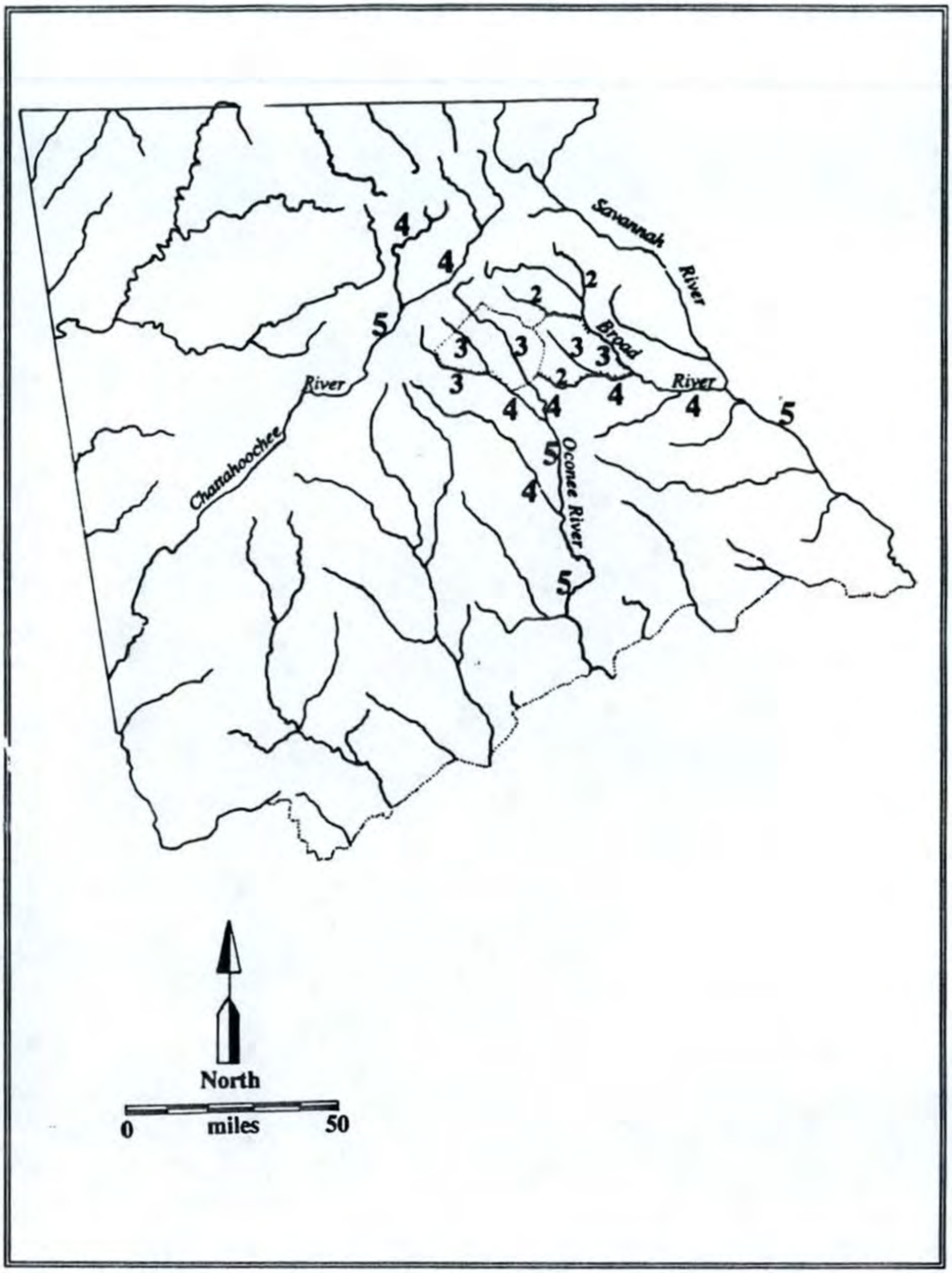


Figure 2. The location and rank of drainages in northeastern Georgia.

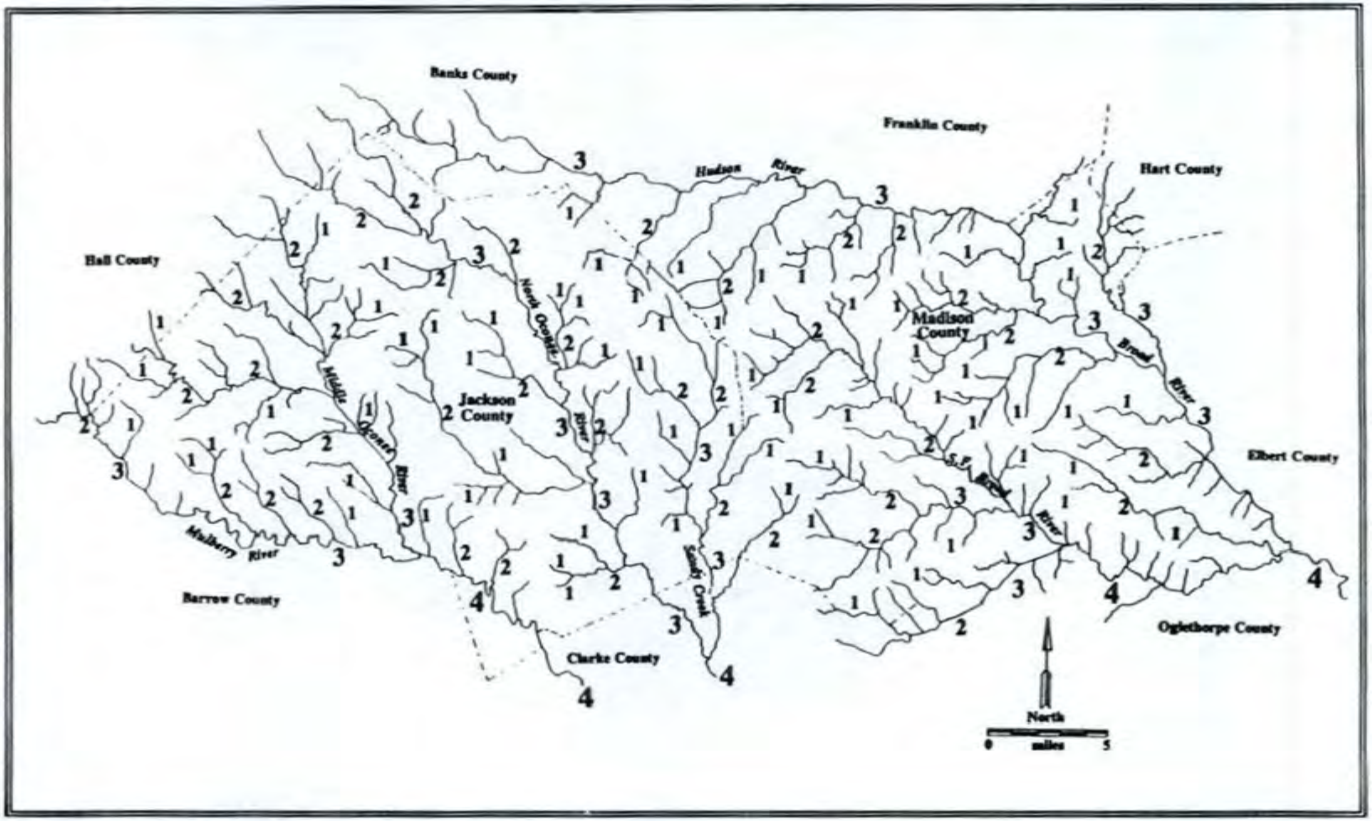


Figure 3. The location and rank of drainages in the project area.

Oconee Rivers join to form the main channel of the Oconee, also Rank 5. West of the project area, across the Brevard fault, lies the Chattahooochee (Rank 5).

The importance of shoals as a source of aquatic food resources for prehistoric populations is well documented (e.g., O'Steen 1983; Shapiro 1990). Although it is difficult to ascertain from maps or broad scale physiographic analyses, Jackson and Madison Counties appear to lack the large shoals that are found along the main channel of the Oconee River south of the project area. A visual inspection, a comparison of topographic maps (United States Geological Survey 1964a, 1972a), and the differences in stream morphology outlined above all suggest that the largest shoals in the project area, such as Hurricane Shoals on the North Oconee in Jackson County, are both shorter and narrower than similar areas to the south, such as Barnett Shoals on the Oconee River.

Soils

There are three major soil types in Jackson County. Chewacla-Toccoa soils, which are deep and poorly drained or well drained sandy loams, dominate the floodplains. Pacolet-Madison-Tallapoosa are found on slopes above these floodplains. These are shallow to deep soils typically found on narrow ridgetops and hillsides. Well drained and gently sloping Cecil-Madison soils are found on the broad interstream divides in Jackson County. Both Pacolet-Madison-Tallapoosa and Cecil-Madison soils can be generally described as sandy or clayey loams over clayey subsoil (USDA 1977).

In Madison County, Madison-Grover soils are the predominant soils on the upland stream divides. These are gently sloping, well drained soils with a sandy loam topsoil and a clayey, micaceous subsoil. Madison-Cecil-Pacolet and Toccoa-Cartecay soils are found in areas nearer to stream channels. The former are sloping to moderately steep soils that also have a sandy loam topsoil and a clayey, micaceous subsoil. The latter are a minor soil type in the county, found in level areas such as floodplains. They are poorly drained loamy alluvial soils (USDA 1979).

Comparison of soil maps of Jackson and Madison Counties (USDA 1977; USDA 1979) with those of lower Piedmont counties such as Morgan (USDA 1965) and Oconee (USDA 1968) reveals some significant differences. Jackson and Madison Counties have much less of the more productive alluvial soil types typically identified with floodplains. This difference, of course largely reflects the predominance of Rank 1, 2, and 3 streams with smaller floodplains in the project area, and the existance of larger Rank 4 and 5 streams lower in the Piedmont. Figure 4 contrasts one of the larger tracts of floodplain in the project area (on the North Oconee River near site 9JK54) with the floodplains adjacent to the Scull Shoals (9GE4) and Dyar (9GE5) mound sites along the main channel of the Oconee further south. As can be seen, the former is much smaller than the latter two areas.

Geology

The dominant rocks in both Jackson and Madison Counties are igneous and metamorphic types such as granite, sillimanite schist, mica schist, amphibolite, and biotite schist. Graphite, quartz, feldspar, and gold minerals occur in association with these rock types in some portions of the project area (Georgia Department of Natural Resources 1976). Some of the quartz outcrops are of fairly good quality, and appear to have been used by prehistoric peoples for the manufacture of stone tools. Piedmont chert outcrops, which have been identified lower in the Piedmont (Ledbetter, et al. 1981), have yet to be reported for Jackson or Madison Counties, and the lack of more substantial quantities of Piedmont chert artifacts suggests that they are probably not present.

However, several steatite outcrops have been discovered in the two counties. One of these, in central Jackson County, was identified by Ledbetter and Braley (1990). This soapstone appears to be of fairly good quality, and may have been used both prehistorically and historically (Jerald Ledbetter and Wendel Wilson, personal communication, 1993). The second outcrop, which I located in northern Madsion County, is of marginal quality and does not appear to have been utilized.

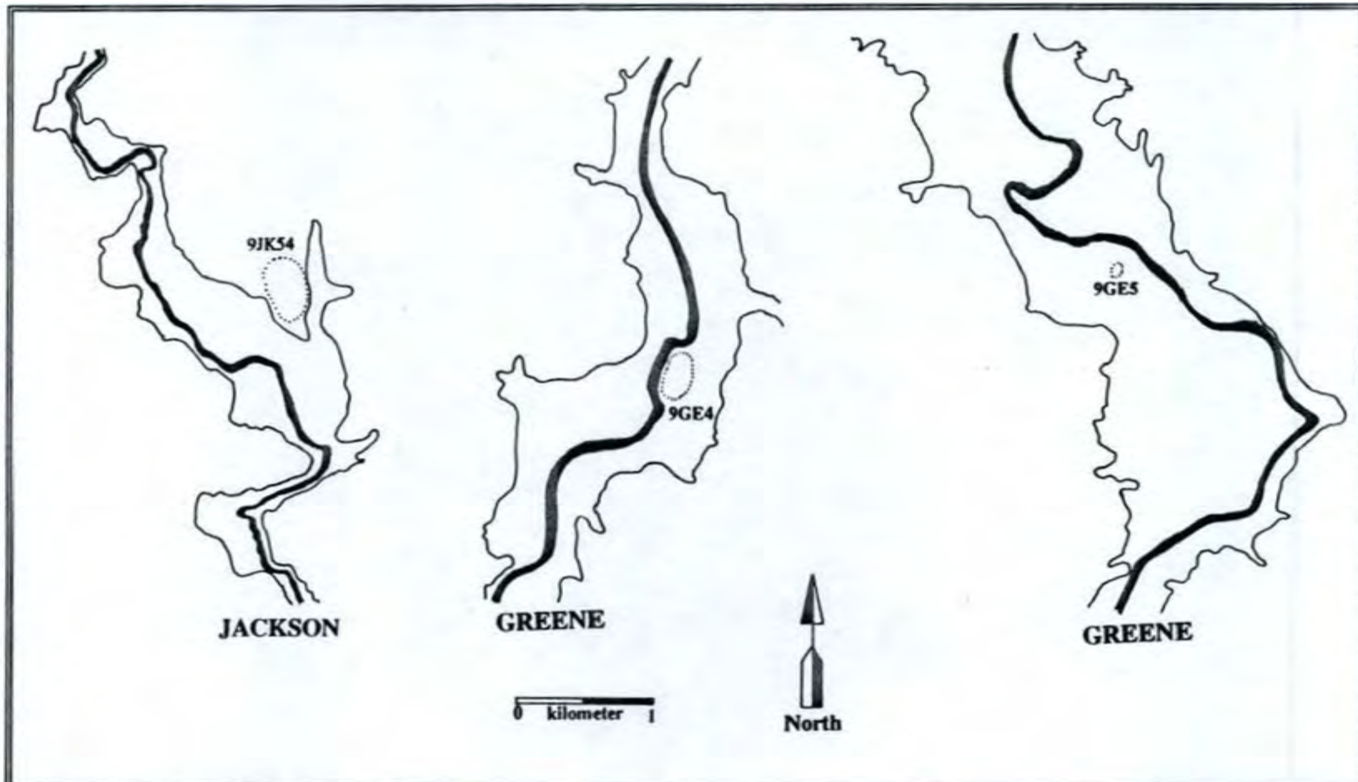


Figure 4. A comparison of the size of an alluvial area along the North Oconee River in Jackson County with areas further south along the Oconee River (based on Georgia State Site Files 1993; USGS 1964b, 1964e, 1972b, 1972e).

CHAPTER 3

HISTORY OF RESEARCH IN THE PROJECT AREA

As one previous study has noted, the region just north of the city of Athens is "a little studied area bounded by regions of extensive archaeological investigations" (Ledbetter and Braley 1990:13). Although the areas to the south, east, and west of it have received considerable attention in recent decades, the North Oconee River valley and the entire region just southeast of the Brevard Fault have gone practically unnoticed by archaeologists. A survey of the number of sites on record at the Georgia State Site Files for the counties of the northeastern Georgia area bears out this contrast (see Figure 5). Moving away from the main channels of the larger rivers into the headwaters and interstream divides, the number of recorded sites drops dramatically. Although this may, at least in part, be a result of the preference of prehistoric and early historic period peoples for habitation near major rivers, it is undoubtedly also a product of survey bias. Archaeological survey associated with the construction of reservoirs such as Lake Oconee, Lake Lanier, and Lake Russell to the south, west and east of the project area, respectively, has increased our knowledge of settlement patterns in the main channels of the Oconee, Chattahoochee, and Savannah Rivers, but has left large gaps in our knowledge of the prehistoric human geography of the region as a whole. This survey bias obscures many of the longer term settlement patterns in the area.

In order to correct some of this survey bias, I chose to survey two of the more neglected counties in the region, Jackson and Madison Counties. Prior to my survey there were 85 and 56 sites on record for these two counties, respectively. Again, as Figure 3 demonstrates, these numbers pale in comparison to those of some of their neighboring counties.

In both Jackson and Madison Counties the first few sites were recorded by Robert Wauchope (1966) in the late 1930s as part of the Works Progress Administration (WPA) Archaeology Program. Wauchope's survey of northern Georgia was a significant advance over much of the archaeology of the day, but in some cases his rather colloquial descriptions of site locations (which were typical of archaeology at the time) make his data of only limited value to a study of settlement patterns such as this one. For example, Wauchope recorded only one site in Jackson County, which he described as "Village site on the right (west) bank of the Oconee River, to the left of the highway going from Commerce to Jefferson" (Wauchope 1966:382). This site has never been relocated (Ledbetter and Braley 1990:13). Wauchope recorded three sites in Madison County, all along the South Fork of the Broad River. His description of these are of sufficient detail that they can be marked on a topographic map. Wauchope's sites will be mentioned throughout the text when appropriate.

After Wauchope's survey, Jackson and Madison Counties reverted back to archaeological obscurity. Several sources indicate that archaeologists from the University of Georgia working with the late A.R. Kelly may have visited, and perhaps even excavated, several sites within Jackson County during the 1940s or 1950s (Mike Gaines and Susan Deaver, personal communication, 1993) but there are no written records of such activities on file at the University. There is however, a fairly large collection of artifacts from several sites in Jackson County that were apparently collected by A.R. Kelly at some point. These sites are vaguely provenienced, and are discussed several times later in the text.

The vast majority of known sites in Jackson and Madison Counties have been recorded within the past two decades as a result of Cultural Resource Management (CRM) surveys. The first of these was Gordon Midgette's survey of Curry Creek in 1968 (Midgette 1968). Midgette's failure to provide maps or site forms makes his data of only marginal value (Ledbetter and Braley 1990:14). Lee (1976) and Quillian (1980) surveyed portions of Hurricane Shoals Park, an early historic period settlement in Jackson County. Several surveys have been conducted on proposed watershed areas and stream bank modifications of the Oconee River and some of its smaller tributaries. These include the studies of Jeffries and Hally (1975a, 1975b); Crusoe (1976); Wood and Hally (1976); and Jeffries, Lee, and Fish (1978). Price (1989) conducted a survey for a proposed wastewater treatment facility near the city of Jefferson. The few CRM surveys to be conducted in Madison County to date have predominantly been surveys of small corridors that identified only a few sites. These include studies by Garrow (1978), Barber (1979), Meyer (1988), and Southerlin (1992). Similar small surveys in Jackson County have been undertaken by Barber (1979), Webb (1981), Bloom (1989), and Braley (1990).

Although I consider the sites identified by the aforementioned CRM surveys, the settlement data compiled by two previous studies in the project area will figure more prominently in this thesis. The first of these is a survey conducted by Ledbetter and Braley (1990) for a proposed reservoir in Jackson County. The sites recorded on this project have been incorporated with my own survey data to form the database used in this thesis. The other previous research to be considered in more depth in this thesis is a survey of 200 hectares in Madison County by Price and Wood (1989). The data generated by this survey is important to my research both because it fills a geographical gap in my coverage of the project area (the south-central portion) and because it identified some of the only known Paleo Indian/Early Archaic Dalton components in the project area (to be discussed in Chapter 6). Although I had originally hoped to also include this survey in my database, I was unable to obtain access to the artifacts. Since I was unable to apply the same classification standard to the Price and Wood data, I could not include the survey in my data base. Nevertheless, I will refer to the results of this survey when they become particularly relevant.

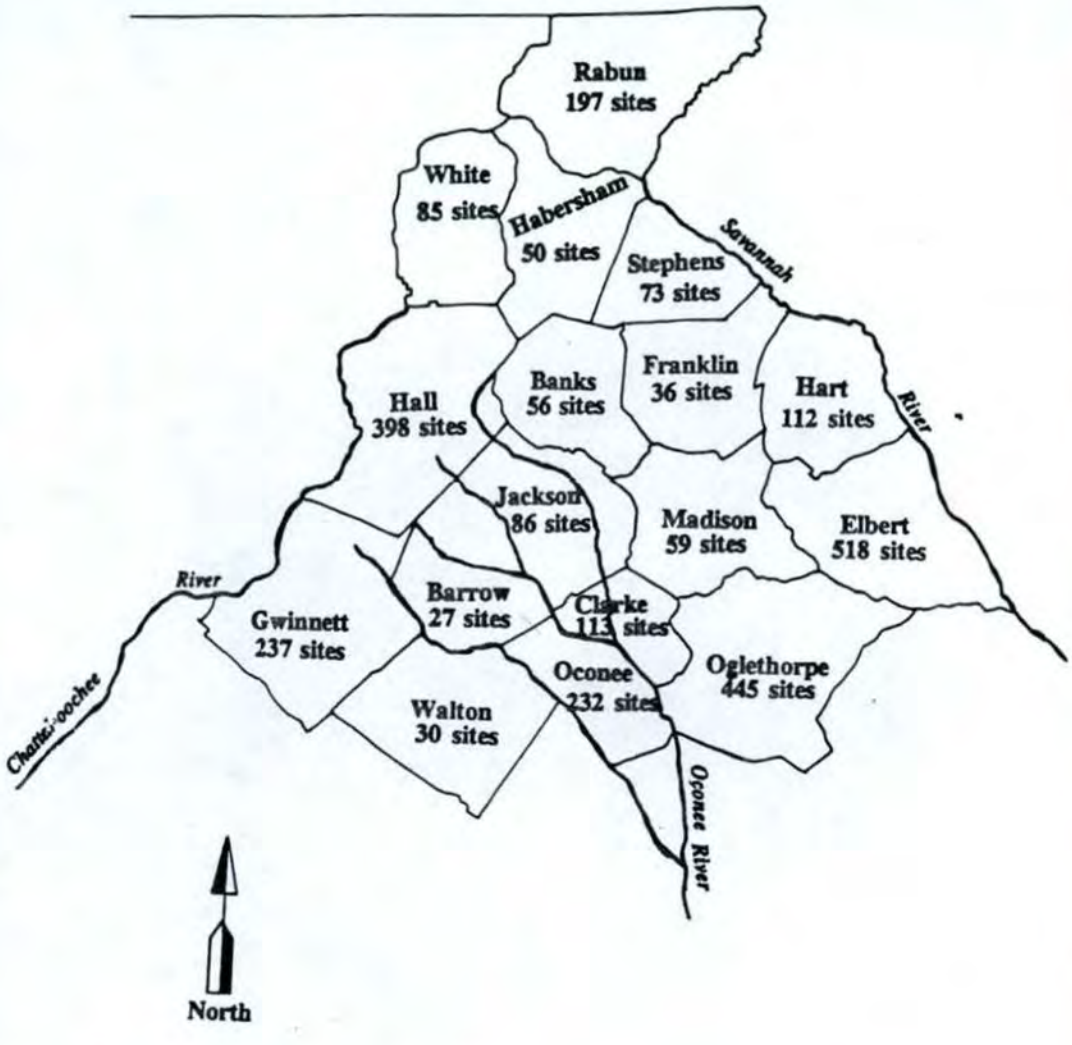


Figure 5. Map of northeastern Georgia counties displaying the number of sites on record in each county prior to this study (Georgia State Site Files, February 1993).

CHAPTER 4

METHODS, TECHNIQUES, AND BIASES

The Archaeological Database

Methods

The dense vegetation and buried cultural materials of the Georgia Piedmont often make archaeological survey in the area difficult and unproductive. Survey projects that rely on shovel-testing and sub-surface recovery to identify sites often meet with only limited success in such environments (Fish and Gresham 1990:147-172; Freer 1989:4; Shott 1989:396-404).

Although it can be destructive to both ecological and archaeological resources, the soil disturbance associated with logging facilitates the identification of archaeological sites by removing vegetation and bringing artifacts to the surface. Therefore, I conducted a systematic archaeological survey of 14 timber clearcuts in the study area using an opportunistic, full-coverage design similar to that of Rodeffer, Holschlag, and Cann (1979); Freer (1989); and Fish and Gresham (1990).

The original aim of this project was to survey a sample of clearcuts that reflected the geographic and environmental variability of the project area. It quickly became apparent, however, that my study of prehistoric settlement and land use in Jackson and Madison Counties was being constrained by the particularities of contemporary land use. At the time of my survey, clearcuts in these two counties were generally small, averaging only 57.2 hectares, and were largely restricted to the uplands away from the larger river valleys. In light of this fact, I soon realized that I would have to expand my sample to include more than these clearcuts alone.

In order to have a larger and more representational database with which to discuss prehistoric settlement in the area, I have incorporated settlement data from the North Oconee Reservoir Project (Ledbetter and Braley 1990) with my own survey data. This survey, conducted by Southeastern Archeological Services, Inc., covered selected landforms along sections of the North Oconee River, Little Curry Creek, and Bear Creek. These are some of the largest streams in the project area. The areas surveyed as part of the North Oconee Reservoir Project are shown together with the timber clearcuts I surveyed on Figure 6.

Although not a full coverage survey, the settlement data compiled for the North Oconee Reservoir Project provides a good sample of riverbottom sites in the project area. As later chapters will illustrate, the data from this survey contrasts sharply with that accumulated by my survey of predominantly upland areas. I believe that the combination of these two databases provides a sample of sufficient size and geographic diversity as to be considered representational of the project area as a whole.

Settlement data from my survey and from the North Oconee Reservoir Project together comprise what could be considered the more "formal" part of my database. However, other settlement data was also collected from the Georgia State Site Files, and from conversations with artifact collectors in the project area. In several cases the data from these sources provided additional important information on settlement.

The formal, or systematic survey portion of this project complements similarly designed survey projects in the Oconee Valley and the area to its east (Fish and Gresham 1990:147-172; Freer 1989). A sustained commitment to the archaeological survey of Piedmont clearcuts by this and future projects will eventually result in a full-coverage survey of the region.

Techniques

Archaeological sites were identified from surface scatters of artifacts by survey teams of one to three individuals walking transects spaced 30-50 meters apart. I defined a prehistoric site as any three or more flakes in close association. I also considered the presence of a single lithic tool, prehistoric ceramic, or flake of non-local material to be indicative of a site, even if these were isolated artifacts. Due to the ubiquity of historic artifacts in plowed fields, I defined a historic site as five or more artifacts in close association. Artifacts less than fifty years in age were not included. Artifact scatters separated by thirty or more meters were considered separate sites.

When a site was identified, I collected and bagged all surface artifacts, made a sketch map, and recorded all important site and environmental information (e.g., the types of soils and vegetation, type of landform, proximity to resources, modifications of the landscape, etc). On sites with a very high artifact density, such as prehistoric lithic quarries and historic trash piles, I sampled the artifacts instead of making a total collection. In these cases, I made an effort to collect a representative sample of artifacts types or to note any biases I thought might be present in the collection.

Artifacts were washed and analyzed using the facilities of the University of Georgia Laboratory of Archaeology. The type of material was noted for all lithic artifacts. Lithic debitage, defined as the flaked stone artifacts that are a product of stone tool production, was analyzed for a number of attributes. Typically, archaeologists classify debitage into production stages (primary, secondary, and tertiary) on the basis of specific morphological characteristics. However, by far the most predominant material in the project area is quartz, which usually lacks the distinctive fractures and obvious cortex that make this type of analysis useful. Therefore, I chose to classify debitage primarily by size. Quartz and metavolcanic debitage, materials for which it is difficult to discern the presence or absence of cortex, were classified as less than 1 cm, between 1 and 3 cm, or greater than 3 cm. Chert debitage, on which cortex is easily identified, was classified as cortical less than 4 cm or greater than 4 cm, and non-cortical less than 1 cm, between 1 and 3 cm, or greater than 3 cm. I assume that the size of debitage and the presence or absence of cortex are indicative of the stage of tool production at which the flakes were produced. Small flakes without cortex are assumed to be the product of the final stages of tool production, or of tool maintenance. Larger flakes without cortex and small flakes with cortex are assumed to a product of intermediate stages of tool production. Large flakes with cortex are assumed to be products of the early stages of tool production.

All debitage was analyzed for the presence of use-wear, or small fractures along the edge that would be a result of scraping and cutting. Flakes which exhibited such wear were classified as utilized flakes. Utilized flakes can be considered "expedient" tools. Formal prehistoric lithics are those which exhibit definite hafting elements on the base, such as projectile points/knives, as well as unifacially and bifacially reduced tools. Projectile points/knives generally fall into well established typologies and chronologies such as those defined by Coe (1964) and Cambron and Hulse (1975). By comparing the formal tools recovered on this survey to these chronologies, I was able to assign sites to specific temporal periods. Similarly, prehistoric ceramics were classified into types and periods such as those defined by Wauchope (1966) and Williams and Shapiro (1990) on the basis of their temper and surface treatment.

For comparative purposes, I have compiled archaeological component data from a number of large surveys in the Piedmont. The locations of these large survey areas are indicated in Figure 7. For Lake Oconee (the Wallace Reservoir), I used Gresham's (1987) summary of the full-coverage survey of the region. For Lake Lanier (Buford Reservoir) and Lake West Point, I relied on Rudolph's (1989; 1982) reports of the shoreline surveys of these two areas. Clearcuts in Oglethorpe County were surveyed by Freer, and I used her thesis (1989) as a source for that area. Finally, for survey data from the Russell Reservoir, I relied on Anderson and Joseph's (1988) overview of the archaeology in the region.

In order to compare the results of these surveys, it was necessary to condense or discard some of the finer temporal divisions used in a few reports (e.g., "Early to Middle Archaic") into the more standardized general prehistoric periods, such as Early Archaic, Middle Archaic, etc. Obviously, then, the figures I present are estimates of the results of these surveys, and are used only to illluminate broad similarities and contrasts across the region.

In each chapter, I have listed the sites that contain components dating to the period in question. Also listed are the size of the site, the types of lithics present on the site, the topographic setting, the rank of the nearest stream, and an indication of the density of artifacts on the site (with totals of 0-30 artifacts classified as "low", 30-60 artifacts as "medium", and 60 or more artifacts as "high").

Biases

As with any endeavor, a number of biases pervade this thesis, and should be articulated at the outset. First, although I phrase my discussion to include all of both Jackson and Madison Counties, my archaeological coverage is focused primarily on central and eastern Jackson County and central and western Madison County. Thus, my results and conclusions may be representative only of this region, rather than of the two counties as a whole.

Poor land use practices in the nineteenth and twentieth centuries created a great deal of erosion in the Georgia Piedmont (Trimble 1969), and this has undoubtedly had an adverse effect on the accuracy of archaeological survey in the region. Many sites in riverine locations have been buried by sediment, and many on the ridge tops have been eroded. I have attempted to note when artifacts may have been redeposited, but my sample is certainly biased by the fact that some sites remain undetected.

If my survey tracts have been surface collected prior to my fieldwork (a distinct possibility), the samples of lithics presented in this thesis could also be skewed. Amateur archaeologists rarely collect anything but formal tools, but this alone could introduce bias into my collection.

Finally, my artifact classifications have been biased both by subjectivity and by the occasional inadequacies of established chronologies and typologies. Most of my assignments are based on inferences from other parts of the Southeast, and this could be a problem in some cases. However, I have noted these problems in my discussions in instances where I feel they have become acute.

The Historic Database

Methods, Techniques and Biases

Obviously, the sites found in clearcuts do not present an unbiased view of either contemporary or historic settlement and land use. Therefore, although the sites identified through archaeological survey in the project area are considered in my discussion of these periods, it was necessary to supplement this data with information gleaned from additional sources. For the early historic period these sources included county histories, maps and land plats, and censuses and registers. In addition, whenever possible the narratives of early travelers of the Georgia Piedmont are also used to help reconstruct past landscapes. For the study of twentieth century settlement and land use patterns I relied largely on demographic and soil studies of Jackson and Madison Counties.

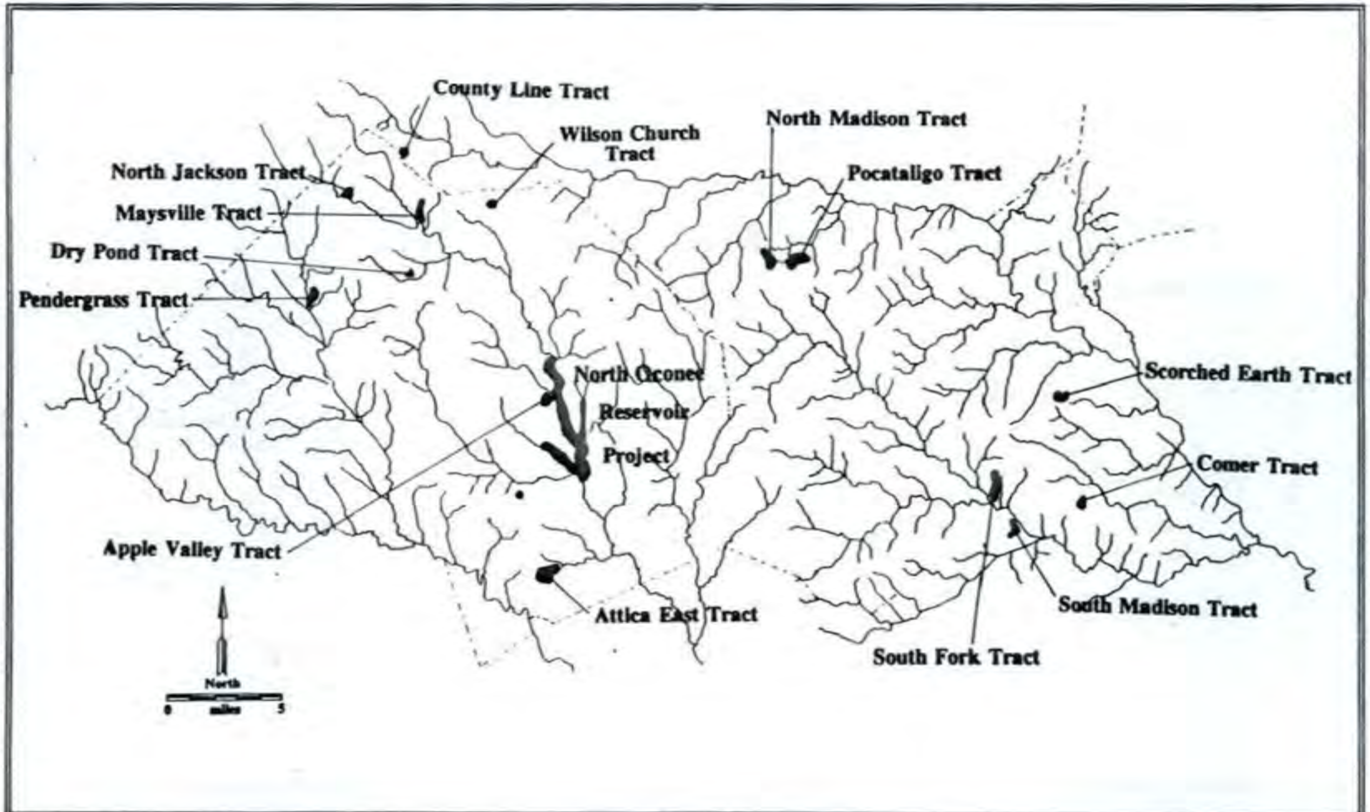


Figure 6. Archaeological survey tracts in the project area.

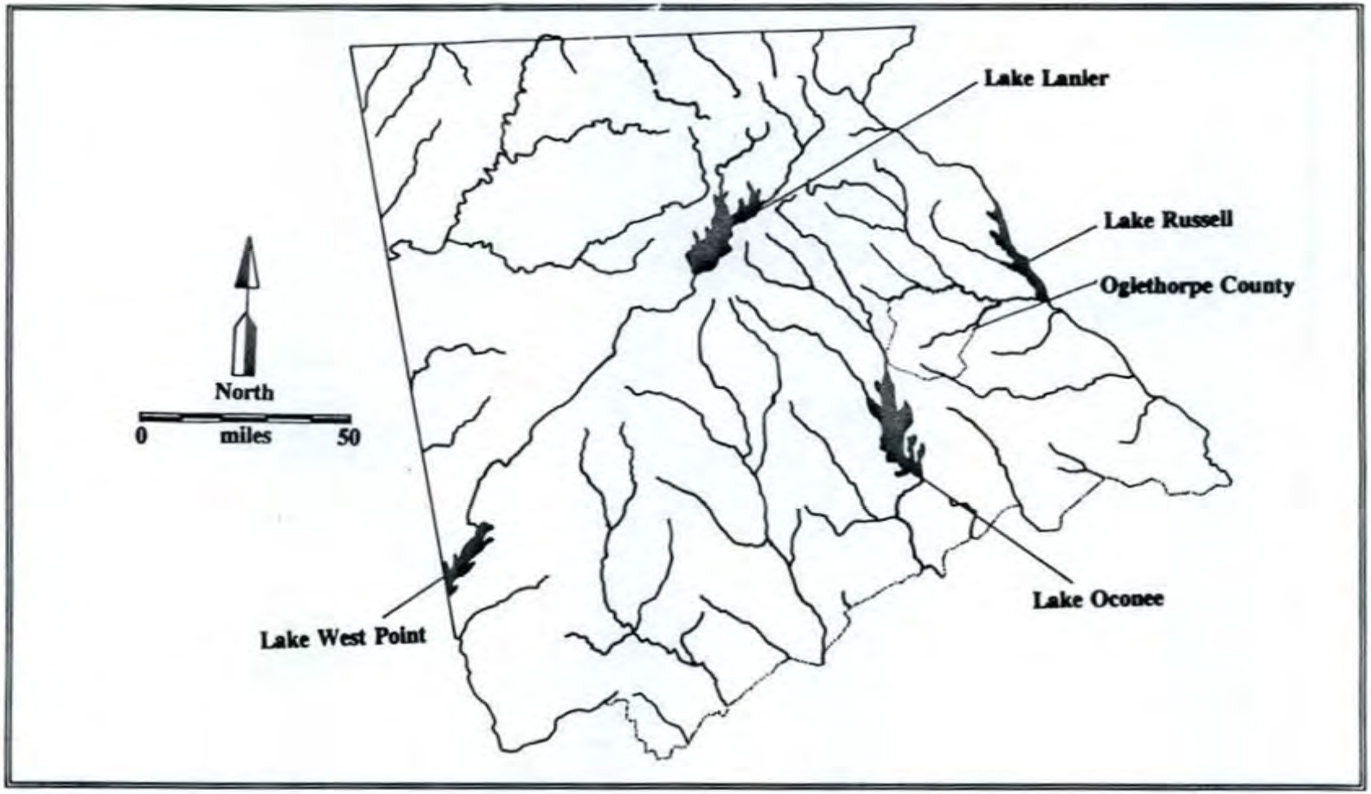


Figure 7. Map of northern Georgia displaying the location of Piedmont archaeological surveys used for comparison in this thesis.

CHAPTER 5

DESCRIPTIONS OF THE SURVEY AREAS

In order to study prehistoric settlement and land use in Jackson and Madison Counties, I conducted a systematic archaeological survey of fourteen timber clearcuts in the study area (Figure 6). These survey areas had a combined size of 800.4 hectares. The eight survey areas in Jackson County totaled 490.6 hectares, and the six survey areas in Madison County totaled 309.8 hectares. For easier reference, I have named these survey tracts. Table 1 is a list of the tracts that were surveyed as part of this project. This table also describes the size, number of sites identified, and site density of each survey tract. All of the tracts were between February and May 1993. In order to describe the survey conditions, I have estimated the amount ground surface that was visible in a typical one meter square. A description of the survey conditions and a general sketch of the topographic features of each survey area follows.

Survey Areas in Jackson County

The Attica East Tract

At 108.8 hectares, the Attica East Tract was the largest total coverage survey tract in the project area. At the time of this survey, the clearcut had been recently replanted in pines. On the whole, surface visibility was very good (approximately 80-

Table 1. List of the Areas Surveyed for this Project, Including Their Size, Number of Sites, and Site Density.

Survey Areas in Jackson County

Tract	Size (hectares)	Number of Sites	Site Density (sites/km^2)
Attica East	108.8	17	15.6
Apple Valley	60.0	8	13.3
Dry Pond	32.2	2	6.2
Pendergrass	53.3	4	7.5
North Jackson	47.6	10	21.1
County Line	30.1	3	10.0
*Maysville	142.0	8	5.6
Wilson Church	16.6	1	6.0
Total	490.6	53	-
Average	61.3	6.6	10.8

Survey Areas in Madison County

Tract	Size (hectares)	Number of Sites	Site Density (sites/km^2)
South Madison	47.8	8	16.7
Comer	39.7	5	12.6
Pocataligo	81.7	7	8.6
Scorched Earth	43.8	6	13.7
South Fork	33.6	7	20.8
North Madison	63.2	13	20.6
Total	309.8	46	-
Average	51.6	7.7	15.5

*Less than total coverage survey due to vegetation.

90 percent), although exposure was considerably reduced in some areas due to downed trees.

Adjacent to and east of U.S. Highway 129, the Attica East Tract is located on the broad ridge that separates the North and Middle Oconee River drainages. One unnamed, Rank 1 stream bisects the tract into northern and southern halves, and flows east about 5 kilometers where it joins the North Oconee River. From a high knoll (274m) to the lower elevations of this small creek (226m), there is approximately 49 meters of topographic relief. Much of the slope has been terraced for agriculture. Soils on the upper elevations are generally classified as being of the Cecil-Madison Association, which are well drained, gently sloping or sloping soils typical of broad interstream divides. Soils on the lower elevations near the creek are of the Pacolet Madison Association, which are well drained soils typically found on slopes and hillsides (USDA 1977).

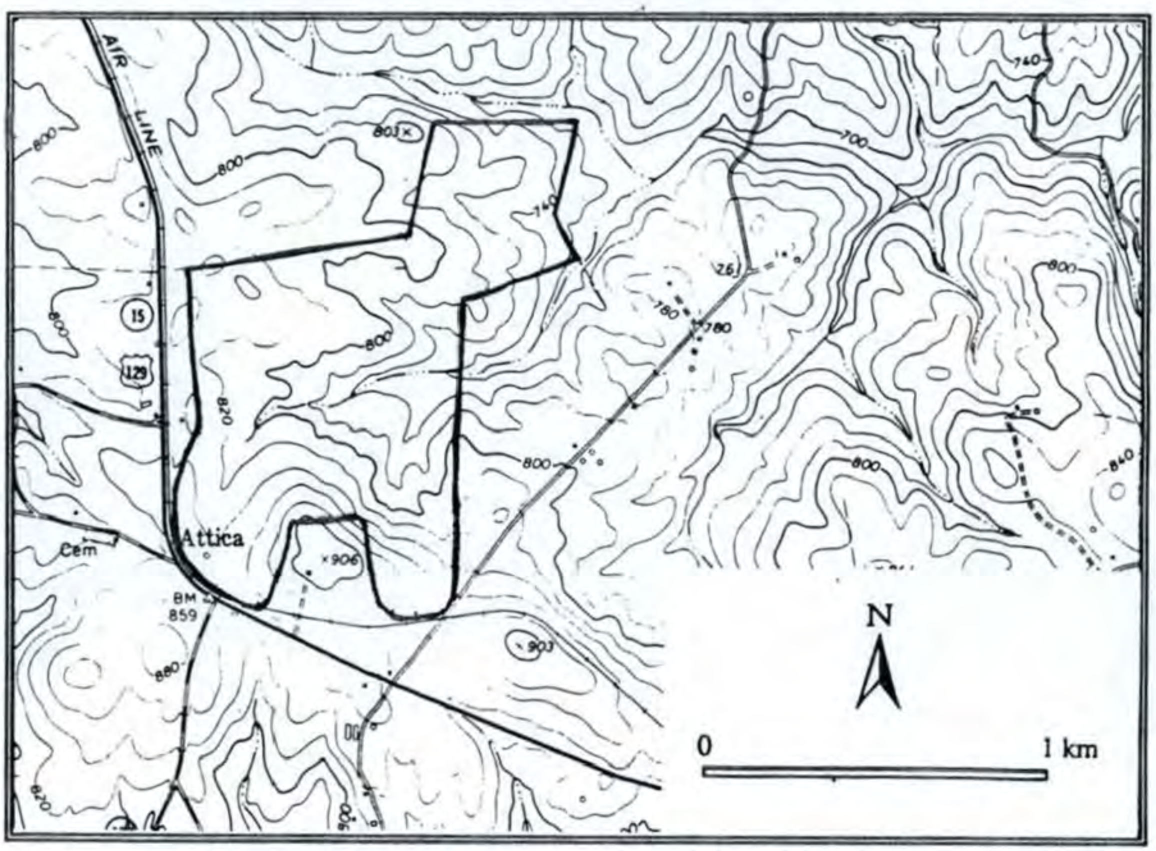


Figure 8. The Attica East Tract (USGS 1964e).

The Apple Valley Tract

The Apple Valley Tract is composed of about 60 hectares in central Jackson County. The survey area borders a broad swampy area at the confluence of Park's Creek (Rank 2) and the North Oconee River (Rank 3). In addition, a small, Rank 1 stream flows north through the tract into this wetland. The tract extends from a relatively high ridge top (250 meters), down several ridge spurs to a low bench just above the swampy area (207meters). Thus, there is about 43 meters of topographic relief in this area. Soils in the clearcut are also the well drained, sloping variety typical of the Pacolet-Madison Association (USDA 1977).

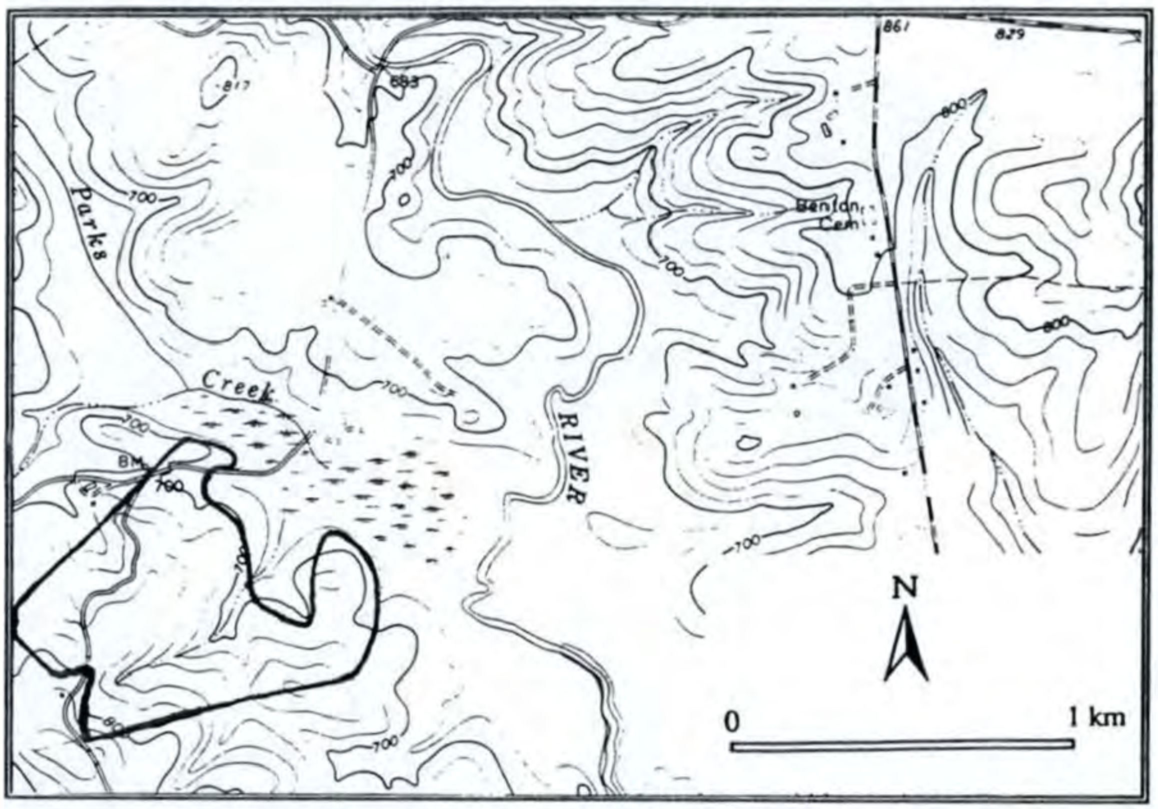


Figure 9. The Apple Valley Tract (USGS 1964a).

The Apple Valley Tract was replanted in 1990. As a result, visibility was patchy, and was limited to an average of approximately 50 percent. Some of the lower elevations of the clear cut had to be excluded from the survey due to the degree of vegetation and lack of visibility.

The Dry Pond Tract

Consisting in large part of highly eroded ridge slope, the Dry Pond Tract could be described as physiographically marginal. This wedge-shaped tract consists almost entirely of steep to moderately steep slope that drops 37 meters in a fairly small area. The tract extends from a high point of 274 meters to a low of 238 meters near an unnamed, Rank 2 stream. These slopes have been terraced for agriculture and are fairly rocky. Once again soils in the area are of the Pacolet-Madison Association (USDA 1977).

The Dry Pond Tract had been recently cut but not yet site prepared at the time of this survey. As a result, survey conditions can best be described as fairly good but spotty, with an average visibility of about 60 percent.

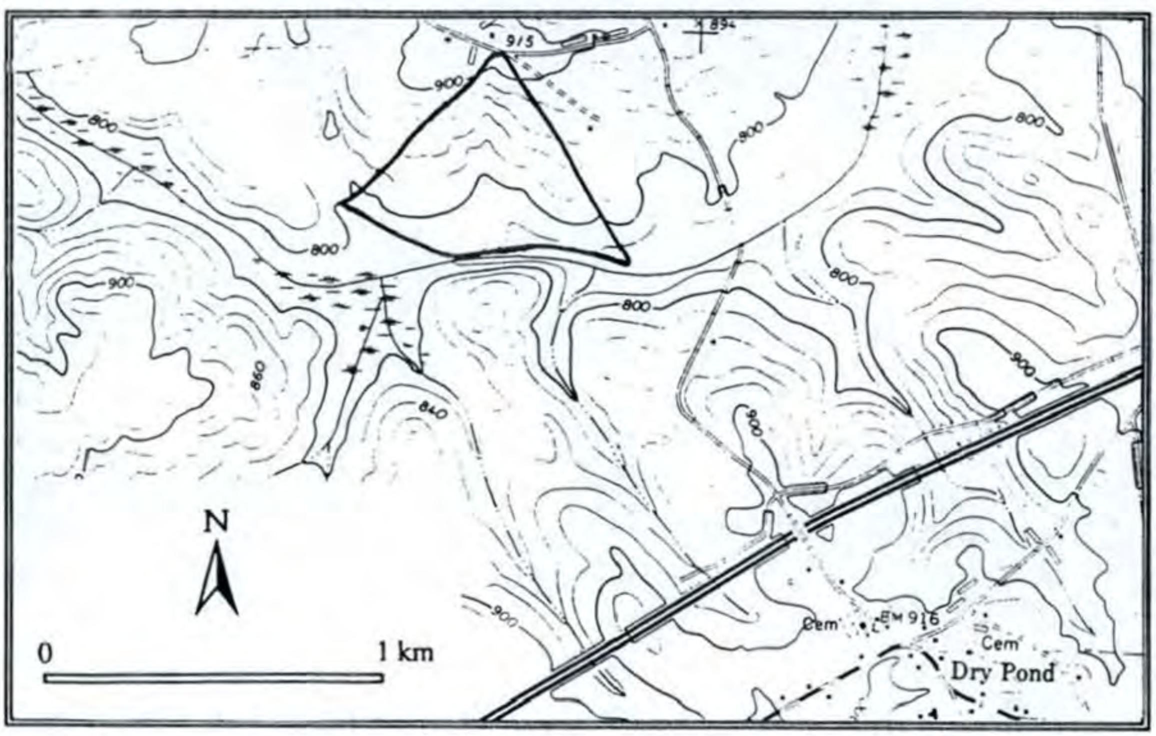


Figure 10. The Dry Pond Tract (USGS 1964f).

The Pendergrass Tract

The Pendergrass Tract is located in northwestern Jackson County. The survey area includes one high ridge system between Pond Fork Creek (a Rank 2 stream) and one of its small tributaries (Rank 1). About 3 kilometers south of the survey area Pond Fork Creek joins Opposum and Allen Creeks to form the Middle Oconee River.

The clearcut contains some very steep slopes that reflect about 49 meters of relief. The high point, at 274 meters, is a ridge top knoll. The lowest points are along the creeks, and lie at about 226 meters. Soils in the Pendergrass Tract are also of the Pacolet-Madison Association (USDA 1977). This tract was severely eroded, to the point of exposed bedrock in many areas.

The Pendergrass clearcut was replanted in 1991 and has since grown over to some extent. Therefore, visibility on the tract was limited to an average of only about 50 percent. While most of the ridge tops and ridge noses had good visibility, much of ridge slope and many of the lower areas were quite over-grown.

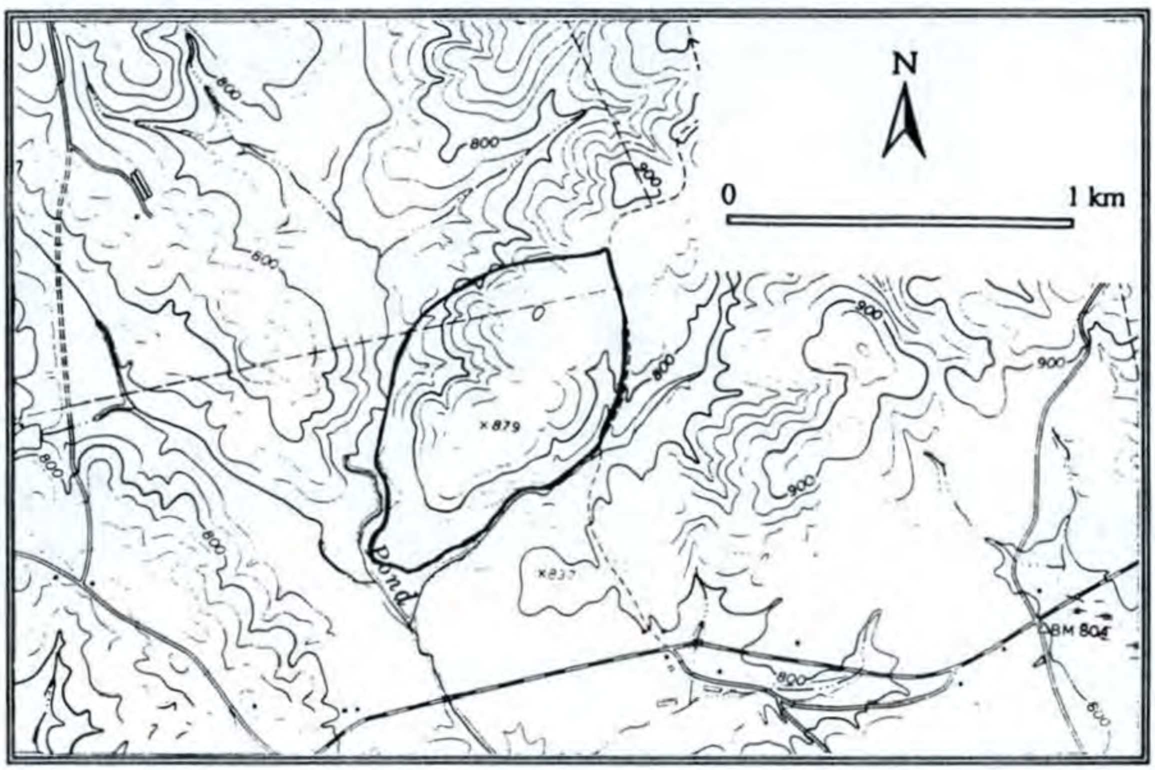


Figure 11. The Pendergrass Tract (USGS 1964f).

The North Jackson Tract

The North Jackson Tract is located in the extreme northern portion of Jackson County along a stretch of the North Oconee River (Rank 3). The roughly circular tract rises from an elevation of 244 meters at the river to 274 meters on a ridge top. Here too soils are of the Pacolet-Madison Association, with the exception of some of the small cleared areas near the river, which are best classified as Chewacla-Toccoa Association soils. These are "somewhat poorly drained and well drained, nearly level" soils typical of level areas such as floodplains (USDA 1977).

At the time it was surveyed, this tract had been very recently cut and replanted. As a result, surface visibility was excellent (approximately 90 percent).

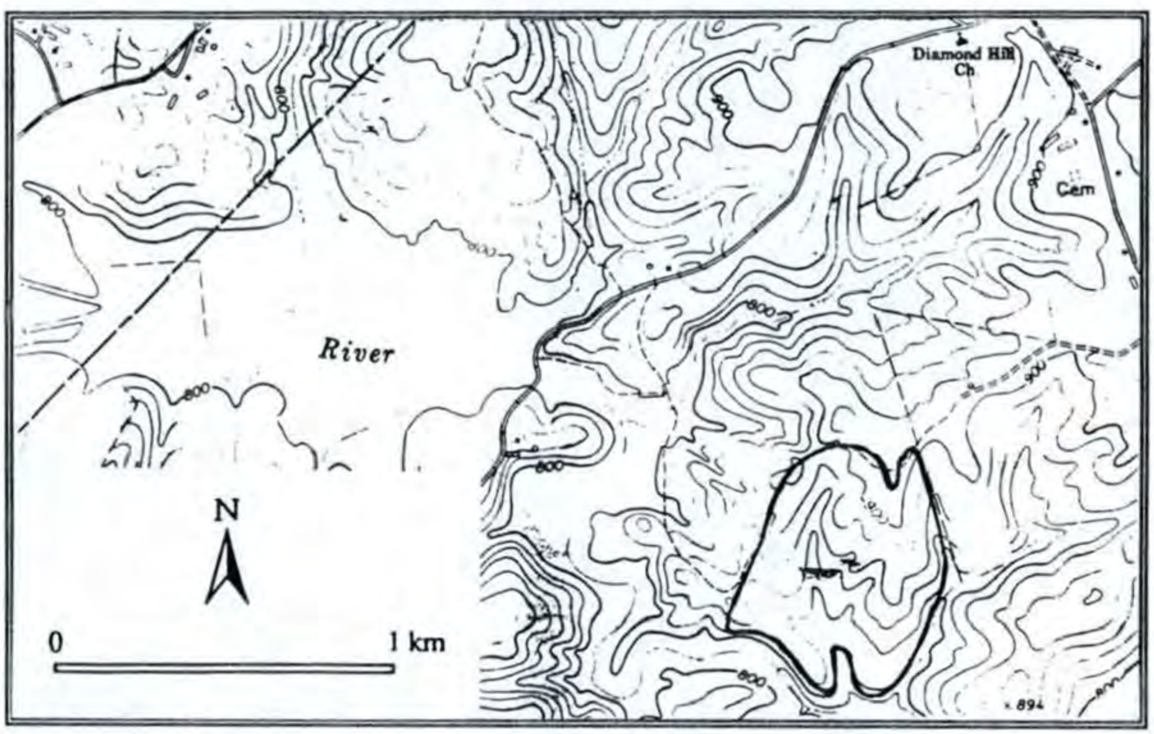


Figure 12. The North Jackson Tract (USGS 1964a, 1964e).

The County Line Tract

The County Line Tract lies to the east of and adjacent to Georgia Highway 52 and a Southern Railway right of way. Both these two transportation lines and the survey tract itself are on a ridge that separates the Broad River and Oconee River drainage systems, as well as Jackson and Banks Counties. Although the clearcut is actually located just across the county line in Banks County, it is included here because of its proximity to Jackson County and because arbitrary county divisions are largely to studies of prehistory such as this one.

Several ridge top knolls in the County Line Tract reach an altitude of 287 meters. The lowest point is in a slough at an elevation of 244 meters. There is a great deal of topographic relief but no permanent water sources in the clearcut itself. Soils in the County Line Tract are of the Cecil-Madison Associatiion (USDA 1977). At the time of this survey, the tract had been cut but not "site prepared" (raked inpreparation for planting). This resulted in good (75 perecent) visibility overall, despite numerous piles of logging debris.

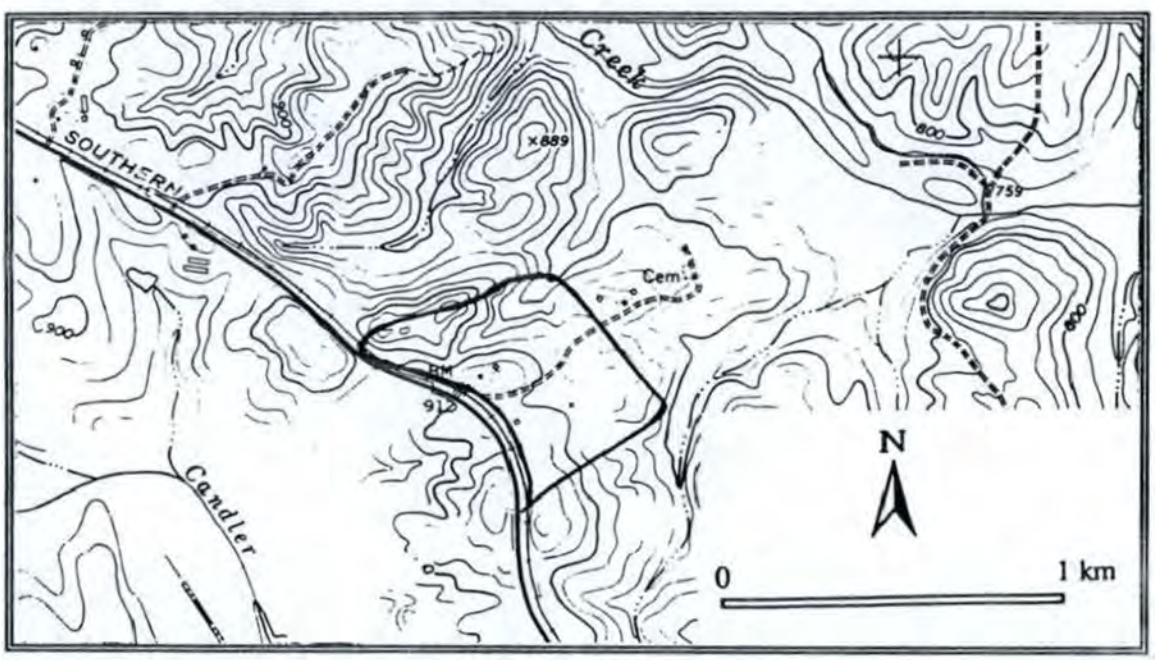


Figure 13. The County Line Tract (USGS 1964d).

The Maysville Tract

The Maysville Tract is situated just southwest of the Maysville city limits. The 142 hectare tract is on the same broad ridge as the County Line Tract, but on the west, or North Oconee River side. The tract extends from a ridge top knoll, which at 293 meters was the highest point in any of the clearcuts, down several ridge spurs to the confluence of Candler Creek (Rank 2) and the North Oconee River (Rank 3), where it reaches its low point at 232 meters. In addition, there are several unnamed Rank 1 streams in the tract.

Three soil types are represented in the Maysville Tract. On the upland portion, Cecil-Madison soils are predominant. Pacolet-Madison and Chewacla-Toccoa soils are found on the hillsides and floodplains, respectively (USDA 1977).

Having been clearcut about three years before this survey, the Maysville Tract was largely overgrown by briars, scrub oak, and young pines. As a result, I could not extend full-coverage to this area. Instead, survey was restricted to the numerous roads, fire breaks, and open patches.

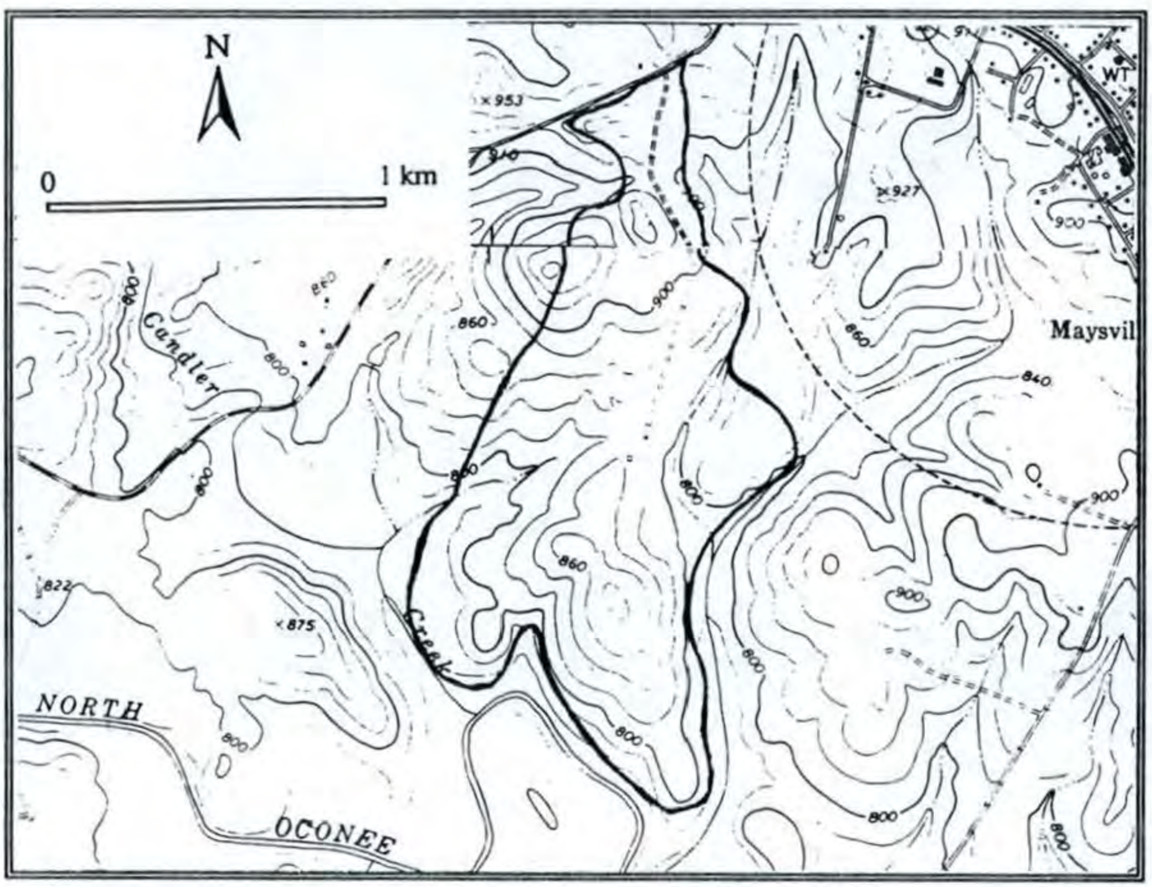


Figure 14. The Maysville Tract (USGS 1964a, 1964d).

The Wilson Church Tract

At 16.6 hectares, the Wilson Church Tract was the smallest area surveyed for this project. Adjacent to and east of Highway 98 and the Southern Railway right of way, this tract also lies on the ridge that separates the Oconee and Broad River drainages. The tract is predominantly ridge slope that extends from this ridge top, at an elevation of 274 meters, to a bench above a small unnamed Rank 1 stream, at an elevation of 238 meters. Soils in the tract are of the Cecil-Madison Association, which are typical of interstream divides such as this one (USDA 1977).

At the time it was surveyed, the Wilson Church Tract had been relatively recently cut, but not site prepared. As a result, surface visibility was quite good in most areas, although there were many downed trees and piles of logging debris in other areas.

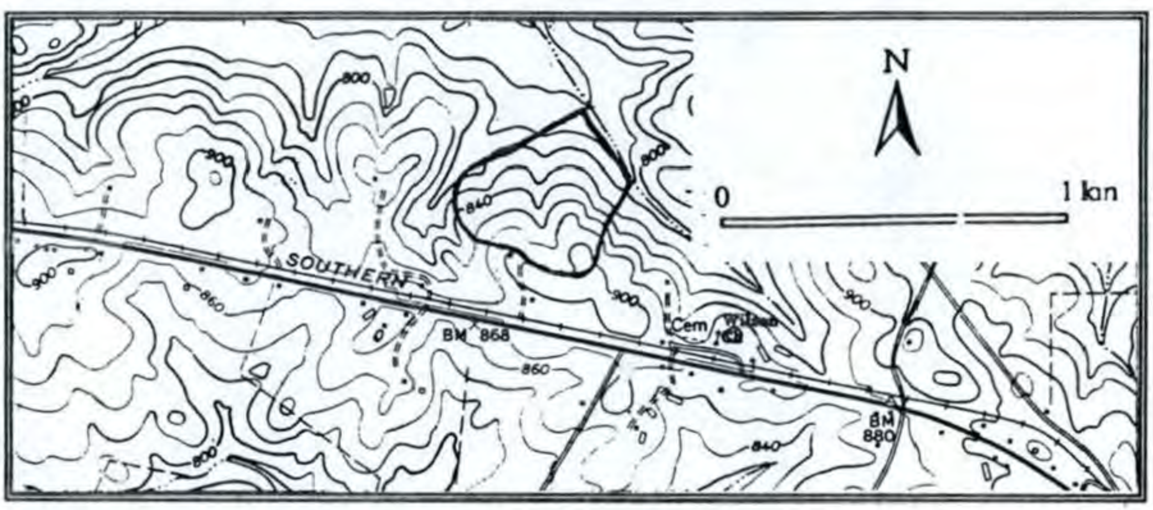


Figure 15. The Wilson Church Tract (USGS 1964a).

Survey Areas of Madison County

The South Madison Tract

Southwest of Comer, the South Madison Tract consists of a series of ridge spurs and a terrace above the floodplain of the South Fork of the Broad River (Rank

3). Elevations in the clearcut range from 207 meters to 171 meters, for 37 meters of relief. Soils in the clearcut are of the Madison-Grover Association, which are generally gently sloping and well drained (USDA 1979). There are, however, some fairly steep slopes in the tract. There are also several outcrops of good quality quartz in the clearcut.

Surface visibility in the South Madison Tract was good overall, but ranged from excellent (90 percent) on the ridge noses and slopes to poor (40 percent) on the terrace. Reduced visibility on this lower elevation was a product of vegetation and downed trees.

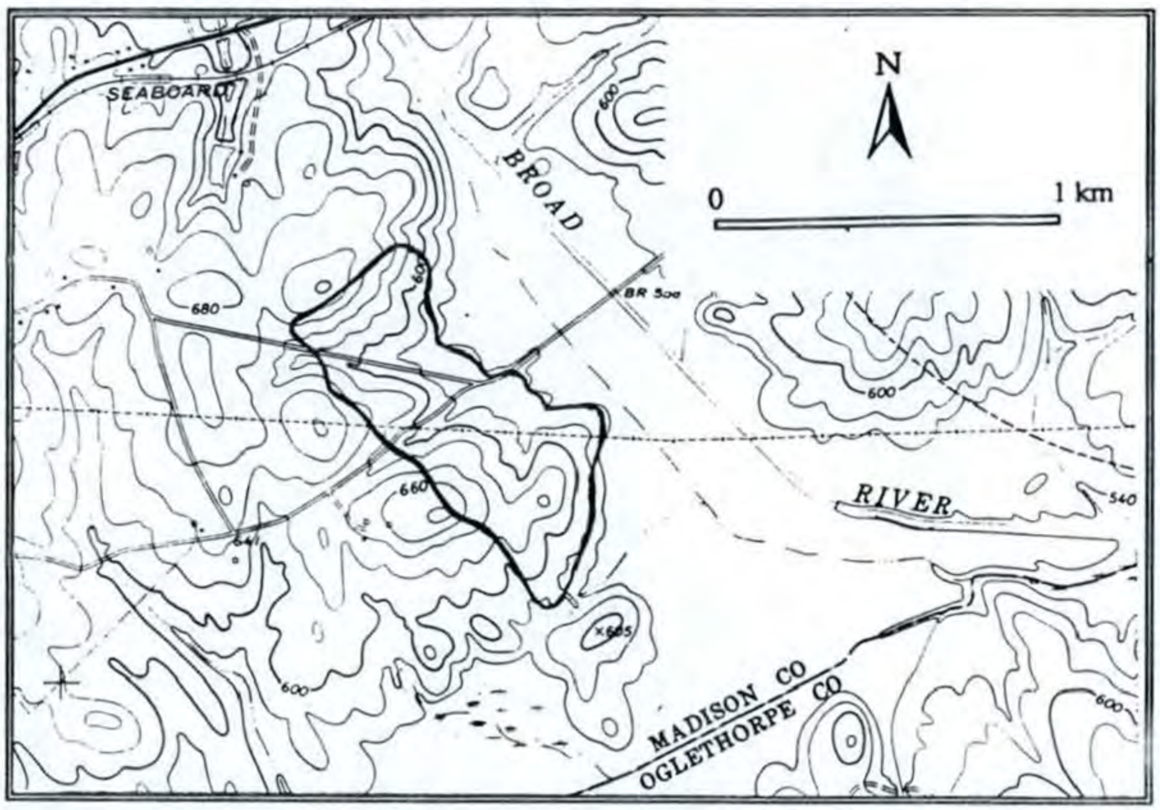


Figure 16. The South Madison Tract (USGS 1972d).

The Comer Tract

The Comer Tract lies just northwest of the Comer city limits on a broad, flat, upland ridge. This ridge appears on the USDA soil map as a well defined area of

Cecil-Gwinnett-Appling soils. These are well drained, very gently or gently sloping soils (USDA 1979). Indeed, within the clearcut there is only about 15 meters of topographic relief (from 210 meters to 195 meters). There are only two, very small intermittent drainages within the survey tract.

At the time of this survey, the Comer Tract had been recently cut. Surface visibility averaged approximately 75 percent due to fallen trees and logging debris, however.

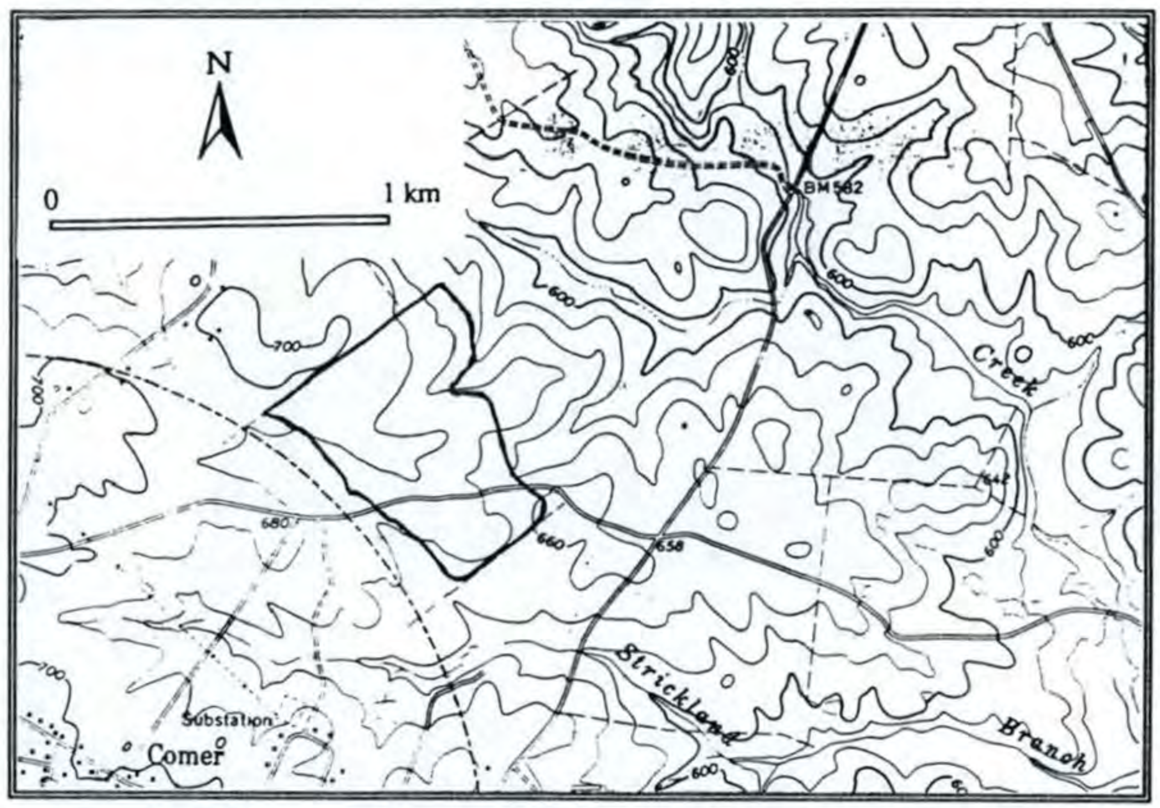


Figure 17. The Comer Tract (USGS 1972c).

The Pocataligo Tract

Situated in the northwestern portion of Madison County, the Pocataligo Tract contains more relief than any other clearcut surveyed on this project. From a high point of 271 meters, the tract drops, sometimes very dramatically, to a low point of 207 meters along an unnamed Rank 2 stream. This stream forms from several

Rank 1 streams within the tract. Soils in the clearcut are of the Madison-Cecil-Pacolet Association, which are generally "sloping to moderately steep" (USDA 1979). Soils in the clearcut were fairly rocky. On the whole surface visibility within the Pocataligo Tract was good (80 percent), but conditions were highly variable.

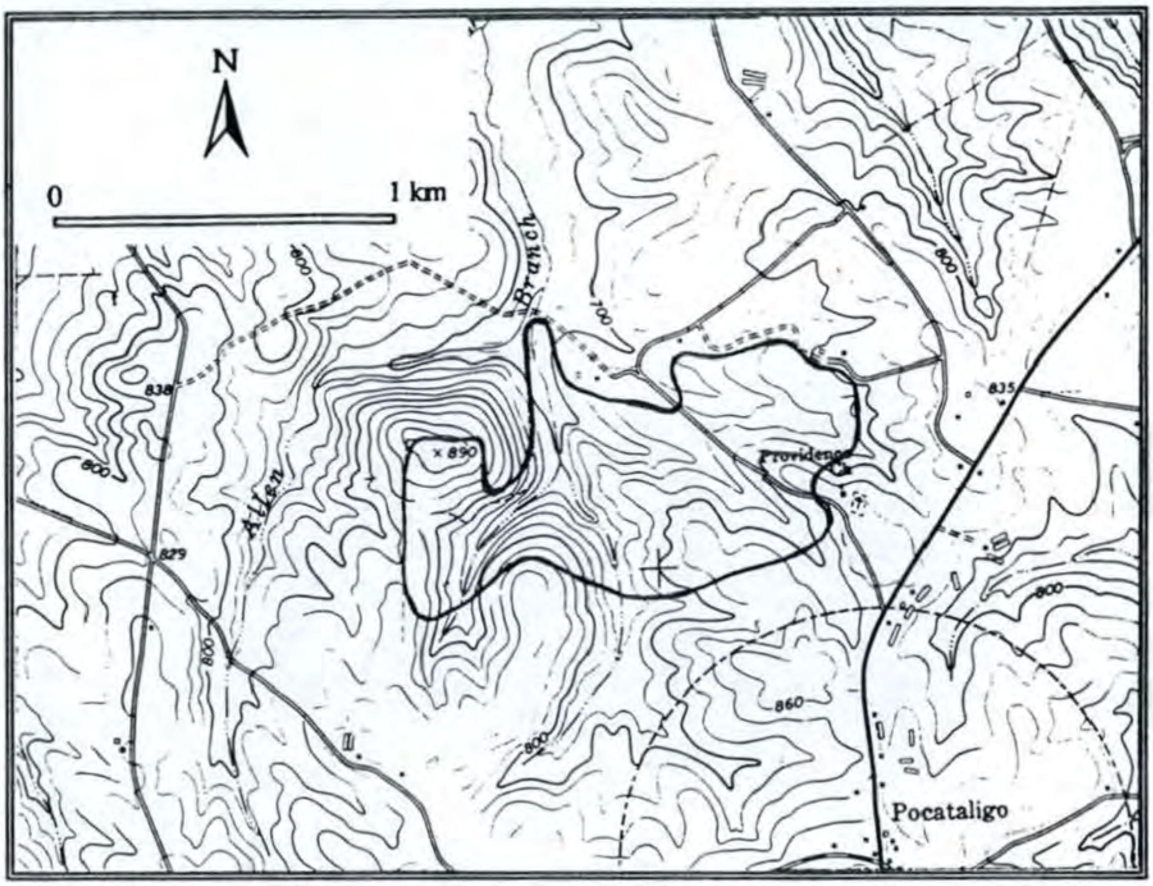


Figure 18. The Pocataligo Tract (USGS 1964c).

The Scorched Earth Tract

Although it is further north in Madison County, the Scorched Earth Tract is physiographically very similar to the Comer Tract. Like the Comer Tract, this clearcut is located on a broad, upland ridge with relatively little topographic relief, in this case only about 9 meters (210-219 meters). Moreover, this tract also does not include any year-round streams. The closest Rank 1 stream is several hundred meters from the boundary of the tract. Here too, soils are of the Cecil-Gwinnett-Appling Association (USDA 1979).

The Scorched Earth tract had been both cut and burned just prior to this survey. This resulted in good surface visibility of approximately 80 percent.

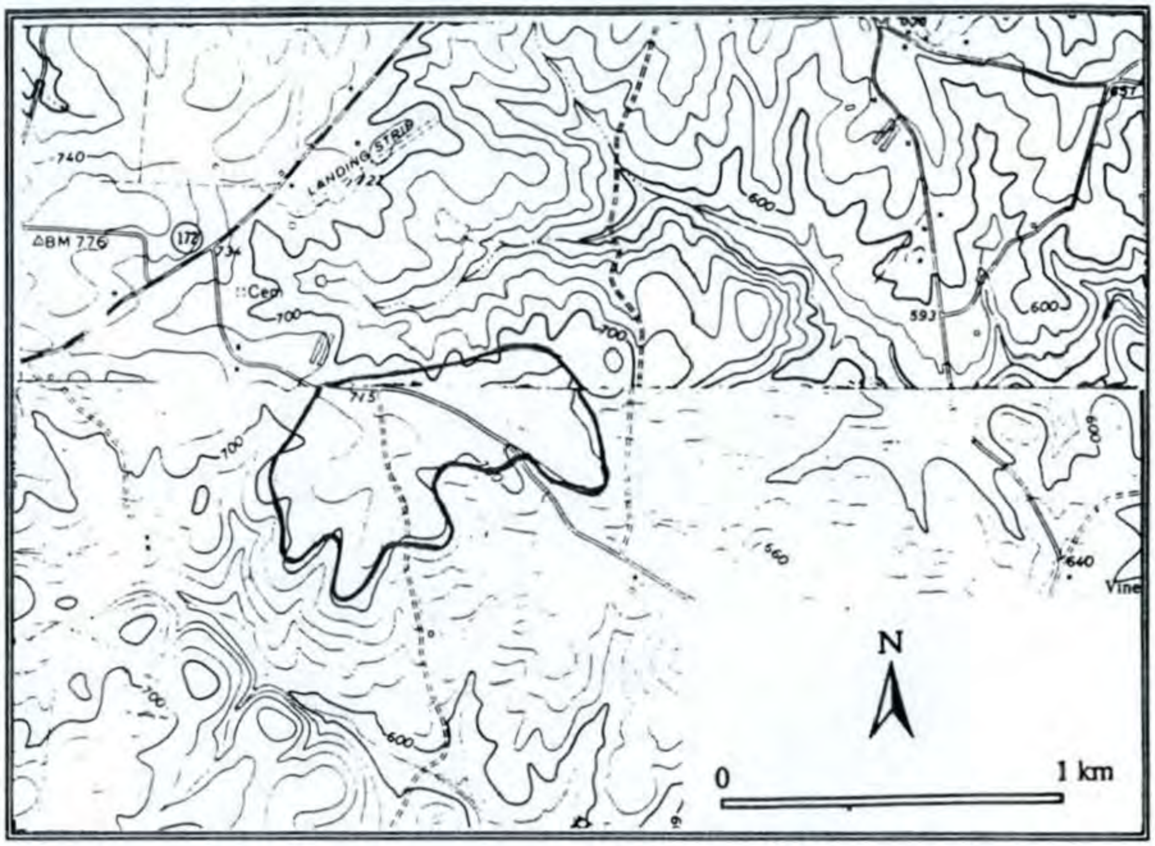


Figure 19. The Scorched Earth Tract (USGS 1972a, 1972c).

The South Fork Tract

The South Fork Tract rises from a low of 180 meters along the South Fork of the Broad River (Rank 3) and one of its Rank 2 tributaries to a high point of 213 meters on a ridge top knoll. Slopes are steep in some portions of the clearcut, but are more gradual in several places. Lower elevations in the tract are characterized by Cecil-Pacolet soils, while soils in the upper elevations are of the Madison Grover Association. These are sloping to moderately steep and gently sloping soils, respectively (USDA 1979). Although the South Fork Tract had been cut fairly recently, there was a lot of new growth at the time of survey. As a result, visibility was about 70 percent.

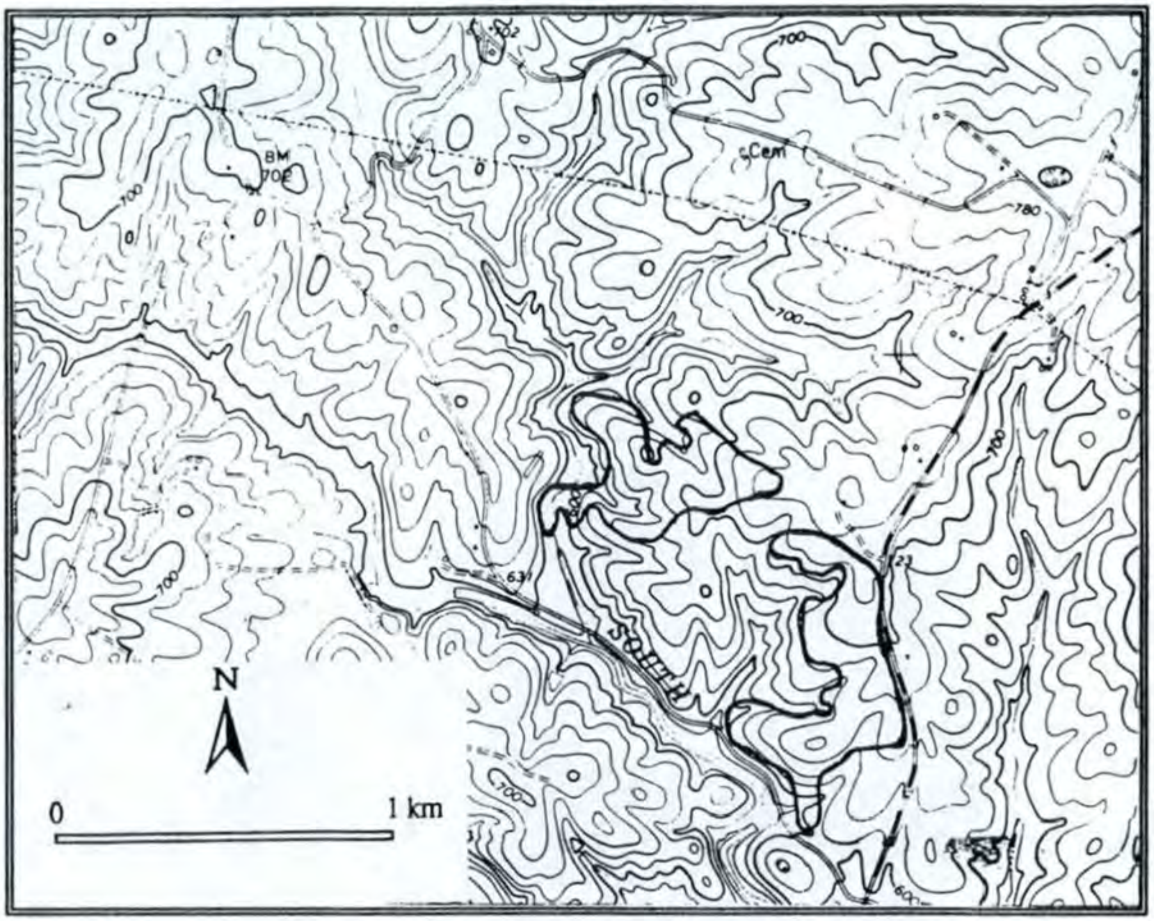


Figure 20. The South Fork Tract (USGS 1972c).

The North Madison Tract

The North Madison Tract is located just west of the Pocataligo Tract in a similar physiographic setting. Soils are of the Madison-Cecil-Pacolet Association (USDA 1979), and there is a fair amount of relief. Elevations range from 226 meters along a small Rank 1 stream to 256 meters on a high knoll, for 30 meters of relief within the survey tract. There were natural outcrops of moderate quality quartz and some steatite within the tract.

The North Madison clearcut had apparently been cut at two different times. The northern section was relatively old (one or two years), while the southern portion, which constitutes the bulk of the survey tract, was very recently cut and had excellent visibility (85 percent).

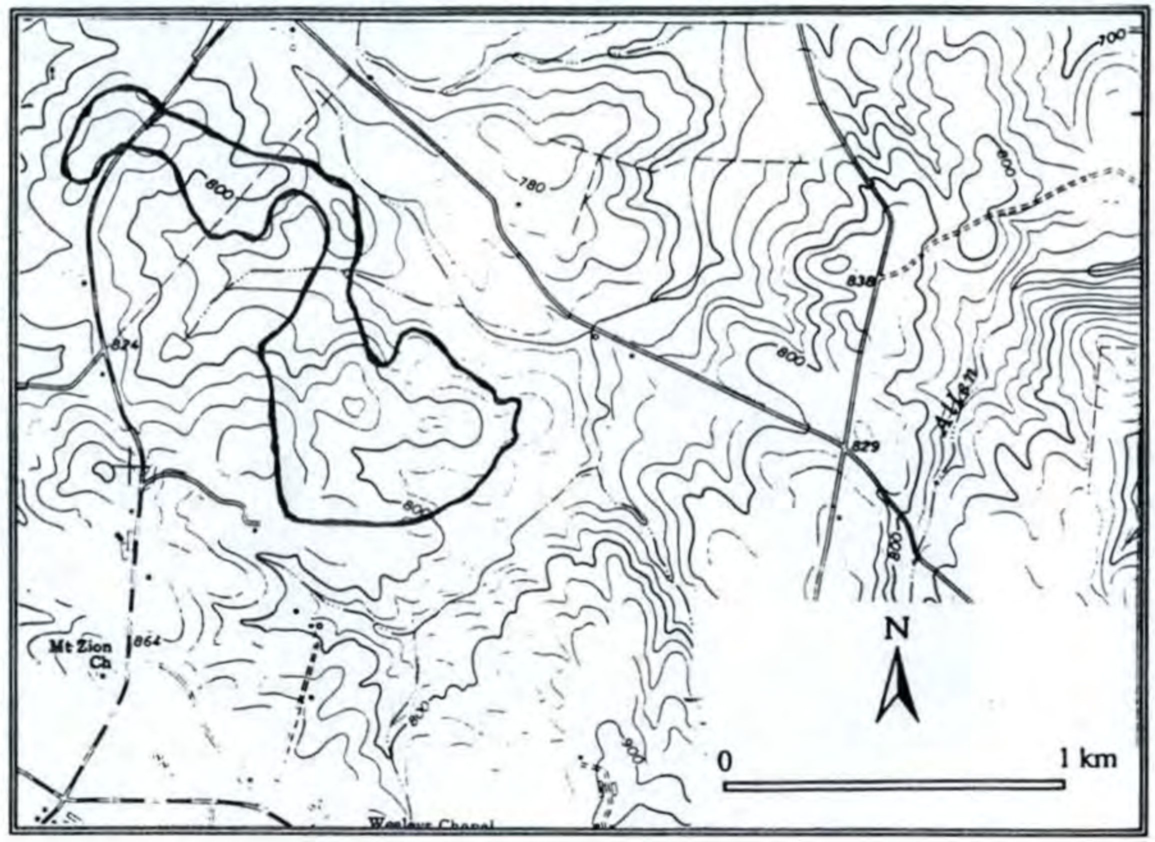


Figure 21. The North Madison Tract (USGS 1964c).

CHAPTER 6

THE PALEOINDIAN AND EARLY ARCHAIC PERIODS

Probably only a small percentage of people living in the southeastern United States today have any conception of the antiquity of human settlement in the region. The early occupation of the Southeast has been overshadowed (both in the popular and academic presses) by sites in other regions of the country where PaleoIndian artifacts are found in more secure and better preserved contexts, sometimes in association with species of large mammals such as mammoths and mastodons. Over the course of the past decade, however, Southeastern archaeologists have quietly worked to define in greater detail the period of initial human settlement and expansion in the region, a time which is defined as the PaleoIndian and Early Archaic Periods.

Background

The Cultural Setting

Southeastern archaeologists recognize three divisions within the PaleoIndian period. The first, or Early PaleoIndian subperiod begins with the earliest evidence for human occupation in the region 11,500 years ago and continues until approximately 11,000 BP (Anderson 1990:164; Anderson, et al. 1990:6). This period is recognized archaeologically by the presence of fluted projectile points such as the classic Clovis points of the southwestern United States. The next subperiod, the Middle PaleoIndian occupation, is dated from 11,000 to 10,500 BP, and is characterized by a wider array of points that includes both large and small, as well as fluted and non-fluted forms such as Cumberland, Redstone, Suwannee, and Simpson types (Anderson 1990:166; Anderson, et al. 1990:7-8). The final subperiod, alternately referred to as the Late or Terminal PaleoIndian period, dates from about 10,500 to 9,900 years BP, and is characterized principally by Dalton points, with lesser amounts of related point types (Anderson 1990:166; Anderson, et al. 1990:8; Goodyear 1982:392).

Succeeding the PaleoIndian occupation of the Southeast is the Early Archaic Period. While earlier projectile points like Daltons may overlap with the Early Archaic, more typical Early Archaic points in the Georgia Piedmont include Palmer, Big Sandy, and Kirk corner notched points that date from about 9500 to 8900 BP (Anderson and Hanson 1988:266). Bifurcated points types such as MacCorkle and LeCroy date to the later portion of the period, but are relatively rare.

The Environmental Setting and Subsistence

Environmental conditions were in flux throughout the PaleoIndian period. The Early and Middle PaleoIndian subperiods share the climatic and vegetational conditions of the Late Pleistocene, a time at which the Southeastern environment was shifting from an overall patchy environment to one of more pronounced "latitudinally and elevationally segregated zones" (Kelly and Todd 1988:232; Anderson, et al. 1990:3). Anderson, Ledbetter, and O'Steen (1990:3), in their summary of Paleo climatic data, write that "in Georgia north of 33 degrees N latitude, roughly the latitude of Macon, northern hardwoods such as oak, hickory, beech, birch, and elm replaced the Full Glacial spruce/pine boreal forest during this period..."

Although fossil evidence indicates that animal species such as tapir, peccary, horse, giant armadillo, giant ground sloths, and mastodons and mammoths roamed Georgia during the late Pleistocene (Holman 1985:569-570; Voorhies 1974:8593), PaleoIndian artifacts have yet to be found in association with the remains of these or any other animals in the state (Anderson, et al. 1990:95). By inference from Paleo-subsistence data gathered from other parts of the Southeast, however, we can assume that Early and Middle PaleoIndian period people probably favored terrestrial fauna. Certainly, the importance of megafauna in the Paleo diet has been overemphasized in archaeology, but as Kelly and Todd (1988:233) suggest, owing in part to a lack of familiarity with the plant resources in the region, early PaleoIndians "probably were generalists in relation to large terrestrial faunal resources and opportunists in relation to all other food resources."

Sometime during the Late PaleoIndian or Early Archaic periods, probably by 10,000 BP, the climatic changes that began in the Late Pleistocene were complete, and a seasonal climate more similar to that of today dominated the Southeast (Anderson and Hanson 1988:263-264). As a result of these environmental changes, there were widespread extinctions across North America and many of the large mammals of the Pleistocene died out at this time (Anderson, et al. 1990:3; Kelly and Todd 1988:232-233). Vegetation in the Georgia Piedmont during the Early Archaic Period (the Early Holocene) was a homogenous, mesic oak-hickory forest (Anderson and Hanson 1988:263). As will be discussed later in this chapter, the fact that Late PaleoIndian and Early Archaic period peoples may have been faced with significant environmental changes, including the probable loss of dietary staples, figures prominently in recent models of settlement patterns during the two periods.

Results

No PaleoIndian artifacts were recovered on either my survey or on the North Oconee Project (Ledbetter and Braley 1990). However, a combined total of six Early

Archaic components were recovered on both surveys, and they are summarized in Table 2. The locations of these components are displayed in Figure 22.

Early Archaic sites occur on a variety of landforms in the project area, but their distribution reveals a slight preference for riverine settings, with two-thirds of the Early Archaic sites in this sample occurring near Rank 3 streams. Unfortunately, the small number of Early Archaic sites identified, and the fact that most of these sites were reoccupied during later periods, complicate interpretation of the Early Archaic settlement system. For example, artifact density is high if all the sites containing Early Archaic diagnostics are averaged, but density is extremely low on single component Early Archaic sites. Likewise, Early Archaic sites that were not reoccupied in later periods are very small (average of 0.35 hectares), but if all Early Archaic sites are included, this figure rises considerably.

Table 2. Early Archaic Components in the Project Area Identified on This Survey (*) and on the North Oconee Project (**) (Ledbetter and Braley 1990).

Site #	Early Archaic Component	Other Component(s)	Topography	Stream Rank	Lithic Materials	Artifact Density	Size (ha)
*9JK123	Palmer	-	ridge nose	1	QTZ	low	.01
*9MD94	Palmer	-	ridge top	1	QTZ	low	.06
**9JK48	Palmer	HI	ridge crest	3	QTZ	low	1.08
**9JK54	Palmer	WD, MS, HI	terrace	3	RVC	high	15.0
**9JK59	Palmer	MS	ridge nose	3	QTZ, PTC	high	1.2
**9JK65	Big Sandy	LA, MS, HI	ridge nose	3	QTZ, CPC, GS, MV	medium	3.0

LA=Late Archaic; WD=Woodland; MS=Mississippian; HI=Historic
QTZ=Quartz; RVC=Ridge/Valley Chert; CPC=Coastal Plain Chert; PTC=Piedmont Chert;
MV=Metavolcanic; GS=ground stone

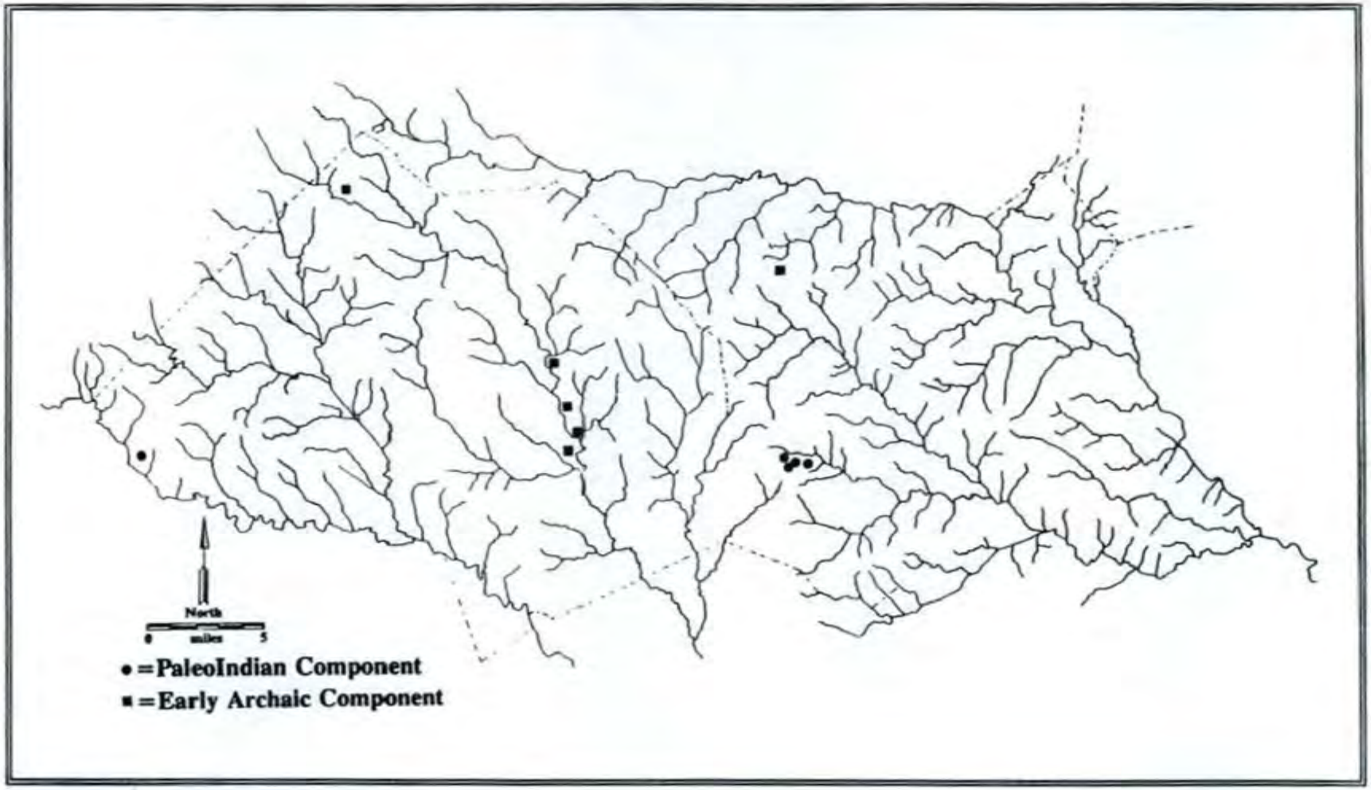


Figure 22. Map displaying the location of all known PaleoIndian components components in the project area and the Early Archaic components identified by this survey and on the North Oconee Project (Ledbetter and Braley 1990).

Discussion

The Early and Middle PaleoIndian Periods

Professional archaeological surveys in Jackson and Madison Counties, including my own, have consistently failed to produce a single Early or Middle PaleoIndian diagnostic artifact. The only hint of occupation in the project area during this time period comes from the recovery of two Clovis points by avocational archaeologists from Jackson County. One of these, a Clovis variant manufactured from Coastal Plain chert, was identified by the Society for Georgia Archaeology PaleoIndian Artifact Recording Project (Anderson, et al. 1990:54-63). The other was an extensively reworked Clovis point of either Coastal Plain or Piedmont chert, found in an upland location above the Mulberry River (Michael Pinkard, personal communication 1993).

As was previously noted, the paucity of early PaleoIndian artifacts in Jackson and Madison Counties is not atypical of the Georgia Piedmont. Figure 23 is a comparison of PaleoIndian component densities from various large surveys in the Piedmont.

Although densities appear to be higher in survey areas along the Savannah and Oconee Rivers, it should be noted that all the percentages are quite low, and that removing Late PaleoIndian Dalton components from consideration would reduce these percentages even more. There is some evidence that geologic processes could be responsible for the lack of sites in the region. In a study of faunal remains in Wilkes County, Voorhies (1974:85-93) noted that significant deposition had occurred along Piedmont streams during the Pleistocene, and that the scarcity of Pleistocene faunal remains in the region could be due to the fact that many remains are buried beneath alluvium. Clearly, this could also explain the rarity of PaleoIndian artifacts in the Georgia Piedmont.

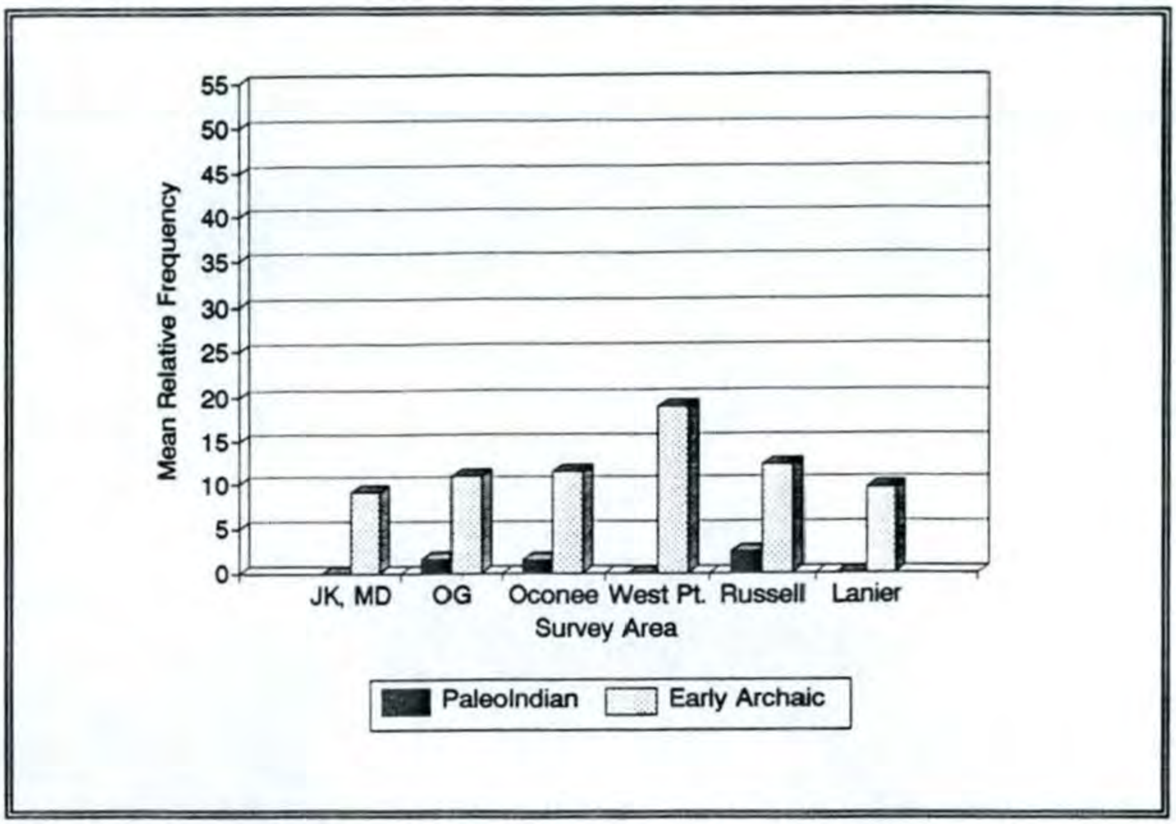


Figure 23. The relative frequencies of PaleoIndian and Early Archaic components from a sample of archaeological surveys in the Georgia Piedmont.

Site formation processes notwithstanding, however, archaeologists have proposed a number of cultural explanations for the lack of Early and Middle PaleoIndian components in the Piedmont and in other parts of the Southeast. Early and Middle PaleoIndian subperiods in the Southeast are assumed to correspond, respectively, with "human populations initially colonizing and exploring the region", and "settling in and establishing regional population concentrations and cultural variants" (Anderson 1990:166; Anderson, et al. 1990:9). Models of PaleoIndian settlement tend to reflect these assumptions. For example, Anderson, noting the high concentration of fluted points in some parts of the Southeast, and scarcity of such points in other areas, has suggested that Early PaleoIndians explored the Southeast from a number of "staging areas," or more dense and temporally stable population centers, one of which he places on the central Tennessee River (Anderson 1990:189).

While Anderson's suggestion that the initial settlers of the Southeast would have familiarized themselves with the region by radiating out from one or more core areas seems probable, until more survey and excavation can be completed it remains hypothetical. In Georgia, however, it has become clear that certain portions of the state, specifically the Coastal Plain and Ridge and Valley Provinces, were apparently more heavily utilized than the Piedmont during the Early and Middle PaleoIndian subperiods (Anderson, et al. 1990:54).

Alternatively, the lack of Early and Middle PaleoIndian components both in the project area and across the Piedmont could reflect an economic choice of high quality lithics, coupled with the uneven distribution of these materials (O'Steen 1983; Anderson, et al. 1990:39). At the local level, survey in the Lake Oconee area has shown that sites from these time periods consistently occur near outcrops of higher quality lithics (ibid.). Such outcrops are noticeably absent from Jackson and Madison Counties. At the regional level, the Ridge and Valley and Coastal Plain Provinces, both of which contain a greater percentage of high quality lithic material than the Piedmont (Goad 1979), display higher densities of Early and Middle PaleoIndian artifacts (Anderson, et al. 1990:39-40).

O'Steen (1983, 1993a) has also presented a model which could explain the lack of Early and Middle PaleoIndian settlement in Jackson and Madison Counties. Her study of the Lake Oconee area suggests only ephemeral use of upland trails and smaller rivers with more intense occupation near the large shoals of major rivers (O'Steen 1983). The former features are more frequent in Jackson and Madison Counties, while the latter are characteristic of areas to the south and east of the project area such as the Oconee and Savannah River valleys.

Settlement data from Jackson and Madison Counties is consistent with all of these models. The two isolated point finds in the uplands, coupled with the lack of Early or Middle PaleoIndian points from other surveys in the two counties, suggest infrequent and transitory use of the project area during this period by groups radiating in from the south (either from the lower Piedmont or the Coastal Plain, given the types of lithics). Whether this pattern reflects a preference for large shoals and major rivers, areas with higher quality lithics, or exploration of the region from "staging areas" is impossible to determine given the data at hand. The fact that this pattern endured for nearly 2000 years, however, would seem to make territorial-based explanations less likely. As Kelly and Todd suggest (1988:231-244), economic explanations of settlement patterns may be more accurate for people who probably shifted their range (at least within the same physiographic province) quite frequently. Over the course of repeated generations, however, other factors, particularly the establishment of social networks, could have reinforced and perhaps even superseded what were originally economic or technology based choices of settlement location.

The Late PaleoIndian and Early Archaic Periods

Archaeological surveys throughout the Southeast indicate a virtually uniform increase in site density during the Late PaleoIndian and Early Archaic Periods (Anderson 1990:198-201). These changes are pronounced in many parts of the Georgia Piedmont. For example, in the archaeological survey of the Russell Reservoir, Dalton components were almost four times as common as earlier components (Anderson and Joseph 1988:26), and a similar ratio was evident in survey data from Lake Oconee (O'Steen, et al. 1986). As Figure 23 demonstrates, the transition between the PaleoIndian and Early Archaic periods is even more dramatic, with the mean relative frequencies of components from these periods rising from less than one, to twelve percent of all diagnostic components, respectively.

The increase in site density during these two periods can perhaps be generally interpreted as a product of population growth associated with the settling of the region. However, closer examination of the archaeological record indicates that other, concurrent trends are also taking place and may be compounding this increase. Settlement data demonstrates more frequent movement out of the larger river valleys, with greater use of uplands and smaller tributaries (Anderson, et al. 1990:39; O'Steen 1983). Meanwhile, an increase in the use of locally occurring lithics and a decrease in both the frequency and intensity of tool re-use and re-sharpening may signal a reduction in mobility at this time (ibid.). Taken as a whole, the record suggests that during the Late PaleoIndian and Early Archaic periods, people in the Georgia Piedmont were using a wider variety of landforms, but were shifting range less frequently.

Both these changes in settlement strategy and in the tool kit have been cited as evidence that people were adopting a more diversified subsistence strategy in response to environmental changes (e.g, Goodyear 1982). The process of settling in that Caldwell attributed to increasing efficiency in exploiting the environment is also a likely explanation for these changes, although Caldwell himself felt that this change occurred much later (Caldwell 1958:6-17; O'Steen 1983:19-20).

Archaeological excavations throughout the Southeast have, to a certain extent, substantiated this hypothesis, and indicate that the Late Paleo and Early Archaic diet consisted mainly of deer, small mammals, fish, nuts, and other plant resources (see O'Steen (1983) for a summary of Late Paleo and Early Archaic subsistence data). Archaeologists accept this diversification of subsistence strategy, but seem divided in respect to the degree of mobility that was involved in the procurement of these resources. In her summary of the Early Archaic occupation in the area that is now Lake Oconee, O'Steen (1983, 1993a) suggests that the people living in the area at the time were relatively sedentary. However, in a more recent model of Early Archaic settlement in the Southeast, Anderson and Hanson (1988) suggest fairly extensive migrations primarily in response to increasingly marked seasonal variation in the distribution of deer and plant resources. Their model focuses on the settlement systems of small bands of foragers (50-150 people) based in particular drainages. They suggest that during the winter months, when resources were unpredictable and patchy, logistical forays from centralized base camps would be the most efficient settlement strategy. In warmer months, when deer and plant resources were fairly evenly distributed across the landscape, they expect dispersed settlements. They suggest migration downstream towards the coast during the early spring; upstream into the Piedmont during the late spring, summer, and fall; and back down to base camps along the fall line during the winter.

Interestingly, for Jackson and Madison Counties, the magnitude of mi suggested by Anderson and Hanson's model may be more consistent with Lat PaleoIndian settlement than with settlement during the Early Archaic period. Although my survey did not identify any Late PaleoIndian artifacts, four Dalton components have been identified in the project area, all in a single tract in Madison County (Price and Wood 1989). Price and Wood (1989:17) suggest that the sites represent "repeated visits by individuals or small groups to a favored area." This interpretation is based on the artifacts recovered (which included tools manufactured from a variety of materials, but predominantly of quartz, orthoquartzite, and Piedmont chert) and on the location of the sites on the edge of a broad upland ridge near two springs. The authors suggest that due to the availability of high quality quartz and the proximity of two springs the area "must have been recognized as a good area to hunt and process animals and replenish tool kits". If we accept this interpretation, Late PaleoIndian utilization of the project area would seem to consist of repeated, and probably seasonal, foraging expeditions by people based further south in the Oconee Valley. The closest recorded PaleoIndian occupation of significance is a residential base camp (as evidenced by the recovery of large numbers of formal tools) at Barnett Shoals on the Oconee River (Anderson, et al. 1990:37-38; Ledbetter, personal communication 1993). It is possible that PaleoIndian people based seasonally at this site would occasionally traverse the uplands of Jackson and Madison Counties in pursuit of game or trade.

In contrast to Dalton components in the project area, the Early Archaic occupation exhibits some suggestions of more intense utilization, perhaps by people with a more restricted territorial range. In Jackson and Madison Counties, Early Archaic components are very widely distributed spatially and, although still relatively scarce in comparison with areas downstream (O'Steen 1983:55-104), more frequent in occurrence. Moreover, diagnostic artifacts from this period are almost all manufactured from locally available quartz, and typically display signs of re-use. In contrast with Anderson and Hanson's (1988) model, these trends may indicate longer stays in the project area or more restricted territories.

A collection of Big Sandy points in the possession of the Crawford Long Museum, however, complicates the picture of Early Archaic settlement. Reportedly found in the uplands near Commerce (Susan Deaver, personal communication 1993), three of these points are manufactured from Coastal Plain chert, and one of Ridge and Valley chert. Considered separately from the previously cited data, these points would seem to suggest seasonal movement into the project area, as per Anderson and Hanson's model. However, the combination of both intensive use of local materials and small amounts of non-local lithics could be consistent with a small, locally based population with a limited territorial range occasionally interacting with people to the south and northwest. This would be more compatible with O'Steen's model of the middle and lower Oconee Valley, and would seem to be the most likely interpretation.

Conclusions

Given the nominal number of PaleoIndian and Early Archaic diagnostics recovered from the project area, conclusions concerning settlement during these periods are difficult. It does appear that settlement was minimal during the PaleoIndian period, but increased slightly with the Early Archaic. There are some indications that settlement became tied to a smaller, more locally-based range during the Early Archaic, a trend that increases in the Middle Archaic, and which may partially corroborate O'Steen's model. However, given the small sample size, it would be premature to attempt to evaluate definitively any models of Early Archaic settlement, or to offer any firm conclusions of my own.

CHAPTER 7

THE MIDDLE ARCHAIC PERIOD

Despite the ubiquity of Middle Archaic sites on the Piedmont landscape (Caldwell 1951), the period remains, on the whole, poorly understood. The fact that Middle Archaic components are usually found only in disturbed contexts has prevented the intensive excavations that will be necessary for a better understanding of life in the Piedmont at that time. Recent analyses of Middle Archaic settlement patterns, however, have begun to shed more light on what may be the most enigmatic of all the prehistoric periods.

Background

The Cultural Setting

In his work at the Doershuk site in the Piedmont of North Carolina, Coe (1964) defined a projectile point chronology for the Middle Archaic that, with some refinements, remains a standard for research on this period. Coe dated the earliest point in this chronology, the Stanly type, to approximately 7000 BP on the basis of its stratigraphic association. Subsequent excavations of Stanly components throughout the eastern United States have yielded Carbon 14 dates in the range of 8000-7000 BP (Anderson and Joseph 1988:148; Ledbetter, et al. 1987:190-191). Stanly points are, however, relatively scarce throughout Georgia and have yet to be identified in Jackson or Madison Counties.

Much more common Middle Archaic points are the types Coe designated as Morrow Mountain (1964:37). Coe defined two different varieties of this type, Morrow Mountain I was "a small point with a broad triangular blade and a short tapered stem", and Morrow Mountain II was "long and narrow, with a correspondingly longer tapered stem." More recently, Cambron and Hulse (1975:91) added a third variety which they described as a "medium sized point with a contracted stem and straight base." The relationship of Morrow Mountain points to another type, the Guilford, is debatable. Some archaeologists consider Guilfords to be the same as Morrow Mountains, but others continue to use the sequence developed by Coe, which has these points ("long, slender, but thick blade with straight rounded, or concave base") replacing Morrow Mountain points during the terminal Middle Archaic (Coe 1964:43).

In the past decade, archaeologists have recognized that the variations in Morrow Mountain morphology that Coe attributed to stylistic change through time may actually be the result of resharpening (Goodyear, et al. 1979) or differential hafting techniques (Blanton and Sassaman 1989:65; Ledbetter, et al. 1987:194). Consequently, most archaeologists today choose to condense the various forms into the single designation Morrow Mountain. As will be illustrated later in this chapter, however, inconsistencies in the use of the Morrow Mountain type complicate comparative studies of Middle Archaic settlement.

The Environmental Setting and Subsistence

The Middle Archaic period corresponds roughly with the climatic interlude that is alternately referred to as the "altithermal, hypsithermal, xerothermal, or Climatic Optimum" (Blanton and Sassaman 1989:58). In comparison with the climate we are familiar with today, this period was generally warmer with less precipitation. Recent authors, however, have questioned the uniformly hot and dry conditions that have been described in much of the literature, and suggest that the period may have been punctuated by intervals of increased precipitation and cooler temperatures (ibid.).

Palynological studies indicate that an oak-hickory-southern pine forest continued to dominate the Piedmont throughout the Middle Archaic period (Blanton and Sassaman 1989:58; Delcourt and Delcourt 1987). The Middle Archaic diet probably reflected this environment, with acorn, hickory, walnut, and lesser amounts of other plant foods (Yarnell and Black 1985), supplementing terrestrial faunal resources. However, Blanton and Sassaman (1989:68) suggest that, owing to the possible alternation between hot and dry and cool and moist conditions, "the homogenous Piedmont habitat yielded a resource base that was rich but not always spatially predictable."

Results

To date, 23 Middle Archaic components have been identified in Jackson and Madison Counties. Of these, 18 were identified on my survey, one was recorded on the North Oconee Reservoir Project, and four were identified by other CRM projects. With the exception of one Guilford point found in one of my survey tracts in Madison County, all of the Middle Archaic components identified on the North Oconee Reservoir project and on my own survey have been Morrow Mountain phase. Furthermore, with again a single exception, all of the Middle Archaic projectile points identified on these two survey projects have been manufactured from quartz. For the most part, I have attempted to include only clearly diagnostic Morrow Mountain points in this sample, but a few that are questionable are indicated in Table 3 by a question mark. The locations of these MIddle Archaic compoenents are indicated in Figure 24.

Table 3. Middle Archaic Components in the Project Area Identified on This Survey (*) and on The North Oconee Project (**) (Ledbetter and Braley 1990).

Site #	Middle Archaic Component	Other Component(s)	Topography	Stream Rank	Lithic Materials	Artifact Density	Size (ha)
*9JK96	Morrow Mountain	-	ridge nose	2	QTZ	low	0.09
*9JK98	Morrow Mountain	-	ridge nose	2	QTZ	low	0.15
*9JK101	Morrow Mountain	-	ridge nose	1	QTZ, CPC	medium	1.8
*9JK112	Morrow Mountain	LA	ridge nose	1	QTZ	high	2.0
*9JK120	Morrow Mountain	-	saddle on ridge top	1	QTZ	low	isolate
*9JK121	Morrow Mountain?	-	ridge top	1	QTZ	low	0.24
*9JK127	Morrow Mountain	-	ridge nose	2	QTZ	low	0.08
*9JK132	Morrow Mountain	-	ridge nose	2	QTZ	medium	0.6
*9JK133	Morrow Mountain?	-	ridge top	1	QTZ	low	.003
*9MD64	Morrow Mountain	LA, MS	ridge nose	3	QTZ, CPC	high	2.0
*9MD73	Morrow Mountain	-	ridge nose	1	QTZ	low	0.27
*9MD76	Morrow Mountain	-	ridge top	1	QTZ	low	0.36
*9MD82	Morrow Mountain?	-	ridge top	1	QTZ	low	.003
*9MD87	Guilford?	-	ridge slope	1	QTZ	low	.01
*9MD93	Morrow Mountain	LA	saddle on ridge top	1	MV, QTZ	low	.02
*9MD95	Morrow Mountain?	-	ridge top	1	QTZ	low	isolate
*9MD96	Morrow Mountain	-	ridge nose	1	QTZ	low	.06
*9MD105	Morrow Mountain	-	ridge top	1	QTZ	low	isolate
**9JK73	Morrow Mountain	-	saddle on ridge crest	3	QTZ	medium	1.2

LA=Late Archaic; MS=Mississippian;
QTZ=Quartz; CPC=Coastal Plain Chert; MV=Metavolcanic

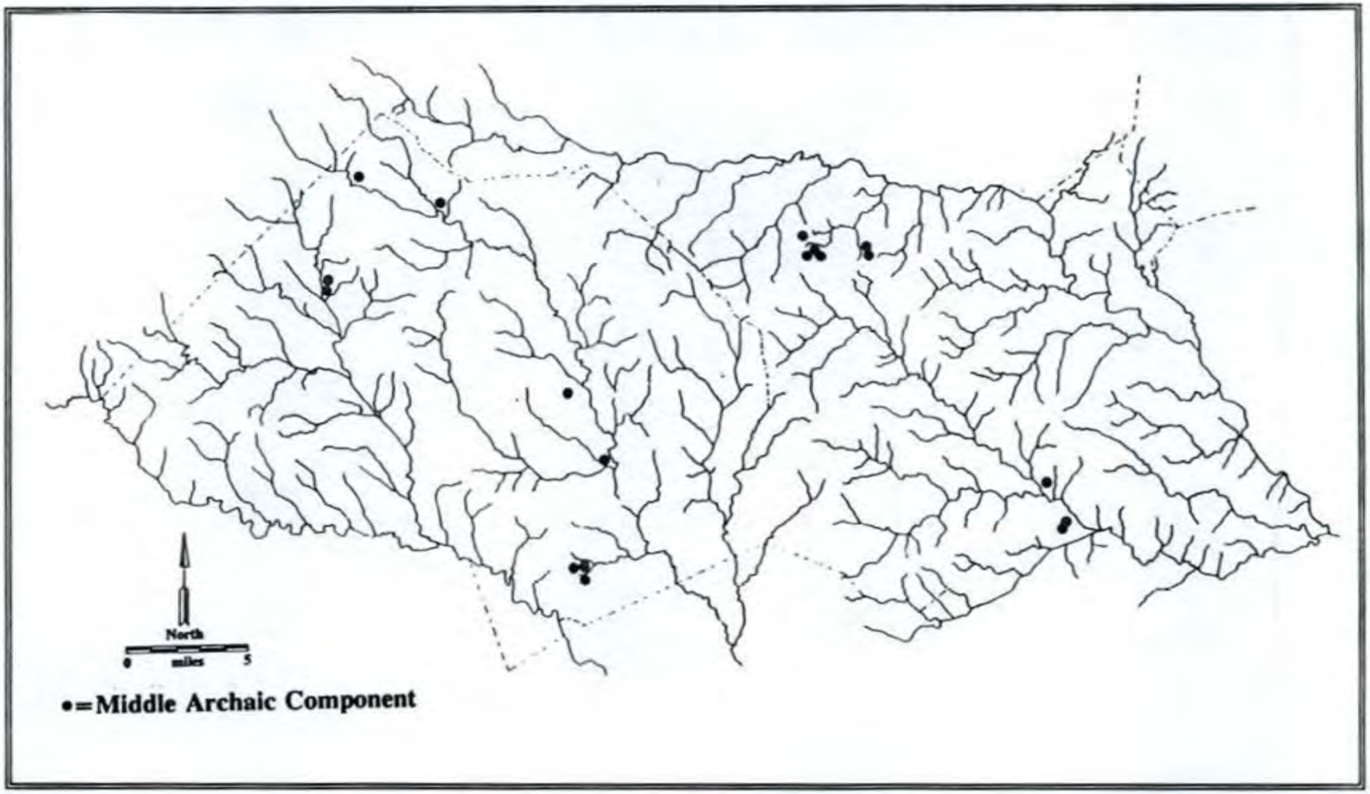


Figure 24. Map of the project area displaying the location of Middle Archaic components identified on this survey and on the North Oconee Reservoir Project (Ledbetter and Braley 1990).

The distribution of Middle Archaic sites in the project area displays a preference for uplands and smaller rank streams. The fact that my survey identified far more Middle Archaic components than that of the North Oconee Project bears out this trend. Overall, 90 percent of the Middle Archaic components from these two surveys are on Rank 1 or Rank 2 streams. The average size of these sites is small (0.47 hectares) and even smaller (0.30 hectares) if only single component sites are considered. This sample of Middle Archaic sites have a mean artifact density in the low range, and average 0.3 tools for every piece of debris (a low ratio in comparison with other periods, as indicated in Appendix D).

Discussion

Components dating to the Middle Archaic outnumber those of any other period on survey after survey in the Georgia Piedmont, and the present study of Jackson and Madison Counties is no exception. However, a comparison of the relative frequencies of Middle Archaic components (Figure 25) also reveals that there is significant variation among these surveys, from a low of 19.4 percent to a high of 51.9 percent. This range is higher than that of any other period. Although there may be some real variations in the frequency of Middle Archaic components in different areas on the Piedmont, this wide range is undoubtedly also a product of inconsistencies in the identification of Middle Archaic diagnostics.

Inconsistencies in the identification of Middle Archaic diagnostics are, in turn, the product of several factors. The first of these is the considerable range of variation, and lack of distinct morphological characteristics on Morrow Mountain and Guilford points. Some archaeologists consider any ovate shaped biface a Middle Archaic point. While resharpening could reduce the shoulders of a Morrow Mountain point to look like a quartz biface, the simple ovate form is probably a utilitarian shape used across a number of periods (Ledbetter, et al. 1987:255-273).

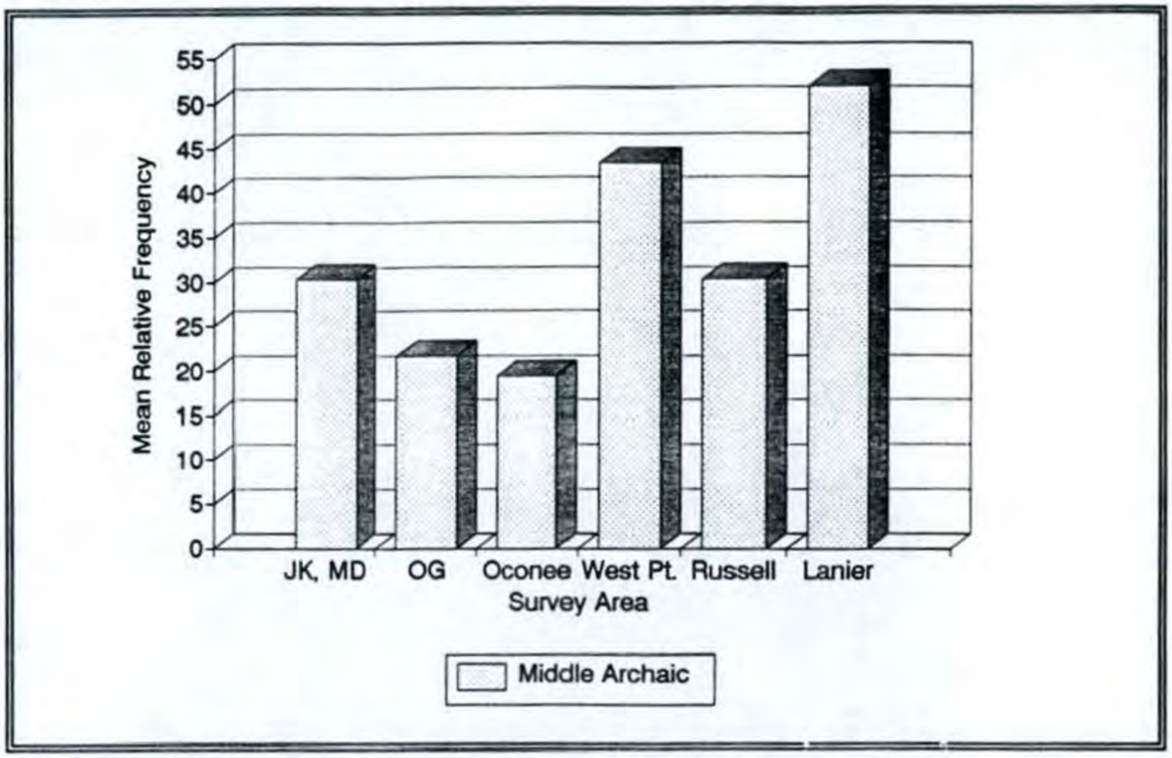


Figure 25. The relative frequencies of Middle Archaic components on a sample of surveys in the Georgia Piedmont.

A second and related factor contributing to the inconsistencies is the legacy of the "Old Quartz Culture" as defined by Joseph Caldwell (n.d., 1951, 1953). Caldwell introduced the concept of an Archaic "Old Quartz Culture" in response to a layer of undiagnostic quartz tools and debitage on the Lake Springs site that he recognized as similar to the quartz artifact scatters he had observed throughout the Piedmont. The stratigraphic position of this layer at Lake Springs suggested an Archaic association. Other archaeologists, noting the similarity of the assemblage to Morrow Mountain and Guilford points, equated the "Old Quartz Culture" with the Middle Archaic (Johnson 1981). The association was widely accepted, and in many cases archaeologists have dated any quartz artifact scatter to the Middle Archaic, usually as Morrow Mountain phase. Unfortunately, many of the artifacts Caldwell included as "Old Quartz", as well as many of those still being identified as Middle Archaic today, are probably either earlier or later than the Middle Archaic (Johnson 1981; Ledbetter, et al. 1987:255-287).

Despite these problems, however, Caldwell's "Old Quartz Culture" made some important contributions to the study of the Middle Archaic. To begin with, Caldwell was correct in characterizing sites from this time period as small, frequent, and very widely dispersed across a range of landforms. Subsequent analyses have confirmed these trends. In their review of the Middle Archaic in South Carolina, Blanton and Sassaman (1989:68) suggest that Piedmont settlements from the period are "typically small and diffuse...(with) simple and redundant assemblages. Site density is high and no particular topographic features appear to have been favored." Freer's (1989) survey of Oglethorpe County, Georgia revealed similar trends on the Georgia Piedmont. In Jackson and Madison Counties, Middle Archaic sites are also small, diffuse, and numerous, but, as was noted earlier, it does appear that upland landforms on smaller streams were favored areas for habitation.

Caldwell was also correct in noting a preference for the use of quartz during the Middle Archaic on the Georgia Piedmont. Although later authors have subsumed this propensity under a more general trend toward the use of local materials (Blanton and Sassaman 1989), there are indications that there may, in fact, have been a definite preference for quartz that reflects more than simple availability. Table 4 notes the predominance of quartz in Morrow Mountain assemblages from a number of areas. The majority of Morrow Mountain points are made of quartz, even in areas where local cherts area readily available (e.g., Lake Allatoona in northwest Georgia, Lake Oconee, and the Fall Line of South Carolina, as indicated in Table 4).

In their summary of the Middle Archaic in the Russell Reservoir, Anderson and Joseph (1988:149) suggest that high incidence of quartz probably reflects a deliberate cultural selection. They propose that this choice may be conditioned by "cultural considerations (i.e., the durability of quartz as opposed to other locally available materials such as metavolcanics)" as well as by "stylistic factors (i.e., selection for its white or clear appearance)." A similar pattern could be in place in Jackson and Madison Counties, but given that quartz is the only locally occurring material in the area, it is difficult to suggest a preference that extends beyond simple practicality or territorial constriction.

Table 4. A Comparison of the Frequency of Quartz and Non-Quartz Morrow Mountain Points in Various Assemblages.

Assemblage Materials	Quartz		Other	
	N	%	N	%
Jackson and Madison Counties	12	92.3	1	7.7
Lake Allatoona*	23	82.1	5	17.9
Lake Oconee*	174	98.3	3	1.7
Russell Reservoir**	348	96.4	13	3.6
Piedmont South Carolina***	954	92.2	81	7.8
Fall Line South Carolina***	353	95.9	15	4.1

*Ledbetter, et al. (1987)
**Anderson and Joseph (1988)
***Blanton and Sassaman (1989)

Although the general trend toward the use of local materials may be indicative of more restricted territories during the Middle Archaic, the other characteristics of

Middle Archaic that have been discussed here (numerous small sites with redundant artifact assemblages spread fairly evenly across the landscape) are clear indications of high residential mobility. To date, only two sites in Georgia have produced Middle Archaic assemblages that could be characteristic of more permanent "base/aggregation camp" settlement. One of these is the Lake Springs site and the other is a recently discovered site near the Fall Line in the Oconee Valley (O'Steen 1993b:11).

Blanton and Sassaman (1989:68), linking this high residential mobility with a tendency toward more expedient or situational technologies, suggest that Middle Archaic populations chose a pattern of "adaptive flexibility" in response to a "lack of spatial and temporal uniformity in the environment and thus an array of somewhat unpredictable resources." They propose that this response included generalized technology, a broad resource base, and a generalized foraging strategy (ibid.).

Conaty and Leach (1987:297) propose a similar but in some ways more detailed model of "adaptive responses" for the Middle Archaic in western Kentucky and northwestern Tennessee. They suggest that during the early Middle Archaic, less precipitation produced an expanded and more homogenous oak and hickory forest that would have allowed for more permanent base camps in riverbottoms, with smaller sites in the uplands. For the later portion of the Middle Archaic, they claim that higher precipitation produced an even, yet dispersed distribution of oak and hickory patches that would have necessitated a higher degree of residential mobility for efficient resource procurement.

Perhaps the latter portion of this model could explain Middle Archaic settlement in Jackson and Madison Counties. Certainly, a more patchy resource base might be expected in a headwaters region of the upper Piedmont that is characterized by considerable topographic relief and only isolated pockets of floodplain. The pattern of small, low density sites distributed relatively evenly across the landscape that is evident in the area for this time would seem to be consistent with small groups of people utilizing the resources in a given area for a short period of time before moving to another location.

Conclusions

Settlement data alone will probably be insufficient for conclusive evaluation either of these models. Only additional paleoclimatic and subsistence data for the Middle Archaic might help clarify the situation, by suggesting whether the pattern of small, diffuse, and redundant Middle Archaic sites in the area reflects a generalized foraging strategy, as per Blanton and Sassaman's model, or is the result of a relatively specialized focus on a more limited number of dispersed resources, as Conaty and Leach propose.

What is important to this study is not so much the reasons for this pattern as is the pattern itself. The overwhelming predominance of locally occurring materials in Middle Archaic assemblages from the project area indicate a significant change toward more restricted territorial ranges, perhaps leading to permanent (albeit highly mobile) residence in the project area. In some ways, then, the Middle Archaic in the project area is clearly a forerunner of changes that become more pronounced in subsequent periods. It also marked by an intensification of processes begun in the Early Archaic, particularly in terms of an increasing number of sites, and in the predominance of quartz. The extent of mobility reflected in settlement patterns for the period, however, underscores the fact that settlement during this time is substantially different from any period either before or after it.

CHAPTER 8

THE LATE ARCHAIC PERIOD

The Late Archaic period in the Southeast is a time of significant changes in settlement, subsistence, and technology. In most cases, these changes continue and intensify through the remainder of prehistory. As a point of transition then, the Late Archaic Period is important for the understanding of long term patterns of settlement and land use.

Background

The Cultural Setting

Lasting from 3500-1000 B.C., the Late Archaic is the earliest prehistoric period for which diagnostic artifacts include not only projectile points but also steatite and fiber tempered ceramic vessels. This more elaborate artifact assemblage allows archaeologists to recognize several chronological divisions within the period (Anderson and Joseph 1988:190-204; Ledbetter, et al. 1987:201-214; O'Steen and Reed 1986:27-29). The initial portion of the Late Archaic, often termed the preceramic phase, is represented by large broad-stem projectile points/knives of the type Coe (1964) recognized as Savannah River Stemmed. Recent analyses of Savannah River points and associated debitage indicate that these points were part of a "portable core system" from which both formal and expedient tools (flake tools and bifaces) could be produced from a conveyable lithic core to serve a variety of functions (Ledbetter 1991:243-247). The earliest known examples of steatite or soapstone vessels are in association with Savannah River points during this phase.

As the name suggests, the ceramic phase of the Late Archaic is marked by the appearance of fiber tempered pottery, the oldest known ceramics in North America. Fiber tempered ceramics were first identified at the Stalling's Island site just north of Augusta on the Savannah River (Claflin 1931). In recent years, archaeologists have recognized that the distribution of fiber tempered pottery in northern Georgia is more extensive than was previously assumed. Although no fiber tempered ceramics have been recovered from Jackson or Madison Counties, there are examples from "well into the interior piedmont" along the Savannah (Anderson and Joseph 1988:193), and from just south of the project area on the Oconee River (O'Steen and Reed 1986:29).

In addition to the classic Savannah River stemmed points, there are a number of smaller square stemmed, contracting stemmed, and weakly side notched points that are diagnostic of the Late Archaic (Anderson and Joseph 1988; Ledbetter, et al. 1986). The exact temporal positions of many of these points are debatable. Some of these, such as the Halifax type defined by Coe (1964) and the MALA type identified by Sassaman (1988), co-occurr with and even predate Savannah River points during the terminal Middle Archaic and the initial Late Archaic. Some terminal Late Archaic points like the Otarre Swannoa type, in turn, overlap with the Early Woodland (Anderson 1985:32). At least in general, however, large Savannah River points were replaced by smaller "Late Archaic stemmed" points over the course of the Late Archaic period.

The Environmental Setting and Subsistence

By the time of the Late Archaic, the Hypsithermal had ended and the Southeastern climate had shifted to one much like that of today. Paleobotanical studies suggest that vegetation probably became more stable during the period, with a mixed pine and hardwood forest developing in the Piedmont (Delcourt and Delcourt 1987).

The diversity of point types and the appearance of steatite and fiber tempered pottery are examples of technological innovations taking place during the Late Archaic. Another innovation is seen in paleobotanical remains from Late Archaic contexts. These remains suggest that a number of plants including squash, marsh elder, sunflower, and chenopodium, were domesticated during the Late Archaic in the Southeast. Although the development of cultivation was probably a long, continuous process with foundations in the Middle Archaic, the most conclusive evidence to date suggests that "between 2000 and 1000 B.C. native North American crop plant species were initially brought under domestication in eastern North America" (Smith 1986:1566). The extent of this cultivation on the Piedmont at this time is largely unknown.

Beginning with the Late Archaic, it becomes increasingly difficult to dismiss the natural setting as a simple stimulus to which prehistoric peoples responded. Although human manipulation of the environment was undoubtedly taking place much earlier, during the Late Archaic this action reached a scale of sufficient magnitude as to be visible in the archaeological record. On archaeological sites in eastern Tennessee, Chapman, et al. (1982) have noted an increase in disturbance-related plant taxa during the Late Archaic, and they relate this to land clearing associated with sedentism and cultivation. Yarnell and Black (1985:98), in their analysis of botanical remains from over a hundred Archaic and Woodland sites in the Southeast, note a general increase in seed bearing plants in Late Archaic contexts and conclude that "anthropogenic factors may have become a much more significant influence on the nature of local habitats" at this time. Clearly, the nature and intensity of prehistoric land use changes dramatically with the Late Archaic.

Results

I identified six Late Archaic components in the project area, and eight were identified on the North Oconee Reservoir Project. With the exception of a single "classic" Savannah River point of metavolcanic material, all of these were small, quartz Late Archaic stemmed points. Given the relatively small number of Late Archaic components in the sample, I have not attempted to separate preceramic and ceramic phases of Late Archaic settlement. Instead, I consider all of these components as a roughly contemporaneous occupation, which should be sufficient for establishing broad temporal trends.

Table 5. Late Archaic Components in the Project Area Identified on This Survey (*) and on The North Oconee Project (**) (Ledbetter and Braley 1990).

Site #	Late Archaic Component	Other Component(s)	Topography	Stream Rank	Lithic Materials	Density	Size (ha)
*9JK112	LA stemmed	MA	ridge nose	1	QTZ	high	2.0
*9JK122	LA Stemmed	-	ridge top	1	QTZ	low	0.41
*9BK80	LA Stemmed	HI	ridge top knoll	1	QTZ,	low	0.6
*9MD64	Savannah River	MA, WD, MS	ridge nose	3	QTZ	high	2.0
*9MD78	LA Stemmed	-	ridge nose	1	QTZ	low	0.01
*9MD93	LA Stemmed	MA	saddle on ridge top	1	QTZ	low	0.02
**9JK65	LA Stemmed	EA, MS, HI	ridge nose	3	QTZ, CPC, MV	medium	3.0
**9JK71	LA Stemmed	-	ridge nose	3	QTZ	medium	1.4
**9JK78	LA Stemmed	HI	ridge nose knoll	2	QTZ	low	0.64
**9JK79	LA Stemmed	WD	ridge nose	2	QTZ, MV, GS	low	0.4
**9JK80	LA Stemmed	-	ridge nose	2	QTZ	low	0.3
**9JK81	LA Stemmed	-	saddle on ridge top	1	QTZ, RVC, GS	high	0.12
**9JK82	LA Stemmed	-	ridge nose	2	QTZ	low	0.12

EA=Early Archaic; MA=Middle Archaic; WD=Woodland; MS=Mississippian; HI=Historic
QTZ=Quartz; RVC=Ridge/Valley Chert; PTC=Piedmont Chert;
CPC= Coastal Plain Chert; MV=Metavolcanic; GS=Groundstone

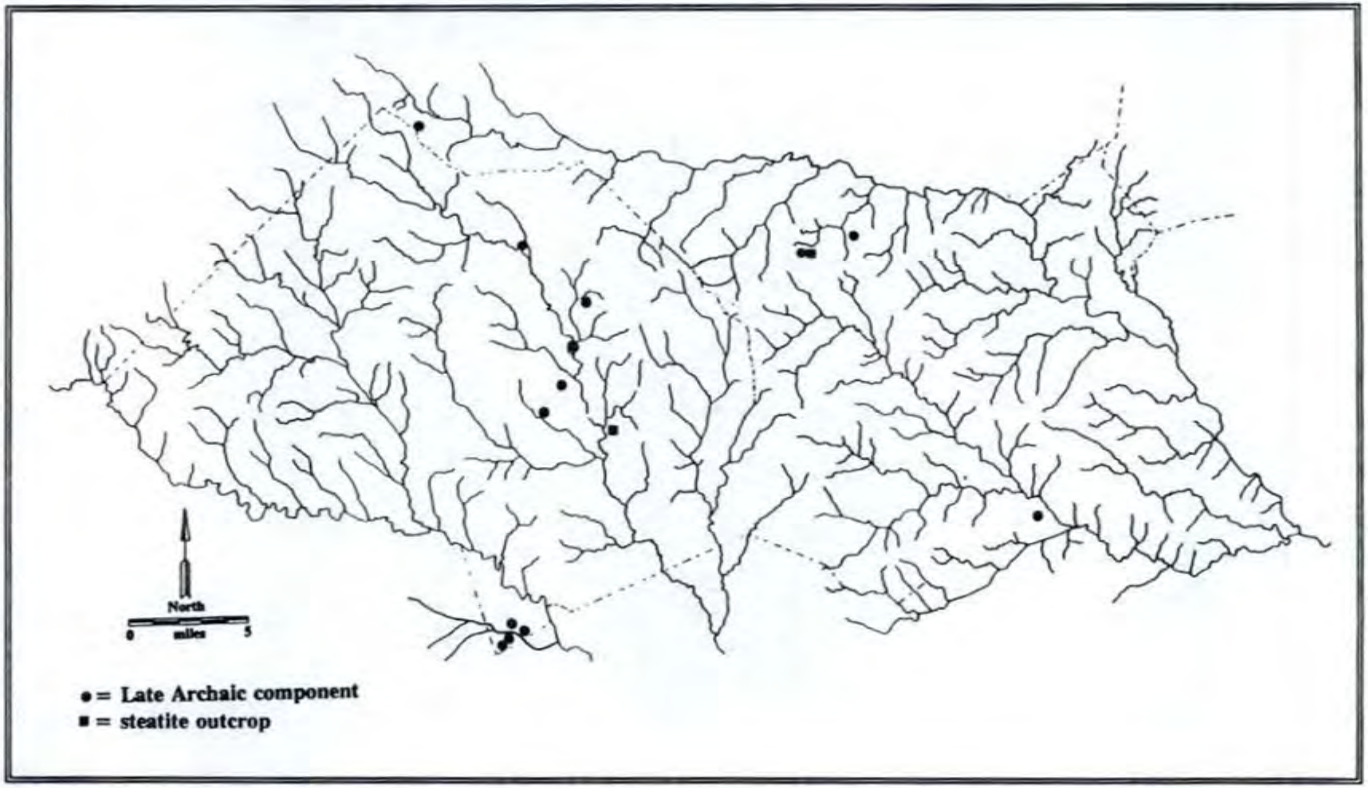


Figure 26. Map of the project area showing the location of Late Archaic components identified on this survey and on the North Oconee Project (Ledbetter and Braley 1990), and the approximate location of known steatite outcrops.

As was the case with the Middle Archaic, most Late Archaic sites are located on ridge noses and ridge tops. However, Late Archaic sites tend to occur more frequently on landforms near larger, Rank 3 streams. In addition, there is an increase in site size. Late Archaic sites average 0.85 hectares, and 23 percent are located on Rank 3 streams. These figures are double the corresponding averages for Middle Archaic sites. Late Archaic sites also displayed slightly higher artifact densities, averaging in the medium range. The average ratio of tools to debris remained unchanged at 0.3:1, but Late Archaic assemblages in the project area demonstrate more frequent use of materials other than quartz, including steatite.

Discussion

Models of Late Archaic settlement in the Southeast are generally comparative, using the contrast between the Middle and Late Archaic periods to argue for at least seasonally more permanent settlement. For example, in the transition from Middle to Late Archaic, White (1982) and Sassaman (1983) have noted a shift toward more intense, semi-permanent occupation of floodplain sites, with reduced and more specialized use of the uplands. More recently, both Alterman (1987:309) and Sassaman (1988) have added what could be considered a third tier to the Late Archaic settlement system. They suggest that the dense Late Archaic shell middens along the Savannah River represent aggregation points where people from the entire valley would meet for social and economic activites, such as rituals and trade.

Settlement data from Jackson and Madison Counties is consistent with at least part of these models. The fourteen components I analyzed in greater detail indicated some substantial differences between Middle and Late Archaic settlement in the project area. First of all, there is a dramatic reduction in the total number of components, both in the project area and across the Piedmont (see Figure 27). This is probably a result of decreased residential mobility, rather than a decline in population.

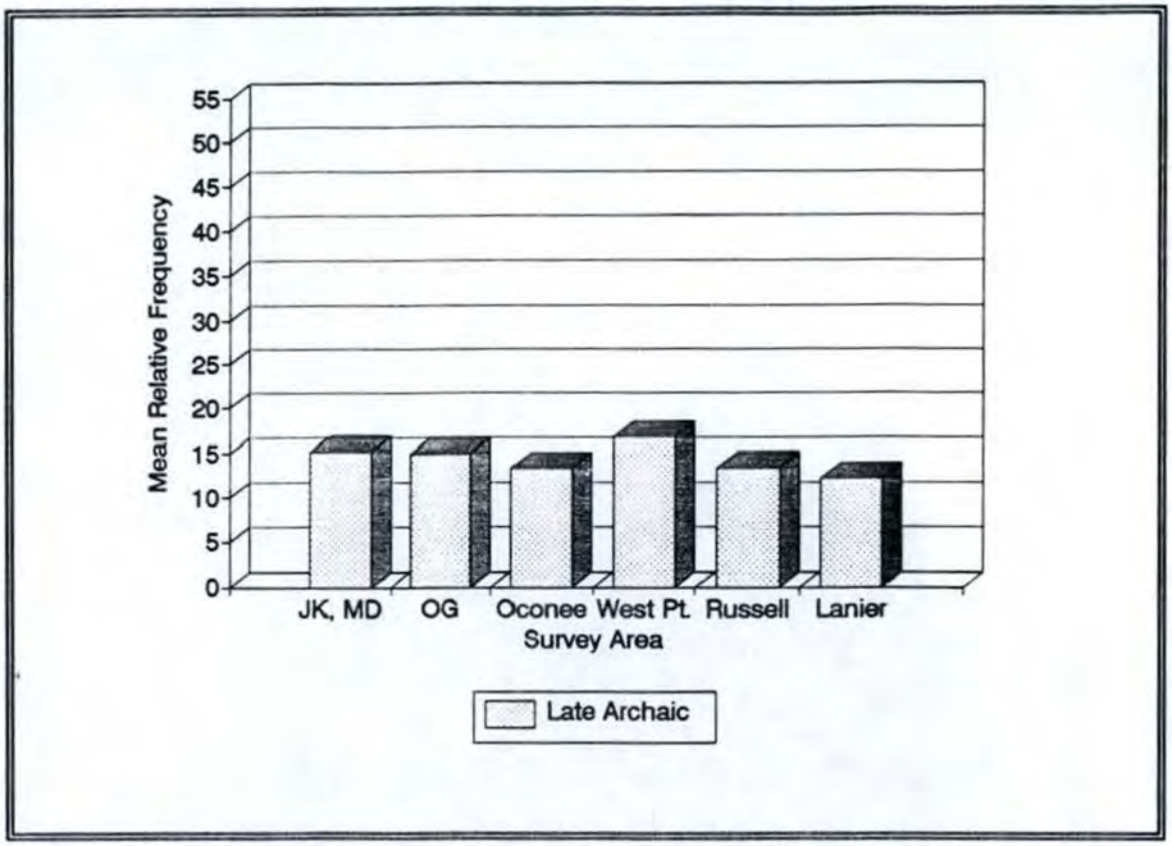


Figure 27. The relative frequencies of Late Archaic components from various surveys in the Georgia Piedmont.

Next, in contrast with the redundancy of Middle Archaic sites, Late Archaic components appear to be divided between larger, more intensely occupied riverine sites and smaller upland sites with fewer, and less diverse artifacts. All of the Late Archaic sites on Rank 3 streams exhibit either high or medium artifact density and are much larger than the overall average for sites containing Late Archaic components (note that two of these three are multi-component, however). Only one of the five Late Archaic components on Rank 1 streams had artifact density above the low range and this site, 9JK112, appeared to be a specialized quarry site. In addition, only one of these five sites produced anything more than quartz tools or debris, while half of the Late Archaic sites on higher order (Rank 2 or 3) streams yielded more than quartz, including in three instances fragments of soapstone vessels.

Late Archaic settlement in the project area, then, definitely displays evidence of more sedentary occupation of riverine sites when compared with the Middle Archaic. However, Late Archaic occupation of the project area does not appear to be either as complex or as intense as the portions of the Savannah River valley from which these models were developed. Certainly, there is no evidence of any significant poulation aggregation (either local or regional) in the project area during the Late Archaic and shell middens have yet to be identified in either of the two counties. Overall, Late Archaic settlement in Jackson and Madison Counties appears to more closely resemble that of the Oconee Valley to the south, where surveys have shown that Savannah River points are infrequent and intensively occupied sites are rare (Ledbetter 1991:251). The strong correlation between high density Late Archaic sites and soapstone outcrops that has been observed in lower portions of the Oconee Valley (Elliott 1980; Ledbetter 1991:251), however, does not appear to extend into the headwaters. Soapstone outcrops in Jackson County have been noted by previous investigators (Braley 1990; Ledbetter and Braley 1990; Elliott 1981), and I discovered a source in northern Madison County, but the locations of these outcrops does not appear to correspond in a consistent manner with the distribution of Late Archaic sites (see Figure 26).

Conclusion

Late Archaic settlement of the project area is substantially different from that of the Middle Archaic. However, as we shall see in the following chapters, the Late Archaic clearly lies in the center of a continuum that ranges from the high residential mobility of preceding periods to the sedentism characteristic of ensuing occupations. The lack of fiber tempered pottery, large aggregation sites, and substantial population densities suggest that the project area might have been peripheral to some of the technological innovations that were taking place in other parts of the Southeast.

CHAPTER 9

THE WOODLAND PERIOD

Our knowledge of the Woodland period in the Southeast could, perhaps, be most accurately described as selective. Although certain aspects of Woodland life are fairly well understood, others, including settlement and even chronology in many areas, remain poorly documented. Only a modest number of Woodland components have been identified in Jackson and Madison Counties to date, but put in the context of broader trends north of the Fall Line, even these few components can provide insight into the Woodland occupation of northern Georgia.

Background

The Cultural Setting

With the Woodland period, ceramics replace projectile points as the principal diagnostic artifacts. Woodland period ceramics are tempered with sand and crushed stone, and are often decorated on the exterior surface. The Woodland ceramic chronology for northern Georgia is based primarily on the works of Wauchope (1966) and Caldwell (1958). This sequence begins with the appearance of Dunlap Fabric Impressed and Dunlap Simple Stamped ceramics during the Early Woodland (ca. 1000 to 200 B.C.). Caldwell (1958) recognized assemblages of these types as the "Kellog Complex." Early Woodland projectile points include some of the small square stemmed forms such as Otarre, Swannoa, and Gypsy that first appeared in the Terminal Late Archaic (Anderson 1985:32).

The Middle Woodland (200 B.C. to A.D. 600) is characterized by several ceramic styles, but the most prominent is the Cartersville series, which include Plain, Check Stamped, and Simple Stamped varieties (Caldwell 1958, Anderson 1985:32). Cartersville ceramics have been traditionally dated from ca. 300 B.C. to A.D. 300 (Anderson 1985:32), but more recent studies have suggested that these wares, or at least some variation of them, may persist considerably later in some areas (Garrow 1975; Anderson and Joseph 1988:246-7). Well executed Swift Creek Complicated Stamped ceramics also appear during the Middle Woodland period. In many cases small amounts of Swift Creek ceramics are found in association with Cartersville materials, but on the whole it appears that Swift Creek pottery does not become common in northern Georgia until the late Middle and Late Woodland periods. Square stemmed points are replaced by triangular and indented base triangular forms such as Yadkin and Copena during the Middle Woodland.

Throughout much of eastern North America, complex cultures such as Adena and Hopewell arose during the Middle Woodland period. The extent to which these cultures influenced the Woodland cultures of Georgia is open to debate. Certain sites in southwestern and extreme northwestern Georgia (Anderson 1985), such as Mandeville and Tunnacunnee, were clearly tied into what has been termed the Hopewellian Interaction Sphere (Caldwell 1964). Apart from these centers, however, the interaction appears to consist mainly of the infrequent occurrence of galena, copper, meteorite, and other exotic materials in Middle Woodland contexts. There is, however, a dramatic increase in social and cultural complexity in Georgia during the Middle Woodland period, as evidenced by fairly widespread mound construction, status differentiation, and an apparent increase in regional trade.

With the Late Woodland (ca. 600 to 800 A.D.) there is an increasing diversity of decorative ceramic styles. In addition to the aforementioned Swift Creek ceramics, the rectilinear stamped Napier series also appears in northern Georgia during the Late Woodland. Another rectilinear stamped tradition, the Woodstock series, has traditionally been dated to the early portion of the Mississippian period, but clearly has its roots in the Late Woodland (Hally and Rudolph 1986; Ledbetter and Braley 1990:11). Convention has Swift Creek replaced by Napier during the Late Woodland, with Woodstock, in turn, succeeding Napier at the transition to the Mississippian period. However, as Rudolph (1991) has suggested, and as this chapter will illustrate, the accuracy of this generalized chronology is quite debatable.

Social change during the Late Woodland is also largely open to debate and interpretation. A decrease in the frequency of mound construction and the occurrence of exotic artifacts could be indicative of a decline in social complexity. Recent authors have suggested that the Late Woodland witnessed a "reduction in the spatial extent of alliances necessary to reproduce social relations, along with the discontinued use of exotic goods once used to cement these alliances" (Nassaney and Cobb 1991:306).

In this and future chapters, I will refer to Woodstock and other ceramic phases that have been associated with more culturally Mississippian elements as Emergent Mississippian, although they may actually occur during the Late Woodland period. Woodstock components, therefore, will be mentioned briefly in this chapter, but will be considered in more depth in the following chapter, within the context of the Mississippian period.

The Environmental Setting and Subsistence

The Southeastern climate during the Woodland Period was probably very similar to that of today. The vegetation was probably also fairly similar, with the exception of more hardwood trees, and, of course, much less cleared land. Probably the most significant change over the preceding Late Archaic was in the quality and quantity of human manipulation of the environment. If the Late Archaic is the period when cultivation began in the Southeast, then the Woodland is a time at which it intensified and became widespread. Botanical remains from Woodland contexts throughout the Southeast indicate increasing reliance on locally grown crops (Smith 1986:1566-1570). Bruce Smith has suggested that a "food production economy" first emerged in the region between 250 B.C. and 200 A.D. This economy consisted of the four domesticates cited in the previous chapter, with the addition of erect knotweed, maygrass, and "little barley." Corn may have been introduced to the Southeast as early as A.D. 175, but remained a minor dietary component until the Mississippian period (ibid.). Despite the presence of some cultivation, acorn, hickory, and walnut (Yarnell and Black 1985), as well as terrestrial and aquatic fauna, probably constituted the bulk of the diet during the Woodland period.

Results

Table 6 summarizes the Woodland diagnostic components that were identified on the North Oconee Reservoir Project and on my survey. Table 7 lists Woodland components that have been identified on other surveys in the project area. The locations of Cartersville components are shown in Figure 28. Figure 29 indicates the location of Swift Creek and/or Napier components.

Only one possible Early Woodland ceramic, a fabric marked sherd found on the surface of 9JK54, has been recovered from the project area to date. As was noted previously, many of the Terminal Late Archaic point types overlap into the Early Woodland, making it difficult to separate these time periods without more sensitive temporal markers such as ceramics.

Table 6. Woodland Components in the Project Area Identified on This Survey (*) and on The North Oconee Project (**) (Lebetter and Braley 1990).

Site #	Woodland Component(s)/ Diagnostic(s)	Other Component(s)	Topography	Stream Rank	Lithic Materials	Density	Size (ha)
*9JK138	Swift Creek	MS	terrace	3	QTZ, MV	medium	0.2
*9MD60	Mid-Late Woodland	MA, MS	ridge nose	3	QTZ, MV, PTC	high	0.75
*9MD64	Mid-Late Woodland	MA, LA, MS	ridge nose	3	QTZ,	high	2.0
**9JK54	Cartersville Swift Creek Copena Bradley Yadkin	EA, MS, HI	terrace	3	QTZ, RVC, CPC, MV, GS	high	15.0
**9JK62	Swift Creek Yadkin	-	ridge slope	3	QTZ, RVC	low	.36
EA=Early Archaic; MA=Middle Archaic; LA=Late Archaic; MS=Mississippian; HI=Historic QTZ=Quartz; RVC=Ridge/Valley Chert; PTC=Piedmont Chert; CPC= Coastal Plain Chert; MV=Metavolcanic							
Note: Woodstock components are discussed in Chapter 10.							

Table 7. Other Woodland Sites In The Project Area.

Site Number	Identified By/Reference	Component(s) Identified
9JK11	Jeffries and Hally (1975)	Cartersville
9JK13	Branch	Cartersville
9JK14	Cartledge	Cartersville
9JK18	Wood and Hally (1976)	Cartersville
9JK24	Kelly	Cartersville Napier
9JK32	Price (1989)	Cartersville Swift Creek (?) Napier
9JK45	Price (1989)	Cartersville
9MD1	Wauchope (1966)	Cartersville
9MD2	Wauchope (1966)	Cartersville
9MD37	Price and Wood (1989)	General Woodland
9MD38	Price and Wood (1989)	General Woodland
9MD45	Price and Wood (1989)	General Woodland
Note: Woodstock components are discussed in Chapter 10.		

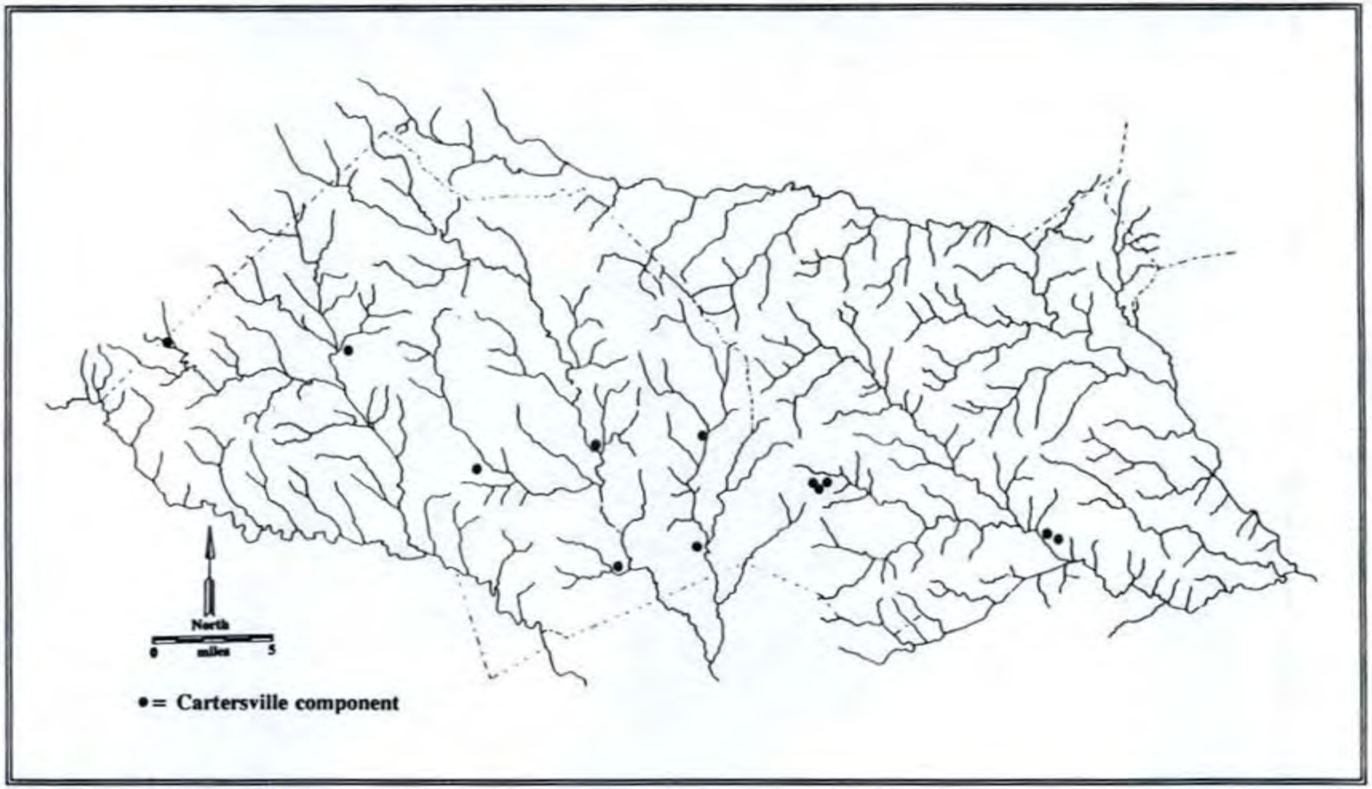


Figure 28. Map of the project area showing the location of all recorded Middle Woodland Cartersville components.

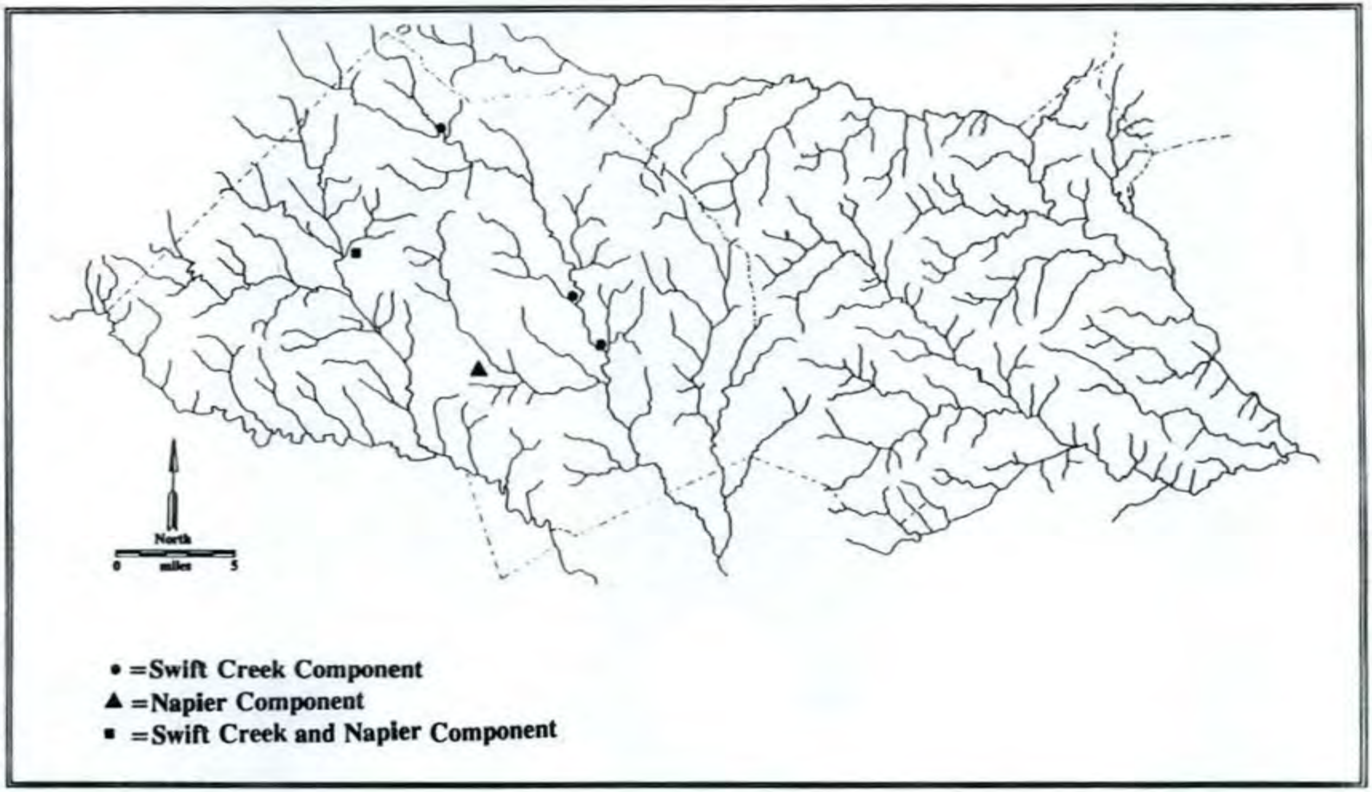


Figure 29. Map of the project area showing the location of all recorded Middle to Late Woodland Swift Creek and Late Woodland Napier components.

Middle Woodland components are, in contrast, fairly common in the project area. To date, 10 sites containing Middle Woodland Cartersville components have been identified in Jackson and Madison Counties. Relatively high artifact densities have been reported for two of these sites, 9JK54 (Ledbetter and Braley 1990) and 9JK14 (Georgia State Site Files, 1993).

Middle to Late Woodland Swift Creek components are comparatively rare in Jackson and Madison Counties, and have been identified on only three sites in the project area. Only a small amount of Swift Creek ceramics have been recovered from any of these sites. Late Woodland Napier ceramics are also rare in Jackson and Madison Counties, and have been identified on only two sites. These components, however, exhibited slightly higher artifact densities.

Although the total number of Woodland components in my sample is lower than that of the preceding Late Archaic period, Woodland sites are both larger (averaging 3.66 hectares or 0.83 hectares without 9JK54) and have a higher artifact density (average in the high range) than Late Archaic sites. These figures may reflect increasing sedentism during the Woodland period. Further evidence for this interpretation comes from the fact that Woodland components average 0.6 tools for every piece of lithic debris, a ratio that is higher than that of any other period. All of the Woodland components that have been identified to phase are located on Rank 3 streams.

As this chapter will illustrate, however, there are some indications that the Woodland settlement system may have been two-tiered, consisting of more permanent home sites in riverine areas and shorter-term camps and other specialized sites in the uplands. If this is true, the averages I have cited here are skewed toward the former site type, which is the most likely to yield diagnostic ceramics.

Discussion

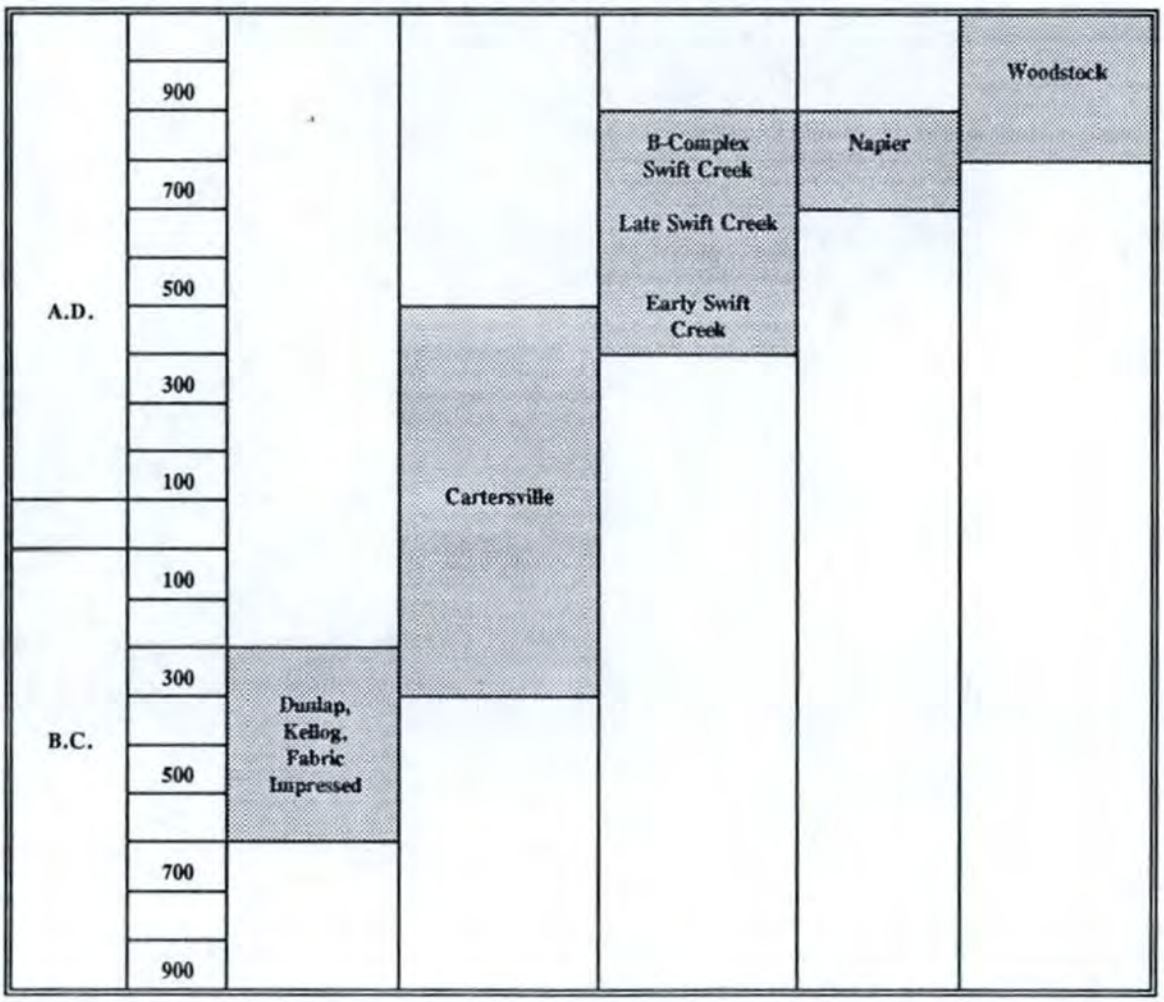
With the increase in sedentism that accompanies the Woodland period, it becomes important to make a distinction between *occupation* and *utilization*. I use the latter term to describe settlement that would be consistent with brief visitation to the area by small groups of people, probably of the same sex, for the purpose of exploiting specific resources. On the other hand, I use the term *occupation* to refer to seasonally sedentary settlement, probably by a domestic group or household for periods longer than a few days. Occupation in this sense can be recognized archaeologically by the presence of a hierarchy of sites. At its most basic level, such a settlement hierarchy consists of: 1) residential sites exhibiting high artifact densities and a variety of artifact types and materials, and 2) smaller, specialized activity sites with fewer, and less diverse artifacts. As this discussion will illustrate, changes in the archaeological record of the Woodland period in Jackson and Madison Counties are presumed to be the result of shifts from utilization to occupation.

A chronological chart displaying the approximate temporal range of Woodland ceramic styles is presented as Figure 30. In order to understand the regional distribution of these styles, and the extent of settlement during the intervals these styles were in use, I calculated the number of components of each type that have been recorded in all of the Georgia counties north of the Fall Line. In order to correct for survey bias, these component counts are expressed as a percentage of the total number of sites in each county (Figures 31-35).

The apparent lack of Early Woodland sites in the project area mirrors the results of surveys elsewhere in the Oconee River valley. O'Steen (1993a) reports that Early Woodland components were rare in the archaeological surveys of both Lake Oconee and Lake Sinclair (in the lower Piedmont Oconee Valley). Although there are clearly chronological problems that need to be addressed, a decrease in the occupation of the entire Oconee River Valley seems plausible.

Slightly higher numbers of Early Woodland components and evidence of more permanent occupation have been identified in other drainages in northern Georgia. This is particularly true of the Etowah River valley (Caldwell 1957), but also, to a lesser extent, on either side of the Oconee Valley in the Chattahoochee (Caldwell 1953) and Savannah (Anderson and Joseph 1988) River valleys. The Oconee Valley, including Jackson and Madison Counties, could have served as a separation between

Figure 30. The Temporal Positions of Woodland Ceramic Traditions.



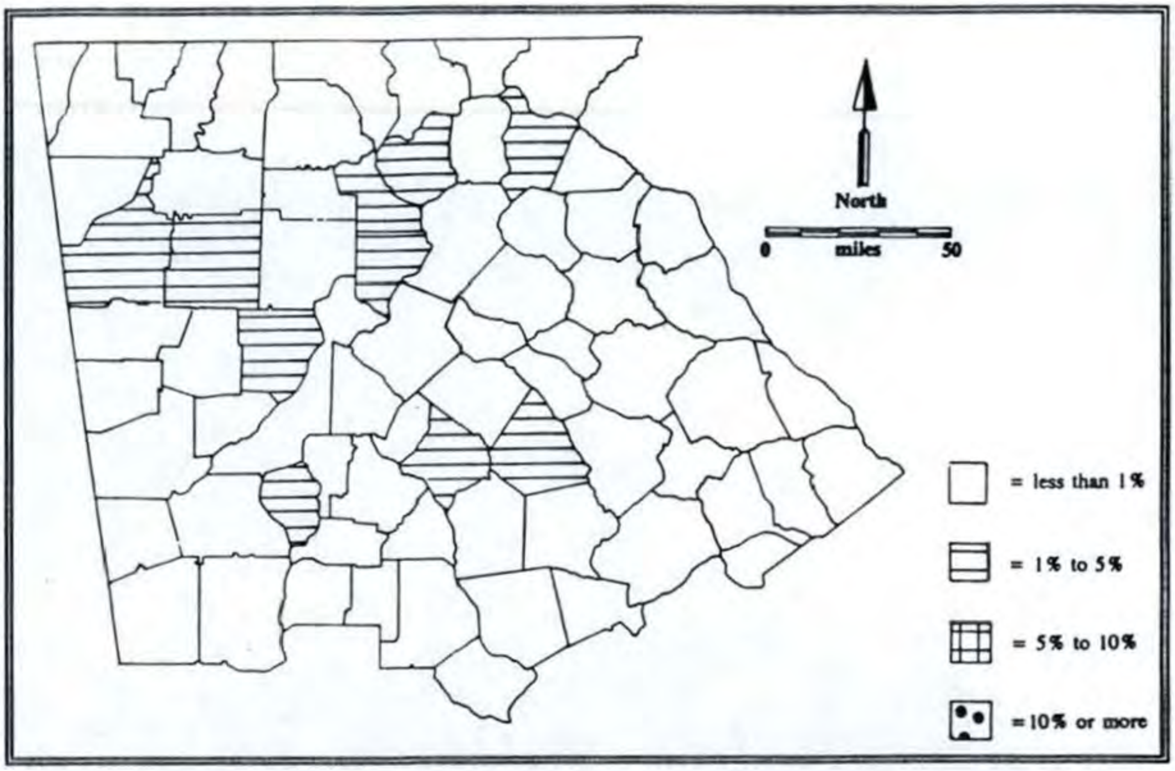


Figure 31. The frequency of Early Woodland Fabric Impressed, Dunlap, and Kellog components in northern Georgia counties (Georgia State Site Files 1993).

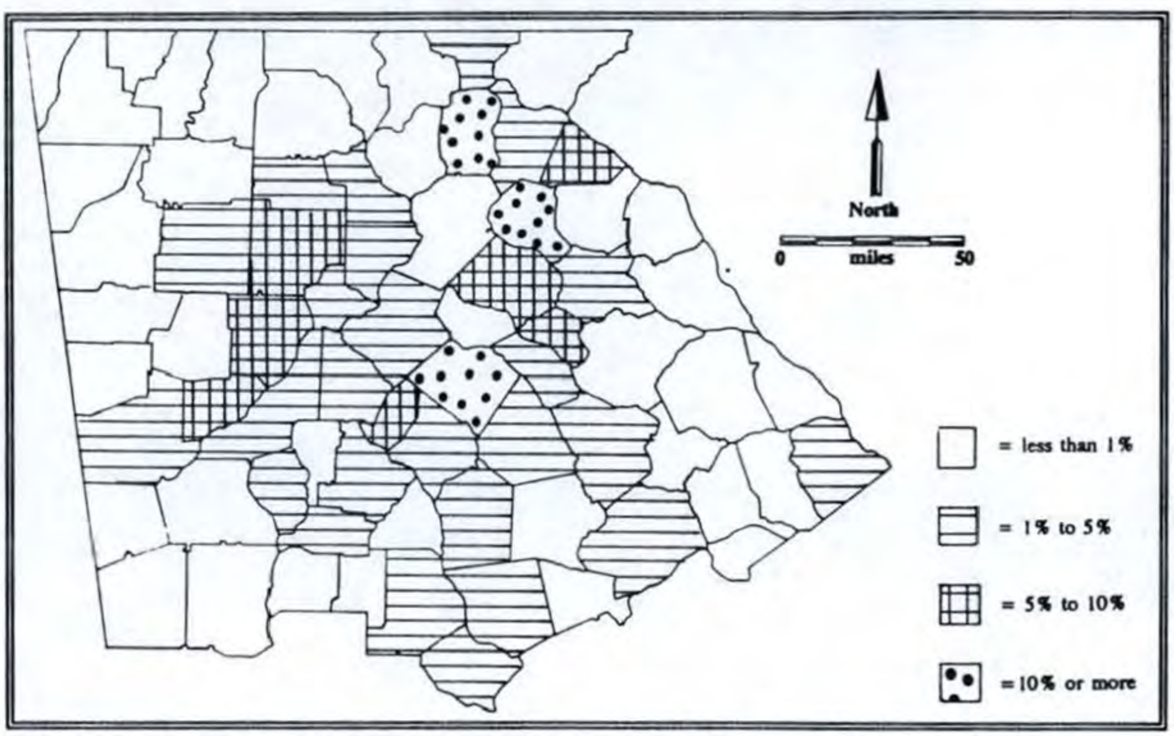


Figure 32. The frequency of Middle Woodland Cartersville and Deptford components in northern Georgia counties (Georgia State Site Files 1993).

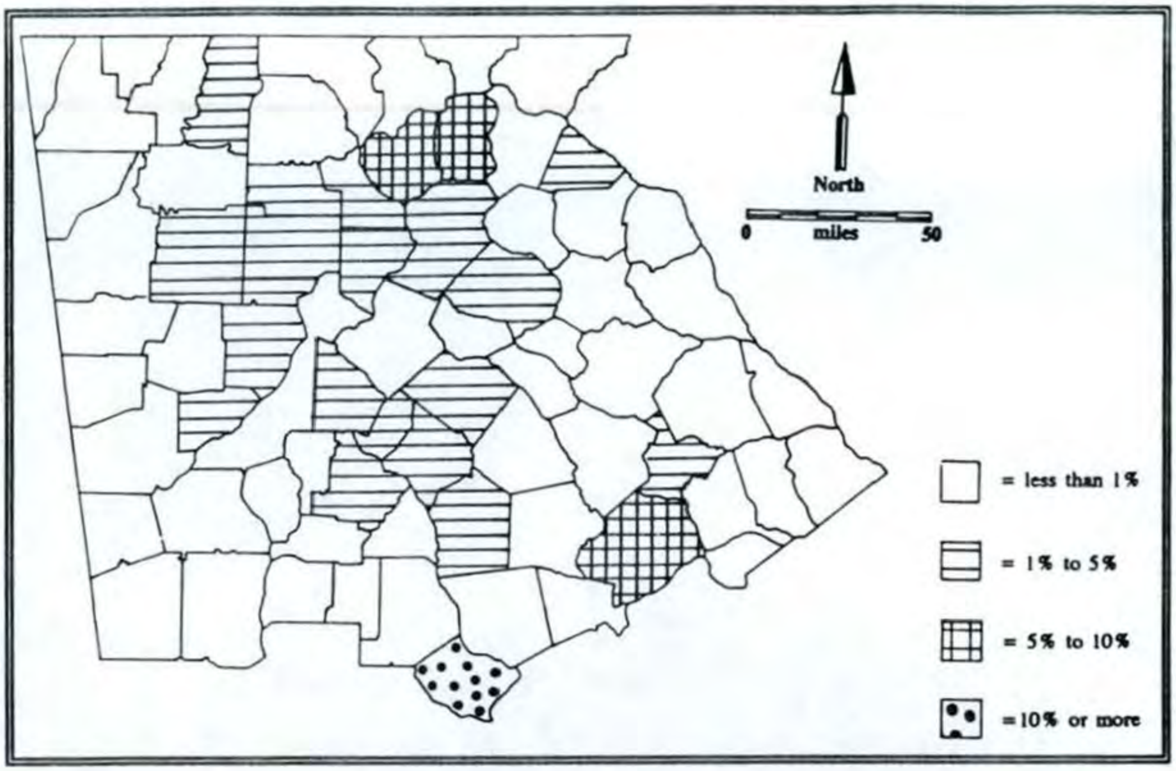


Figure 33. The frequency of Middle to Late Woodland Swift Creek components in northern Georgia counties (Georgia State Site Files 1993).

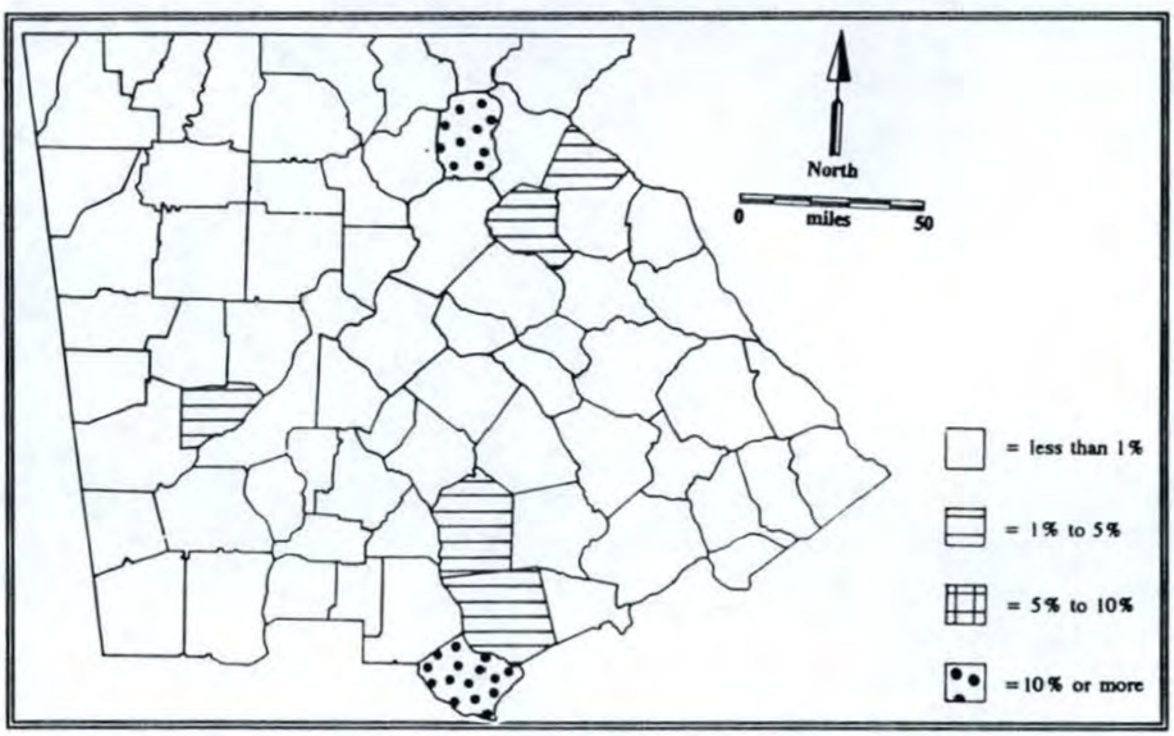


Figure 34. The frequency of Late Woodland Napier components in northern Georgia counties (Georgia State Site Files 1993).

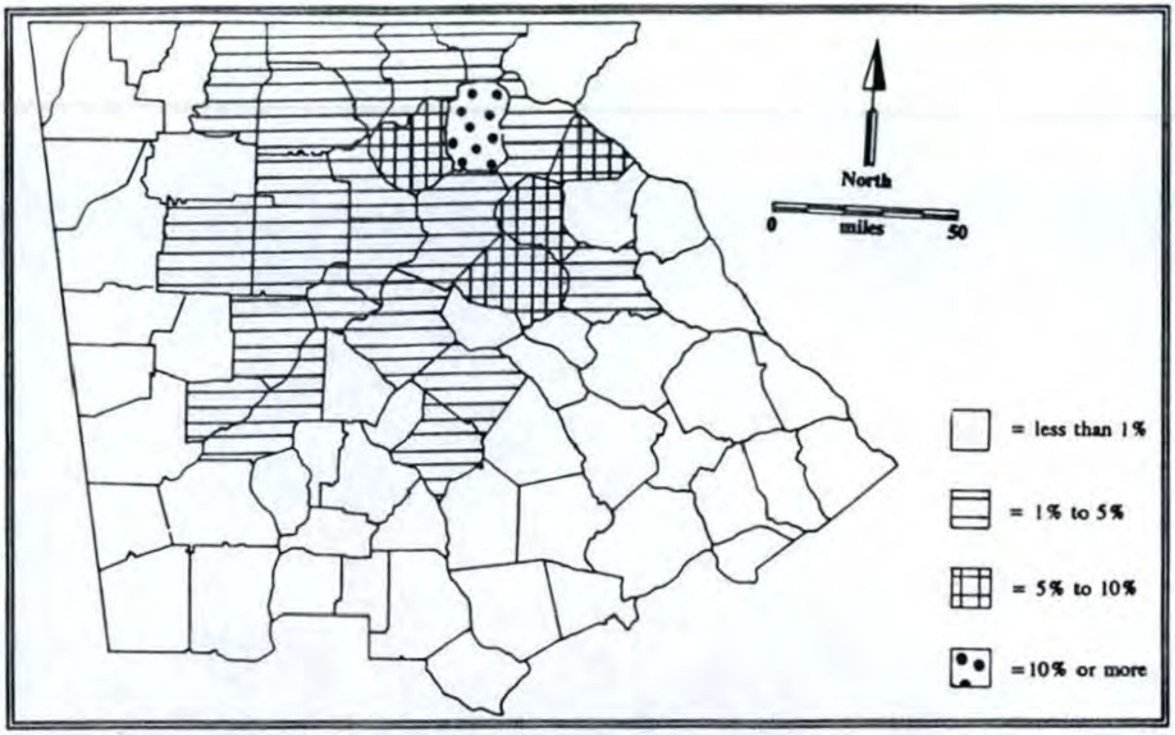


Figure 35. The frequency of Emergent Mississippian Woodstock components in northern Georgia counties (Georgia State Site Files 1993).

more densely populated areas, and may have been infrequently occupied or used only for specialized activities. Early Woodland settlement elsewhere in northern Georgia shows signs of continued aggregation in riverine environments, a trend that began during the Late Archaic (Caldwell 1953, 1957; Anderson and Joseph 1988).

In any case, the characteristic Woodland settlement and technology that appears earlier in some parts of northern Georgia does not materialize in Jackson and Madison Counties until the Middle Woodland. Cartersville phase components have been recovered from a number of locations throughout the project area, but there may be a small concentration along the main channel of the North Oconee River. The range of materials recovered from 9JK54, and the location of this site near some of the most extensive floodplain in the project area, suggests that this might have been a Middle Woodland village (Ledbetter and Braley 1990). Other Middle Woodland sites in this same general area (Midgette 1968, Georgia State Site Files), could have been smaller, satellite homesteads located both up and downstream from this main site. Woodland sites in the surrounding uplands, represented by several Yadkin projectile point occurrences in the area to the northwest of 9JK54 (Susan Deaver, personal communication 1993) and small scatters of plain Woodland-like ceramics throughout the project area, may represent foraging activity or seasonal upland habitation by people based permanently along the North Oconee River. This array of sites may represent the first definitive evidence of sedentary occupation in the project area.

The Cartersville phase occupation of the project area seems to be fairly typical of broader developments throughout northern Georgia. A review of the records of the Georgia State Site Files indicates that Cartersville components are common in counties north of the Fall Line (Figure 32). While several counties display slightly higher site densities, on the whole the Cartersville occupation of northern Georgia appears to consist mainly of many small population centers spread relatively evenly across the landscape. The extensive distribution of Cartersville pottery, when compared with the more limited occurrence of Early Woodland ceramics (Figure 31), would seem to indicate an increase in population and an expansion of settlement during the Middle Woodland. If settlement data from the project area is indicative of the changes taking place in northern Georgia during this period, small homesteads and villages might have developed in riparian environments across the region. The relatively even distribution of Cartersville components across northern Georgia could suggest adaptation to a wide variety of natural areas. The presence of residential sites near floodplains could indicate increasing horticulture, perhaps small gardens near a cluster of households. However, the larger numbers of small, upland sites undoubtedly signal the continued importance of hunting and gathering.

Relative to the abundance of Cartersville phase sites, sites containing Middle to Late Woodland Swift Creek and Late Woodland Napier ceramics are infrequent in the project area. The few, low density Swift Creek components appear to represent only specialized activities, and could be related to the Middle Woodland Cartersville occupation. Napier components, while exhibiting somewhat higher artifact densities, are so few in number that they can only represent very brief or infrequent occupation of the project area.

Settlement data would seem to suggest that local populations either declined or migrated out of the project area during the 300-500 year interval between the Middle Woodland Cartersville and Emergent Mississippian Woodstock occupations. Until a more likely candidate for a residential site emerges in the two counties, it seems more accurate to assume that the area was *utilized* rather than *occupied*. Perhaps other areas attracted people away from the headwaters region. During the Middle Woodland period, mounds were constructed further south in the Oconee Valley at Cold Springs (9GE10) and Little River (9MG46). During the Late Woodland, mound construction ceased in the Oconee Valley, but mounds were constructed in the Chattahoochee Valley at Annewakee Creek (9FU14) (Dickens 1986), and possibly also at Summerour (9FO44), to the west of the project area.

A comparison of the frequency and distribution of Cartersville ceramics with those of later styles such as Swift Creek, Napier, and Woodstock illustrates some of the changes that took place in northern Georgia in the first millennium A.D. A single, evenly distributed Middle Woodland ceramic tradition (Cartersville) appears to have given way to a several ceramic styles (late Swift Creek, B-Complex Swift Creek, and Napier), which are more geographically limited in their distribution. Sometime during the Late Woodland these ceramics were associated with and/or succeeded by terminal Late Woodland and Emergent Mississippian ceramic traditions such as Woodstock, which have a more spatially restricted distribution.

In some sections of northern Georgia, such as Jackson and Madison Counties, the paucity of Swift Creek and Napier ceramics may reflect real depopulation during the Late Woodland. The apparent demographic decline in the project area after the

Cartersville phase could reflect a reduction in the size of group territories during the Late Woodland, as the distribution of ceramic styles seem to suggest. It could also be a product of a shift back to population aggregation in large river valleys during the period. With increases in sedentism, horticulture, and social complexity during the late Middle and Late Woodland periods, upland and interfluvial areas such as Jackson and Madison Counties may have been utilized less frequently.

This, however, would not explain why the project area was re-occupied during the Emergent Mississippian period, when these same processes were still taking place. Moreover, a lack of Swift Creek and Napier sites in other extensively surveyed areas in northern Georgia, including floodplain-rich areas such as the Savannah (Anderson and Joseph 1988:246-7) and Etowah (Caldwell 1947; Ledbetter et al. 1986:228) River valleys, indicates that the problem of the "missing" Late Woodland is not restricted to Jackson and Madison Counties or upland environments (Rudolph 1991).

The scarcity of "classic" Late Woodland diagnostics in much of northern Georgia may require that we rethink our assumptions of an orderly progression of region-wide ceramic traditions during the period. Recent analyses have suggested temporal overlap between Middle and Late Woodland ceramic styles. Rudolph (1991), for example, has suggested that B-Complex Swift Creek pottery persists well into the Late Woodland, where it co-occurs with Napier in portions of the Piedmont. In response to a lack of Swift Creek and Napier ceramics in the Savannah River Valley, Anderson and Joseph (1988:247) have suggested that there were subtle changes in ceramics in the area, such that finer-tempered plain, simple stamped, and brushed "Cartersville" ceramics may have been contemporaneous with Swift Creek and Napier during the Late Woodland. Finally, Stanyard and Baker (1993) have suggested that Woodstock might have appeared earlier than has previously been suspected. If their date (770 A.D.) is correct, some Woodstock components may also be contemporaneous with Napier and "B-Complex" Swift Creek during the terminal portion of the Late Woodland.

In some areas of northern Georgia, therefore, the lack of Swift Creek and Napier may not signal a decline in settlement, but instead a shift in ceramic styles during the Late Woodland. This does not appear to be the case in Jackson and Madison Counties, however, where my analysis of all the collections housed at the University of Georgia failed to discover the presence of a distinct Late Woodland ceramic tradition that could help fill the gap between Cartersville and Woodstock.

A lack of chronological control and a great deal of regional variation obscure the changes that take place in northern Georgia during the Late Woodland. The uneven distribution of Late Woodland ceramic styles such as Swift Creek and Napier, and the possible development of other, locally occurring styles, could be indicative of social change during the period. If so, the temporal and spatial complexity that is apparent may be a glimpse into the evolution of Mississippian societies.

Conclusions

The picture that emerges of settlement in Jackson and Madison Counties during the Woodland period is one of relatively permanent occupation during the Cartersville phase, with only limited utilization before and after this. The Cartersville occupation of the project area may have been part of an expansion of settlement across northern Georgia, as populations increased and dispersed from their points of aggregation in the Early Woodland. The reasons for the decline in occupation of the area during the Late Woodland are less clear, but may also be related to changes taking place across the region, as settlement shifted back to the main courses of larger streams, or as the size of group territories became smaller.

CHAPTER 10

THE MISSISSIPPIAN PERIOD

The Mississippian period marks the pinnacle of cultural complexity in the prehistoric Southeast. Jackson and Madison Counties are uninhabited throughout much of this period, but the perspective to be gained from "peripheral" areas such as these may well provide the contrast that better defines Mississippian settlement and land-use.

Background

Dating from approximately 800 to ca. 1700 A.D. the Mississippian culture of the southeastern United States is far too complex to be summarized in a few paragraphs. Some of the most significant changes over earlier periods, however, include the widespread adoption of an agricultural economy based principally on maize, the development of chiefdom-level social and political organization (Hudson 1976; DePratter 1983), and the formation of a settlement system that typically consisted of large nucleated villages surrounded by small hamlets and farmsteads (Smith 1986).

The myriad changes that take place in material culture during the Mississippian period are also too numerous to summarize here. Continuing archaeological survey and excavation in the Oconee Valley, northwestern Georgia, and the Savannah River Valley have resulted in finely detailed chronologies for what are assumed to have been some of the centers of Mississippian settlement in northern Georgia. Figure 36 summarizes the Mississippian chronologies for the middle and lower Piedmont Oconee River Valley (based on Williams and Shapiro 1990, Elliott and Wynn 1991) and the upper Savannah River valley (based on Hally 1990) and presents a chronology for the upper Oconee (based on my research; Ledbetter and Braley 1990; and Ledbetter and O'Steen 1986).

The earliest Mississippian pottery type in the project area is Woodstock Complicated Stamped. Small triangular Hamilton points are frequently found on Woodstock sites, sometimes in large quantities, but these also occur later, in association with Etowah and Savannah ceramics. Both temporally and culturally, the Woodstock phase is clearly transitional between the Woodland and Mississippian Periods. Both Wauchope (1966) and Caldwell (1953) originally considered Woodstock a Middle Woodland culture. Subsequent excavations of an apparently palisaded Woodstock phase settlement at Woodstock Fort (9CK85), and of an "Early Woodstock association" temple mound (Caldwell 1953) at the Summerour Mound site (9FO16), however, convinced many archaeologists that Woodstock is, both temporally and culturally, a Mississippian culture. However, as Hally and Rudolph (1986) have pointed out, the association of these Mississippian-like features with the Woodstock components at the two sites is less than definitive. Nevertheless, excavations of Woodstock sites throughout northern Georgia have produced carbon dates ranging from 770 A.D. (Stanyard and Baker 1993) to 1020 A.D. (Hally and Rudolph 1986) clearly making the Woodstock occupation of northern Georgia contemporaneous with more definitively Mississippian cultures elsewhere in Georgia (e.g., Macon Plateau) and throughout the Southeast.

Across northern Georgia, a number of different Late Woodland and Emergent Mississippian ceramic traditions are replaced by rectilinear stamped Etowah ceramics around A.D. 1000. At approximately A.D. 1250 the Etowah period is succeeded by

Date (A.D.)	Mississippian Sub-Period	Middle Oconee Valley Phase	Upper Savannah Phase	Upper Oconee/ Headwaters Phase
1750 1650		deserted	Estatoe	Late Lamar, Wolfskin?
1650 1600 1580	Lamar	Bell	? Tugalo	
1580 de Soto 1520		Dyar		Combined Early/Middle Lamar (uninhabited buffer zone?)
1520 1450		Iron Horse		
1450 1375		Duvall	Rembert	
1375 1250	Savannah	Scull Shoals	Beaverdam	Combined Etowah/ Savannah
1250 1100	Etowah	Stillhouse	Jarrett	
1100 950		Armor	?	
? 800	Transitional Woodland/ Mississippian	Vining		Woodstock

Figure 36. Mississippian chronologies for the Middle Oconee, Upper Savannah and Upper Oconee regions of northeast Georgia.

the Savannah period, which is recognized archaeologically primarily by the appearance of curvilinear stamped ceramics. It is at this time that many of the hallmarks of Mississippian culture (e.g. monumental architecture, status differentiation, corn agriculture) become common in the archaeological record. The transition between these two periods is relatively subtle, and is often difficult to determine without a large collection of ceramics. Within Jackson and Madison Counties, Etowah and Savannah ceramics occur on only a small number of sites, and in very low density. As a result, components dating to these general periods have been combined into the single designation "Etowah/Savannah."

Shifting mound centers and fine distinctions in ceramic decorations allow archaeologists to separate the 300 year Lamar period (A.D. 1350 to 1650) into distinct phases of approximately 75 years duration. Unfortunately, these assignments also rely on large collections of sherds that are difficult to obtain through surface collection alone.

At least in general, however, the Lamar period and Lamar ceramics can be separated into Early (A.D. 1350-1450), Middle (A.D. 1450-1550), and Late (A.D. 1550-1800) sub-periods (Hally 1986:9). On the basis of temper and decoration, Lamar ceramics from the project area can generally be classified as Middle and Late Lamar.

Work by Ledbetter and others has led to the recognition of a local variant of Late Lamar in the Upper Oconee area. The Late Lamar ceramics from Jackson and Madison Counties bear a close resemblance to this complex, which has been termed "Wolfskin" (Ledbetter and O'Steen 1986). In the most detailed description of the complex, the authors note that it is composed of:

> ...Dyar and Bell Phase ceramic styles mixed with complicated stamping and fine to medium, multiple line incised ceramics produced on a distinctive blue-white paste suggestive of historic Indian wares. The complex does seem to be a blend of dark paste Dyar/Bell ceramic styles

> and vessels produced by a reduction firing technique known to be in use on eighteenth century lower Cherokee sites...

In an unpublished manuscript, Ledbetter (n.d.) suggests that the percentage of complicated stamping on Wolfskin sites in Oglethorpe County is as much as 62 percent on a sample of 15 sites in one survey tract. Unfortunately, the exact temporal position of the Wolfskin complex is unknown. The mix of Dyar and Bell styles, however, would seem to suggest that it dates from ca. 1550 to perhaps as late as 1670 (Ledbetter, n.d.; Williams 1990).

Although the Wolfskin designation has not been widely adopted (c.f. Freer 1989), I have chosen to use it here for a number of reasons. The first of these is that a number of Late Lamar components in the project area have already been designated as Wolfskin by previous researchers, and it would be inconsistent to adopt a different terminology. Perhaps more importantly, however, the Late Lamar ceramic assemblages from the upper Oconee are clearly unlike anything in the established chronologies for the Oconee or Savannah River valleys (which may not be entirely applicable to peripheral areas such as Jackson and Madison Counties). On the basis of these differences, and their geographical separation, the Late Lamar ceramics in the area deserve a separate designation.

Results

Mississippian components identified on my survey and on the North Oconee Reservoir Project are listed in Table 8. All other Mississippian components in the project area appear in Table 9. In light of recent advances in ceramic phases for the Oconee Valley, and because several assemblages were never adequately analyzed, I have presented revised identifications of some of the collections that are stored at the University of Georgia.

Table 8. Mississippian Components in the Project Area Identified on This Survey (*) and on The North Oconee Project (**) (Ledbetter and Braley 1990).

Site #	Mississippian Component(s)	Other Component(s)	Topography	Stream Rank	Lithic Materials	Density	Size (ha)
*9JK138	Lamar, Wolfskin?	WD	terrace	3	QTZ	medium	0.2
*9JK141	Woodstock	-	ridge nose	2	QTZ, RVC, GS	high	
*9MD60	E. Mississippian Lamar, Wolfskin?	MA, WD	ridge nose	3	QTZ, MV	high	0.75
*9MD64	Lamar, Wolfskin	MA, LA, WD	ridge nose	3	QTZ,	high	2.0
*9MD77	Lamar, Wolfskin	-	ridge nose	1	QTZ	low	0.36
**9JK46	Lamar, Wolfskin	-	ridge nose	3	QTZ	low	0.08
**9JK47	Lamar, Wolfskin	-	ridge nose	3	QTZ	low	0.36
**9JK49	Lamar, Wolfskin	-	knoll	1	QTZ	low	0.25
**9JK50	Lamar, Wolfskin	-	ridge nose	2	QTZ, RVC	medium	0.25
**9JK52	Lamar, Wolfskin	-	terrace	3	QTZ	low	0.28
**9JK53	Lamar, Wolfskin	-	terrace	3	QTZ	medium	0.25
**9JK54	Etowah/Savannah Lamar, Wolfskin	EA, WD, HI	terrace	3	QTZ, RVC, CPC, MV, GS	high	15.0
**9JK55	Woodstock	-	ridge nose	3	QTZ	low	0.2
**9JK56	Etowah/Savannah	-	ridge nose	3	QTZ	low	
**9JK58	general Lamar	-	terrace	3	QTZ	low	2.0
**9JK59	Woodstock	EA	ridge nose	3	QTZ, PTC	high	1.2
**9JK63	Lamar, Wolfskin	-	ridge nose	3	QTZ	medium	0.24
**9JK65	Late Lamar, Wolfskin?	EA, LA, HI	ridge nose	3	QTZ, CPC, MV	medium	3.0
**9JK67	Etowah/Savannah	-	levee	3	QTZ, RVC	medium	0.6
**9JK68	Woodstock?	-	terrace	3	MV, RVC, PTC	low	0.15
**9JK72	Etowah/Savannah	-	levee	3	QTZ	low	0.04
**9JK74	Woodstock	-	ridge nose	2	QTZ, RVC, PTC	high	0.24
**9JK75	Early Mississippian	-	terrace	2	RVC, QTZ	low	0.45
**9JK77	Lamar, Wolfskin	-	ridge slope	2	QTZ	low	0.16

EA=Early Archaic; MA=Middle Archaic; LA=Late Archaic; WD=Woodland; MS=Mississippian; HI=Historic
QTZ=Quartz; RVC=Ridge/Valley Chert; PTC=Piedmont Chert;
CP= Coastal Plain Chert; MV=Metavolcanic; GS=Groundstone

Table 9. Other Mississippian Sites In The Project Area.

Site Number	Identified By/ Reference	Component(s) Identified	Revised Component Identification
9JK11	Jeffries and Hally (1975)	Savannah Late Lamar	Savannah L. Lamar, Wolfskin
9JK13	Branch	general Lamar	
9JK14	Cartledge	Lamar, Duvall	
9JK15	Jeffries and Hally (1975)	Woodstock/Etowah	Woodstock
9JK17	Wood and Hally (1976)	general Lamar	
9JK18	Wood and Hally (1976)	Etowah general Lamar	
9JK24	Kelly		Napier Woodstock Early/Middle Lamar L. Lamar, Wolfskin
9JK25	Kelly		L. Lamar, Wolfskin
9JK39	Hally	general Lamar	
9JK40	Hally	general Lamar	
9JK43	Elliot and Kowalewski	general Lamar	L. Lamar
9MD1	Wauchope (1966)	Woodstock general Lamar	
9MD2	Wauchope (1966)	Woodstock Etowah general Lamar	
9MD3	Wauchope (1966)	general Lamar	
9MD19	Wood	L. Lamar Wolfskin	
9MD43	Price (1989)	Woodstock?	
9MD54	Ferguson	general Lamar	
9MD55	Williams	L. Lamar, Wolfskin	

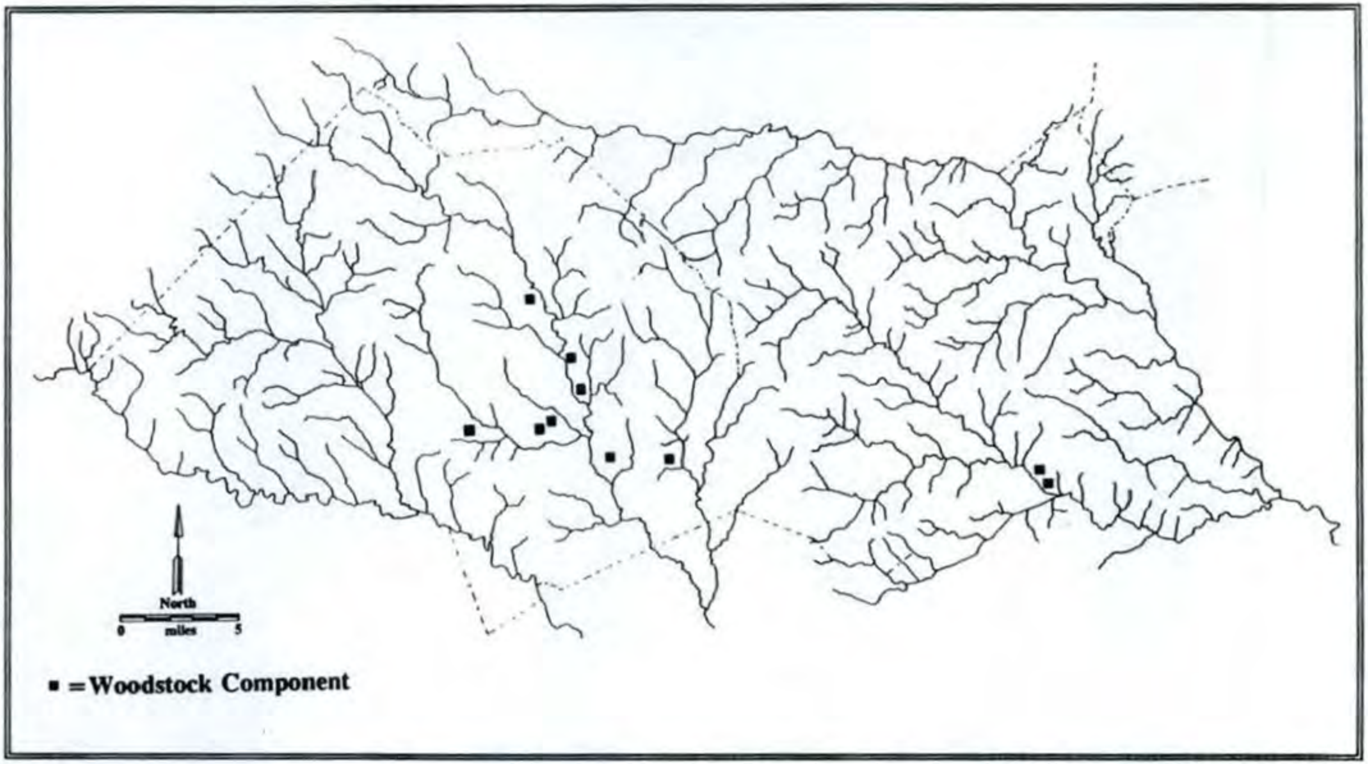


Figure 37. Map of the project area showing the location of all recorded Woodstock components.

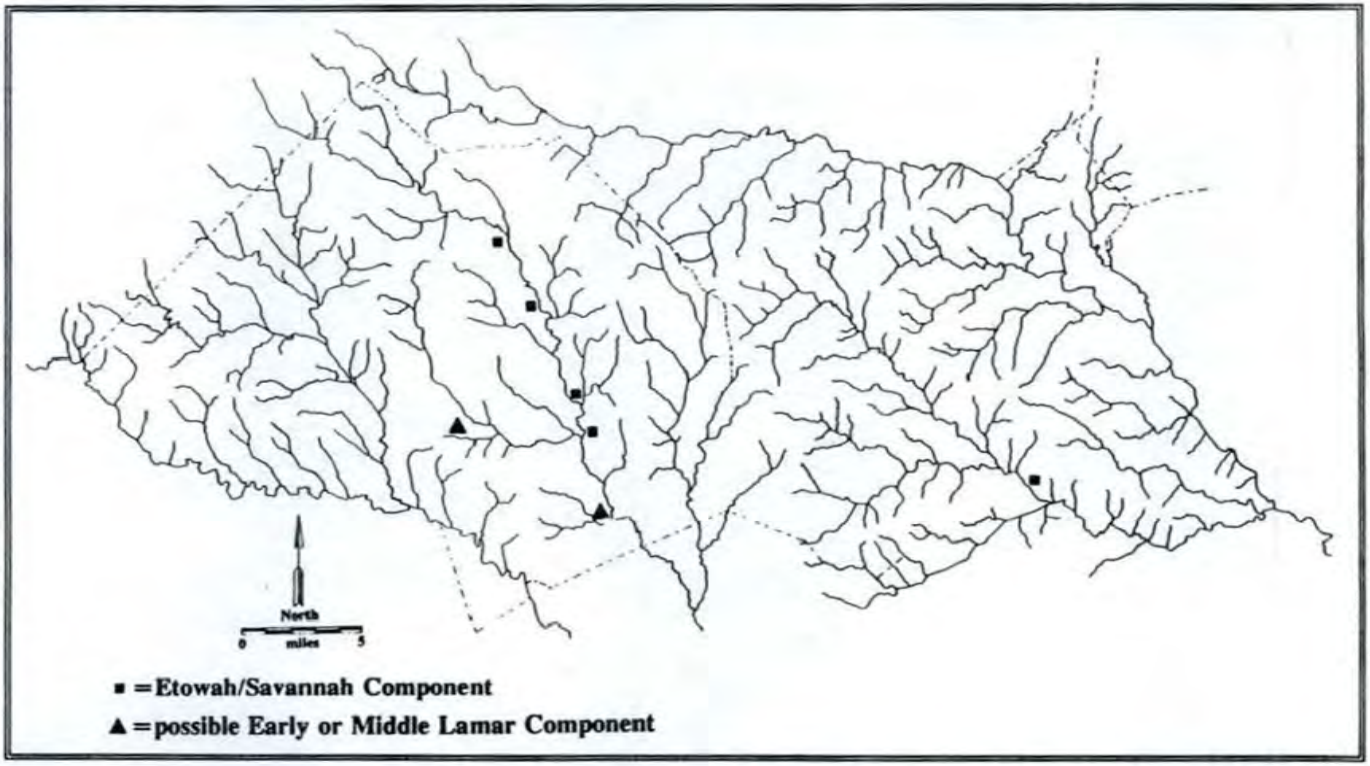


Figure 38. Map of the project area showing the location of all recorded Etowah, Savannah, and Early Lamar components.

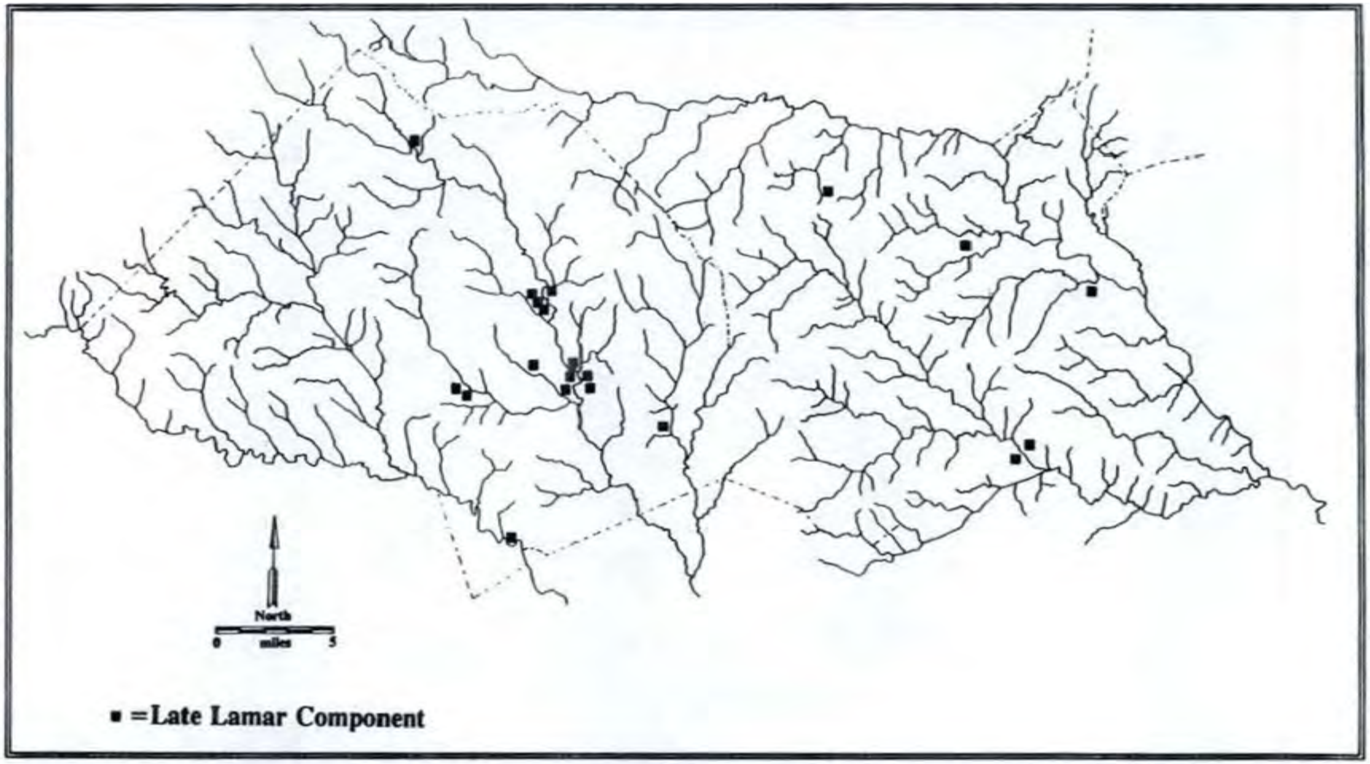


Figure 39. Map of the project area showing the location of all recorded Late Lamar and Late Lamar, Wolfskin phase components.

My own survey identified only five definitively Mississippian components, while 19 were found on the North Oconee Project (Ledbetter and Braley 1990). This disparity clearly bears out a preference for riverine environments during this period. Of the 24 Mississippian sites in this sample, 74 percent are located on terraces, levees, or ridge noses along large Rank 3 streams. Several other trends can be discerned by comparing these sites with the sample of Woodland sites analyzed in the previous chapter. Average artifact density is slightly lower during the Mississippian period, and sites are, on average, somewhat larger (12.8 hectares, or 6.2 hectares without 9JK54). In addition, the ratio of tools to debris is lower (0.3:1).

Sites containing Emergent Mississippian Woodstock ceramics are common in the project area, occurring on a total of 9 sites. Many of these were identified on the North Oconee Reservoir Project, but a number of others have been recorded by various individuals and CRM projects in the two counties, including Wauchope (1966) and Midgette (1968). In addition, several Woodstock sites have recently been identified in southern Banks County, just north of and across the Hudson River from Madison County (Georgia State Site Files 1993).

Woodstock components in Jackson and Madison Counties occur in a relatively diffuse scatter along the larger rivers and tributaries of the two counties, but appear to be more common near the North Oconee River in Jackson County. In my sample, sites dating to this period are usually found on landforms above the floodplain, but are rare in true upland locations more than two kilometers from Rank 2 or 3 streams. Most of the Woodstock components in the project area have low artifact densities, at least as evidenced from limited shovel testing and/or surface collection. Two components appear to be more substantial. The first of these, 9JK24, was collected by A.R. Kelly, and unfortunately has only a vague provenience (Georgia State Site Files 1993). The other, 9JK141, was recently located and surface collected by Jerald Ledbetter and me, with the assistance of Wendell Wilson, a Jackson County resident.

Artifact data indicates that these two higher density Woodstock components may represent residential sites, with the other, lower density sites reflecting specialized, short term activities.

Etowah and Savannah period components are less common in the area, occurring on 7 sites. Only one of these exhibited sufficient artifact density to be considered a residential site, and even in this case the evidence is equivocal. Although the change is not dramatic, occupation and/or utilization of the area clearly began to wane during the Early Mississippian period. Significant changes also took place in land use. Settlement data indicates a very clear preference for riparian landforms such as floodplains and terraces near large rivers during these two periods. It is perhaps not surprising, therefore, that my survey of predominantly upland tracts identified no components from this era.

The only recorded Early Lamar settlement in the project area to date is a Duvall phase component on a site in southern Jackson County that was recorded by Marsh Cartledge (Georgia State Site Files 1993). This identification was based on a small number of sherds, however, at a time when the Oconee Valley chronology was less detailed. For these reasons, it may be best to consider this component as general Lamar period. Relatively large numbers of bold incised ceramics and narrower rim folds in assemblages from 9JK24 and 9JK54 may indicate insubstantial Early or Middle Lamar components on these sites.

The project area was seemingly unoccupied and little utilized during much of the Lamar period, until very late when there was, apparently, a dramatic increase in the number of sites. Ten Late Lamar, Wolfskin phase components were identified by Ledbetter and Braley (1990). My own survey identified four components that have ceramics that most closely resemble the Wolfskin complex, but these assignments are tentative in that they are based on small collections.

In order to understand the nature of Late Lamar ceramic assemblages from the project area, I measured rim folds and incised lines, and calculated the percentages of stamped and plain body sherds for all of the collections to which I had access (see Appendix C). Since most of these collections are small, I have compiled two totals. The first includes all of the individual sites that are listed in the table. The second, a more geographically restricted sample, includes only sites in central Jackson County that are on or near the North Oconee River, and excludes 9JK24, which had earlier components that could have skewed the sample. These totals exemplify the high percentage of complicated stamping that is typical of Wolfskin assemblages. Components with more than ten sherds have a range of 35 to 100 percent stamped body sherds, with an overall average of 51.6 percent and an average of 62.0 percent on the more controlled sample. The average widths of rim folds are typical of Dyar (17-20 mm) or Bell phase (over 20 mm) assemblages (Williams 1990). Although I have not quantified data concerning the number of incised lines per sherd, which has proven to be a reliable temporal indicator in the Oconee Valley, a large percentage have incising that is typical of Late Lamar ceramics (Williams 1990).

Discussion

My research confirms the long-held but little tested assumption that Mississippian settlement along the upper Oconee and Broad Rivers was less intensive than that of areas further south in the Oconee dainage or to the east in the Savannah drainage. The breakdown of Mississippian components in the area by sub-period, however, reveals a surprising pattern (Figure 40). The number of components recorded per one hundred years of each subperiod or phase are distributed in a bimodal pattern. Relatively heavy occupation at the temporal boundaries of the period, first during the Emergent Mississippian Woodstock period and later during the

Late Lamar period, was separated by approximately five hundred years of lighter utilization or abandonment. I believe that this pattern can help illuminate some of the changes that took place in northern Georgia during the Mississippian period, and more specifically how those changes affected an area that was geographically peripheral to the centers of Mississippian development.

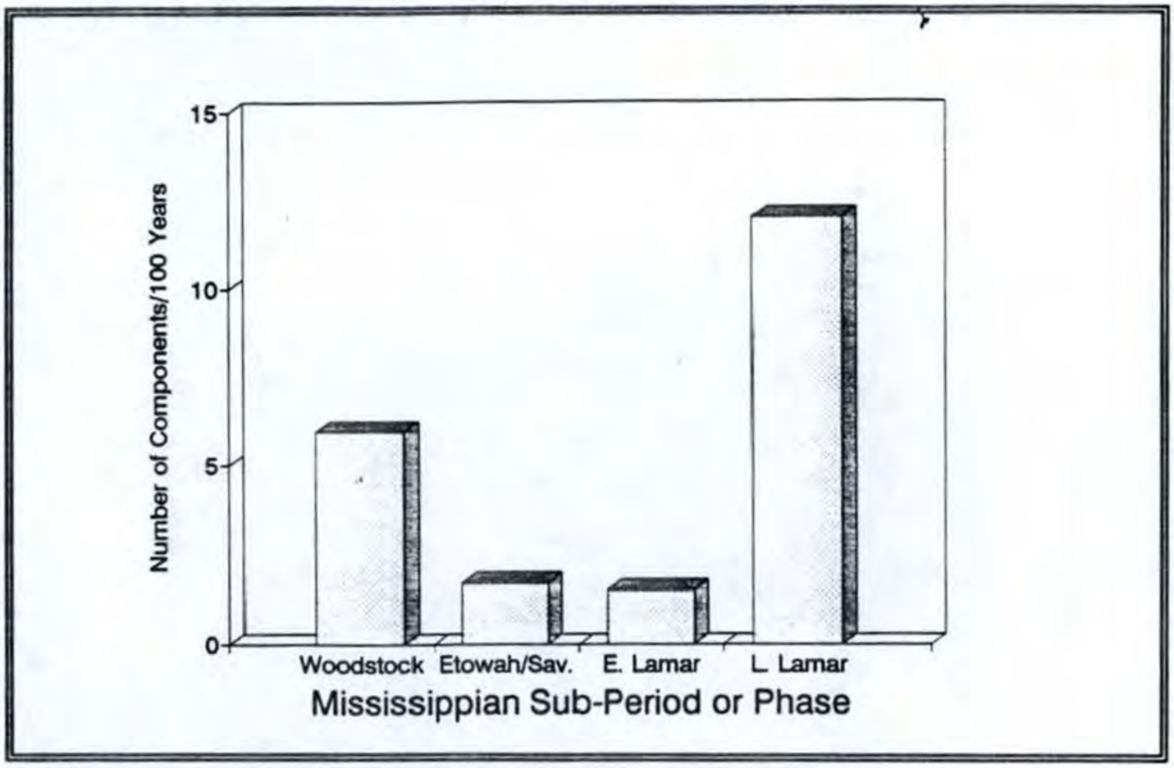


Figure 40. The number of components per one hundred years of selected Mississippian periods (based on all recorded sites in the project area).

The Emergent Mississippian Period

Previous researchers (e.g., Hally and Rudolph 1986; Rudolph 1991) have assumed that Woodstock ceramics did not extend east of the Chattahoochee River valley outside of a few scattered sherds. However, it has become apparent that the Woodstock sites in Jackson and Madison Counties, together with those from surrounding areas, add up to a fairly substantial occupation of the upper Oconee and Broad River valleys. Moreover, the nine Woodstock components in Jackson and

Madison Counties help delineate a broad pattern in the distribution of Woodstock sites across northern Georgia. A review of the records of the Georgia State Site Files indicates that the 154 sites in northern Georgia producing Woodstock ceramics are concentrated in the upper Piedmont and Blue Ridge provinces, and occur only sporadically to the south (Figure 41). Meanwhile, across the region as a whole, a number of contemporaneous Late Woodland and Emergent Mississippian ceramic phases or styles exist on the middle and lower Piedmont. With some overlap, Vining phase SimPle Stamped materials predominate in the middle and lower Oconee and Savannah River Valleys (Elliot and Wynn 1991), Macon Plateau ceramics are found on the middle Ocmulgee, and Averett ceramics appear on the middle Chattahoochee near the Fall Line (Hally and Rudolph 1986) (Figure 42).

The spatial separation of contemporaneous, yet stylistically distinct Late Woodland and Emergent Mississippian ceramic styles in northern Georgia is unparalleled in both succeeding and preceding periods. It is tempting to relate the evolution of these distinct "style zones" to the development of better defined and perhaps more autonomous social networks at the advent of the Mississippian period. Hargrave, Cobb, and Webb (1991) raise this possibility in their discussion of a similar distribution of Late Woodland style zones in southern Illinois. Their model, an adaptation of Braun and Plog's (1982) theory on the evolution of tribal social networks, proceeds as follows:

> ...a long-term trend of increasing population resulted in a greater reliance on cultigens (particularly maize) and population aggregation in major drainages. Close social and economic ties between neighboring groups increased in importance as a strategy for lessening the risks of food shortages caused by localized environmental disasters. In conjunction with spatial discontinuities in population distributions, these close ties led to the development of more bounded regional social networks. Participation in these networks was signaled through stylistic behavior, resulting in the development of distinct regional ceramic style zones (Hargrave, Cobb, and Webb 1991:169).

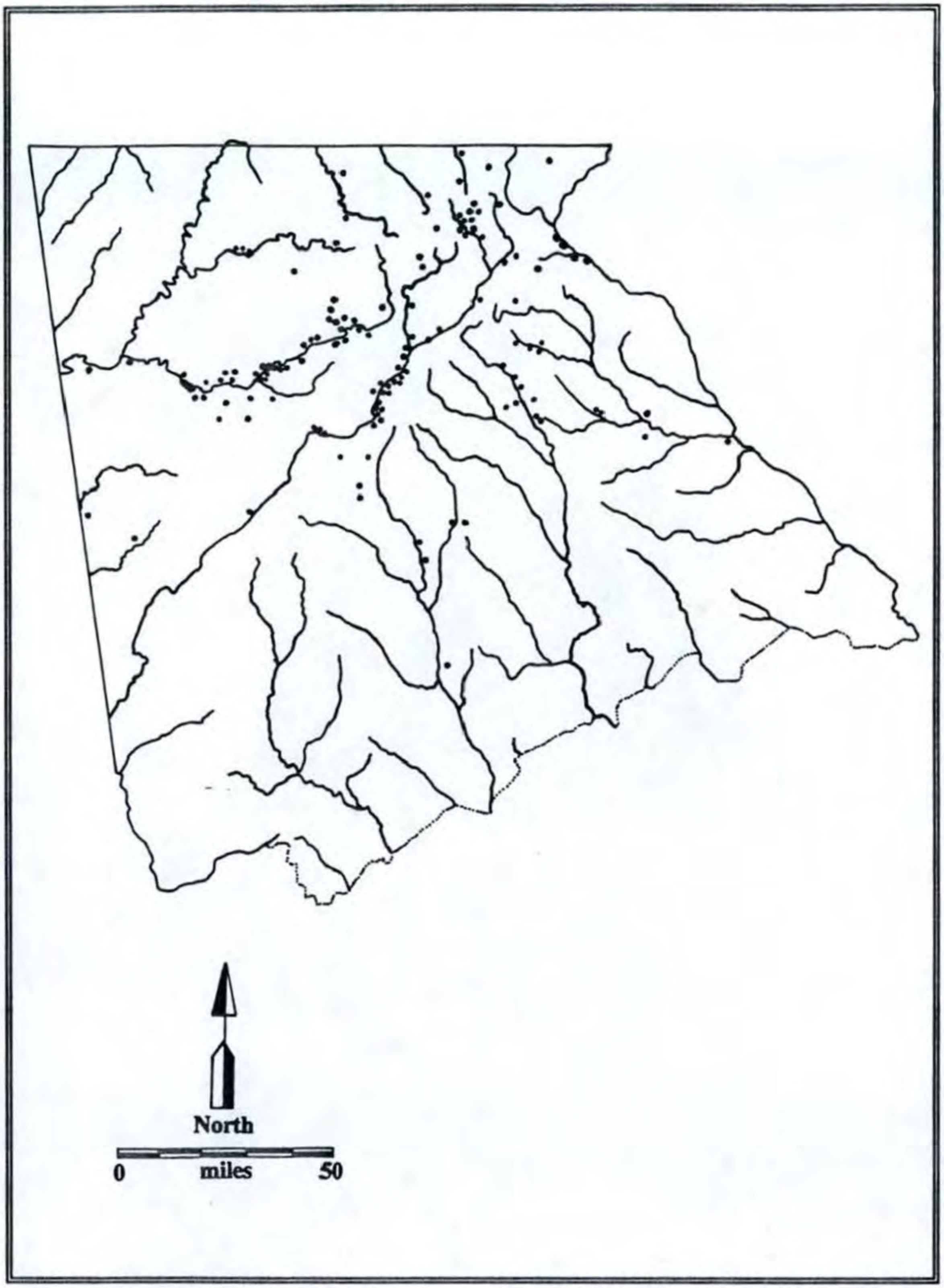


Figure 41. Distribution of sites yielding Woodstock ceramics in northern Georgia (Georgia State Site Files, 1993).

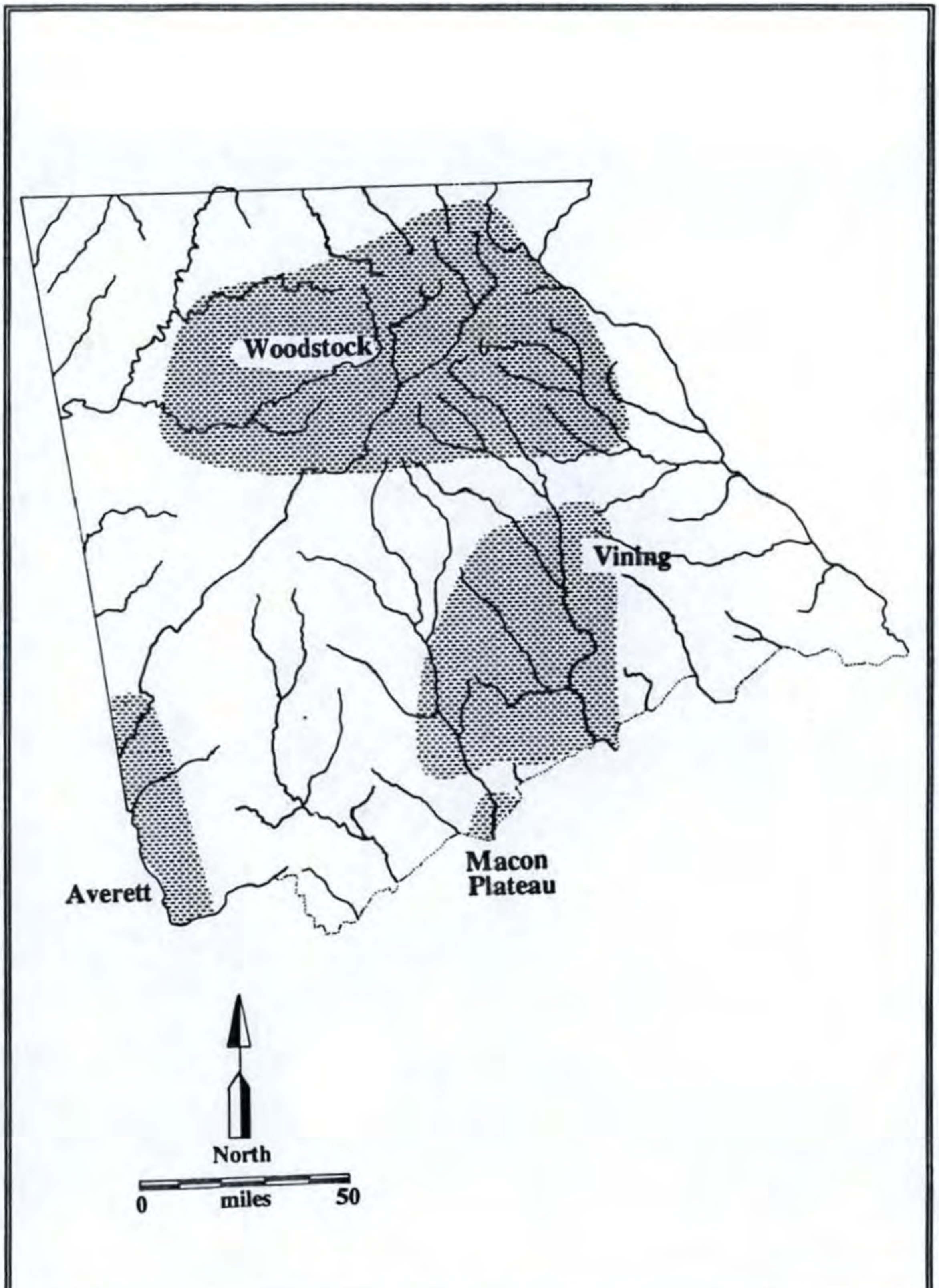


Figure 42. Approximate distribution of Late Woodland and Emergent Mississippian ceramic styles in northern Georgia (After Hally and Rudolph 1986).

Perhaps a similar process took place in northern Georgia. Although it is difficult to suggest that "environmental risk" was a mechanism for change in a region and time period where population levels appear to have remained relatively low, and where production was still primarily centered on hunting/gathering, there are indications that increases in population, sedentism, aggregation, and cultivation began during the Middle Woodland. Conceivably, an uneven distribution of people across the north Georgia landscape, combined with the increase in territoriality that often accompanies the transition to sedentism, could have eventually led to the development of more bounded local social networks (and therefore distinct ceramic style zones) across northern Georgia during the Emergent Mississippian period. Clearly, the localization of ceramic traditions, the high numbers of projectile points (Stanyard and Baker 1993; Elliott and Wynn 1991), and the possible appearance of defensive structures (Caldwell 1957; Stanyard and Baker 1993) signal a change in the nature of regional interaction during this interval. Given the intrusion of the more cullturally "Mississippian" Macon Plateau culture in the region at ca. 900 A.D., the foundation of alliances for defensive purposes, rather than or in addition to the need to manage environmental risk, would seem to be a reasonable explanation for the increased separation of distinct, localized Late Woodland and Emergent Mississippian ceramic traditions.

Whatever the reason, significant changes take place in the settlement of the project area during this period. In addition to an increase in the number of sites, Woodstock components in Jackson and Madison Counties are divided between several residential sites in the uplands adjacent to large streams, and more frequent, smaller sites in the floodplains or terraces closer to these streams. This pattern contrasts sharply with both the earlier Cartersville and later Etowah/Savannah occupations. Unfortunately, the data needed to interpret this change is lacking, but it seems reasonable to suggest that the choice of more elevated landforms reflects a concern for defense (Caldwell 1957) or, perhaps, an ecological adjustment, such as a shift to swidden cultivation. However, further work will be required to understand the nature of both regional socio-political interaction and subsistence during this period.

The Early and Middle Mississippian Periods

Survey data indicates a decline in the utilization of Jackson and Madison Counties during the Etowah and Savannah periods. The few, scattered components from these time periods are low in artifact density, and may represent only seasonal or intermittent occupation. Only 9JK54, on a terrace above the North Oconee River, appears to have been reoccupied or inhabited for any considerable period of time.

Although it would mark a dramatic shift from the preceeding Emergent Mississippian period, it seems most likely that Etowah/Savannah period sites in the project area reflect occasional use of the area by people based more permanently elsewhere, perhaps on the Middle Oconee. Chiefdoms developed in the Oconee Valley at this time, with mound construction taking place at the nearby Scull Shoals site (Williams 1984). In addition, Savannah period sites are common in portions of northern Oconee County not far from the project area (Ledbetter and O'Steen 1986).

Sometime during the Early Lamar period, the gradual abandonment of the project area appears to have become complete. Although there are a few indications of settlement at this time, the evidence is equivocal and unsubstantial. The area may have continued to be used for foraging, which might not have left much evidence.

The gradual decline in the occupation of the two counties is clearly linked to broader regional developments in northern Georgia during the Early and Middle Mississippian periods. As chiefdoms developed in the areas surrounding Jackson and Madison Counties during these periods (Figure 43), habitation in the project area steadily decreased. Although the administrative centers of these chiefdoms shifted

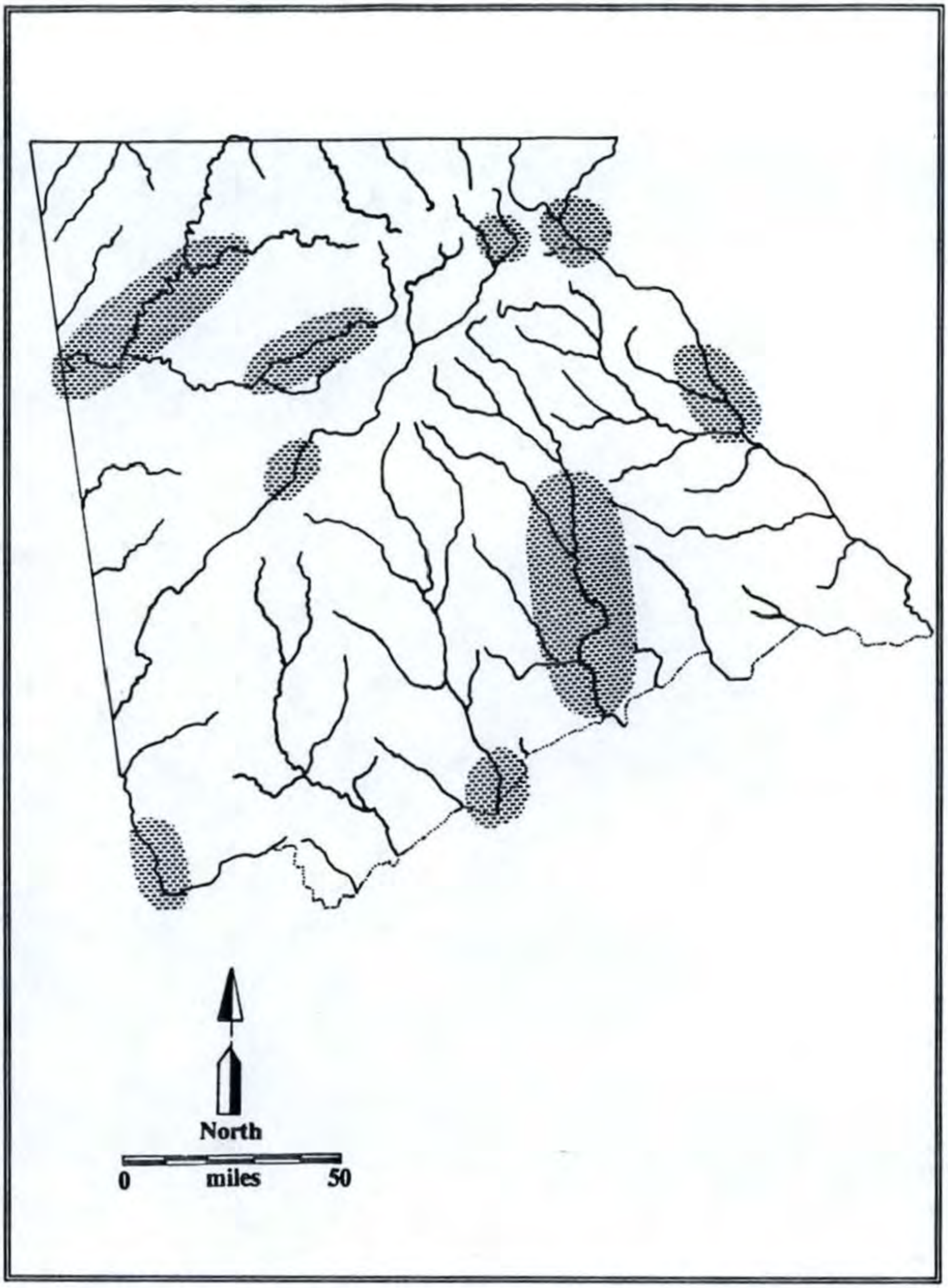


Figure 43. Areas of mound construction in northern Georgia during the Etowah/Savannah and Early and Middle Lamar periods.

back and forth between mound sites within these regions (Hally 1986, 1992, 1993), mounds were apparently never constructed on the upper Oconee or Broad Rivers, chiefdoms never emerged, and, in fact, the area was eventually reduced to a no-man's-land between polities.

Why did a chiefdom never develop in the area? Hally's (1993) recent analysis of the spatial distribution of Mississippian mound sites in northern Georgia suggests that the administrative centers of socially and politically distinct chiefdoms were typically separated by more than 32 kilometers, and on average by at least 45 kilometers. Measuring from a central point along the North Oconee River in Jackson County with relatively large amounts of floodplain, one finds that the distance to the nearest mound sites occupied during this interval ranges from 40 to 80 km (Figure 44). If we accept the applicability of Hally's general model of Mississippian mound distribution to a more temporally and spatially restricted situation, a mound center could have developed in Jackson County and still allowed for sufficient separation between the competing polities in the region. The fact that such a mound center never developed suggests that some variable or combination of variables, perhaps the reduced amounts of floodplain in the region or even a particularly fierce political rivalry between neighboring chiefdoms, prevented the development of a chiefdom in the area. Although the amount of floodplain in portions of Jackson and Madison Counties is comparable to that of some nearby Mississippian mound sites (e.g., 9EB85, 9MG46, 9HK1), the fact that chiefdoms never developed in the headwaters of the Ocmulgee or Flint Rivers to the west of the project area would seem to suggest that physiographic features, such as smaller rivers and less alluvial soils, may have been an important factor in the lack of mound construction and lighter settlement in the region.

As paramount chiefdoms eventually developed in the major drainages of northern Georgia, Jackson and Madison Counties probably became part of a buffer

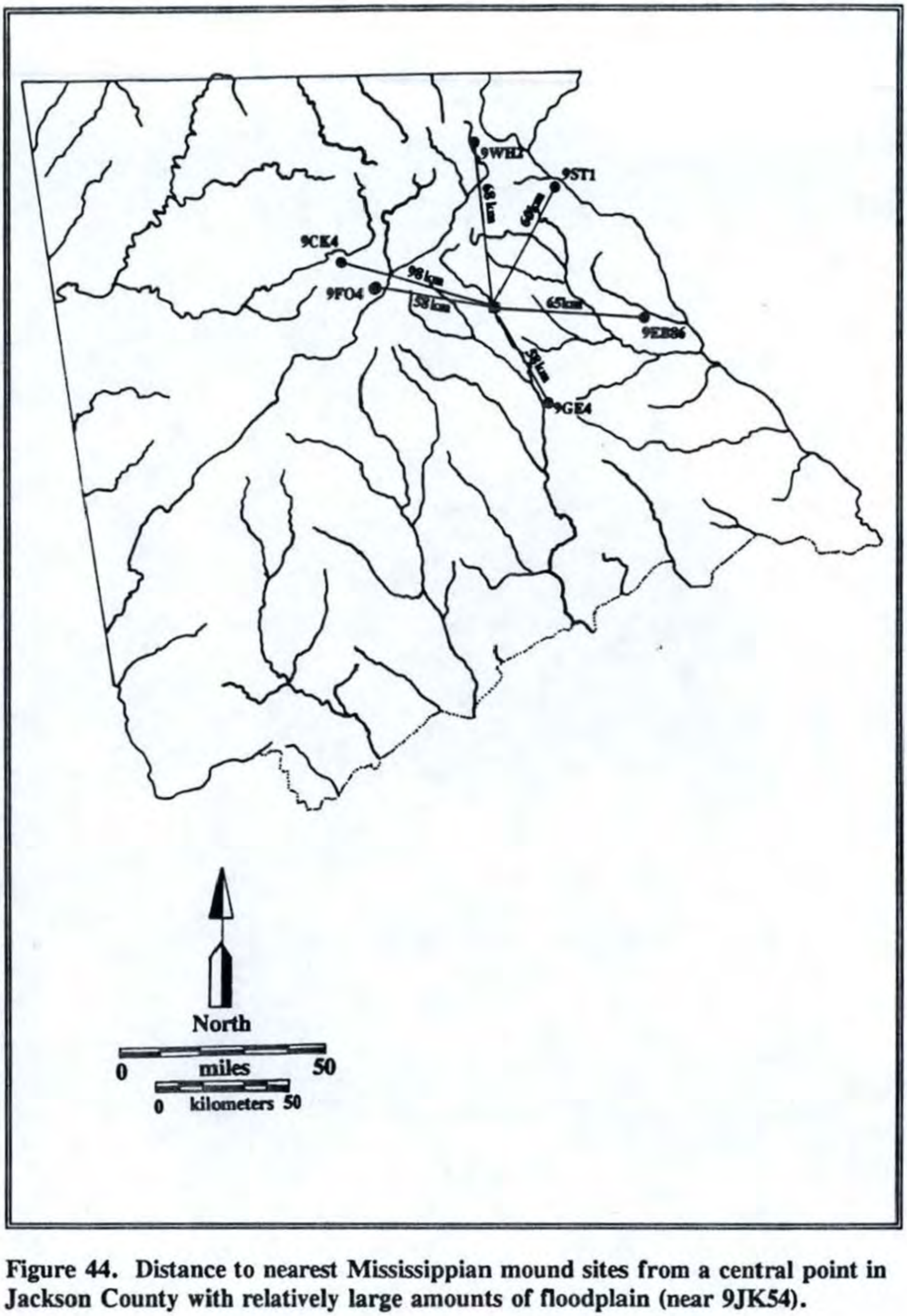


Figure 44. Distance to nearest Mississippian mound sites from a central point in Jackson County with relatively large amounts of floodplain (near 9JK54).

zone between a polity on the upper Chattahoochee and one on the middle and lower Oconee Rivers. Although there is no ethnographic evidence for a buffer zone in this area *per se*, ethnographic accounts of the de Soto expedition of 1540 clearly indicate the existence of large uninhabited "deserts" between the chiefdoms of northern Georgia (Anderson 1990; DePratter 1983; Pluckhan 1992).

Moreover, cross-cultural ethnographic and archaeological data indicate that the development of buffer zones is a common accompaniment to the evolution of chiefdoms (see Figure 42) (Bonzani 1992; Pluckhahn 1992). There are probably both ecological and social reasons for this. Anderson (1990) has suggested that buffer zones may have served as "prey reservoirs" for Mississippian chiefdoms which still relied on hunting/gathering as a supplement to agriculture. Perhaps more importantly, however, buffer zones would have reduced warfare to the more manageable level of small-scale skirmishes, thereby allowing the people of both polities to continue everyday life without the constant fear of imminent attack (Pluckhan 1992). Moreover, as Bonzani (1992) has proposed, by minimizing economic and information flow between polities, buffer zones would reduce the economic and political autonomy of households. This, in turn, would augment the political power of the elite, and contribute to the developing stratification of Mississippian society.

Figure 45. Variations in Settlement Pattern and Range/Boundary Characteristics With Changes in Sociopolitical Complexity (After Bonzani 1993).

Sociopolitical Complexity	*Settlement Pattern**	*Range/Boundary Characteristics*
Egalitarian	dispersed	fluid
Chiefdom (stratified)	nucleated	discrete (buffer zone present)
State (within borders)	dispersed	discrete (single large center)

*at the regional scale

The fact that one very large buffer zone (on the order of 150 kilometers) is known to have existed between chiefdoms in drainages on either side of the Savannah River (DePratter 1983), would seem to substantiate the claim that these areas may serve as more than simple resource reservoirs or boundaries (given the relatively rich environment and abundance of natural boundary divisions). In addition, the lack of an appreciable number of Mississippian projectile points in Jackson and Madison Counties suggests that the area was infrequently used for hunting, although lithics are rare on Lamar sites in the Oconee Valley (Williams 1990).

In any case, the lack of settlement in the project area during the Early and Middle Lamar period provides an interesting contrast with heavily settled areas to the south and north. At the time of De Soto's march through the area, and probably for some time before that, chiefdoms of northern Georgia were separated by uninhabited wilderness. Although settlements may have been dispersed locally within these chiefdoms, across the region as a whole polities were nucleated, with buffer zones serving as relatively clear boundaries.

The Late Mississippian Period

Although it contradicts much of what we know of Native American-European encounters in general, Jackson and Madison Counties and the upper Oconee Valley at large witnessed a dramatic increase in population after about A.D. 1550 (Freer 1989, Kowalewski and Hatch 1991; Ledbetter and Braley 1990; Ledbetter and O'Steen 1986). Late Lamar sites are by far the most common of all Mississippian components in the project area. Similar, although not quite as dramatic population increases have been documented in northern Oconee, Clarke, and Oglethorpe Counties (Freer 1989; Kowalewski and Hatch 1991; Ledbetter and O'Steen 1986).

Some of the questions that arise from this post-contact increase in sites are readily apparent. As Ledbetter and O'Steen (1986) have asked, do these sites

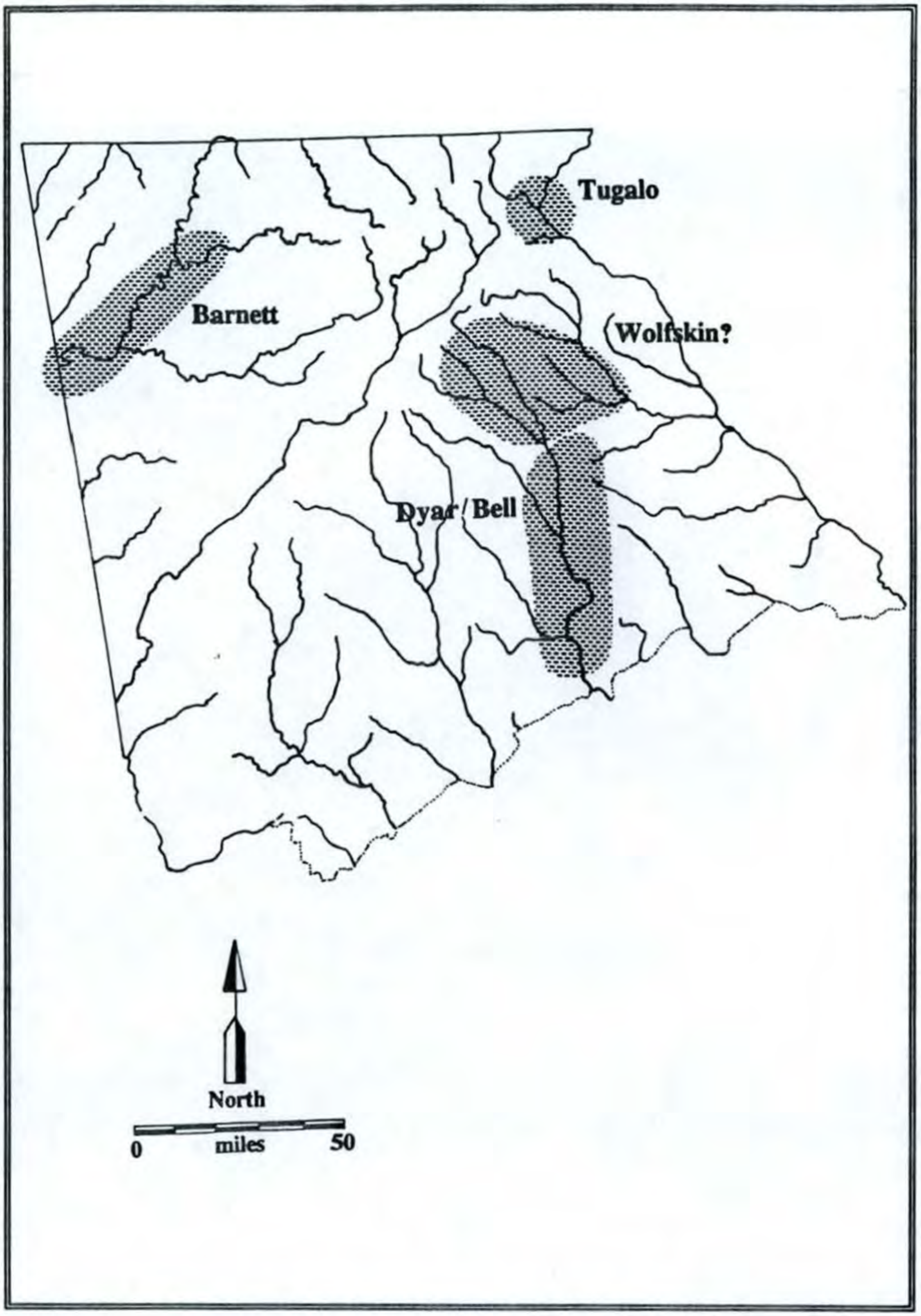


Figure 43. The distribution of Late Lamar phases in northern Georgia at ca. 1580.

"represent an expansion of province boundaries caused by population pressures or ...dispersal resulting from political instability following initial Spanish contact?" In a thorough analysis of Late Lamar demographic growth in the upper Oconee south of the project area, Kowalewski and Hatch (1991) favor the former explanation. While not discounting the possible role of immigration, they assert that "growth by internal,natural increase would have been possible and...would be consistent with the archaeological data at hand." Kowalewski and Hatch's discussion, however, focuses on an area south of the project area that was at least peripherally tied to the Oconee province, and which was occasionally settled during the Early and Middle portions of the Lamar period. Jackson and Madison Counties, in contrast, were outside of the Oconee province, and were apparently unoccupied for the two hundred years prior to the Late Lamar, upper Oconee expansion. It is, therefore, difficult to argue that internal growth would be consistent with the data on hand for the headwaters region. Moreover, although the Wolfskin ceramic complex remains rather vaguely defined and inadequately dated, it is clearly different from Dyar and Bell phase assemblages from lower in the Oconee Valley. The fact that these ceramics appear in the headwaters region without antecedents supports the possibility that it is intrusive. If our chronologies are correct, Late Lamar settlements in the upper Oconee may indeed reflect a migration into the area sometime after the De Soto expedition.

Perhaps, as population increased in the lower Oconee Valley, people from the former Oconee province migrated into what had been for several centuries an uninhabited wilderness. Although the "de-evolution" of chiefdoms is poorly understood, it would not be surprising if the process included significant changes in settlement. In particular, we might expect the characteristic Mississippian settlement system to be replaced initially by a less centralized pattern consisting of locally and regionally dispersed settlements. If the social and political controls that held Mississippian society together began to break down following Spanish contact, households and clans that had been previously held together by a rigid but inherently unstable social order may have begun to splinter. This might explain the small and dispersed Wolfskin settlements that appear in Jackson and Madison Counties and throughout much of the upper Oconee.

Although there could have been an expansion into the area from the Oconee province, there are also indications of movement into the area by people from a chiefdom on the upper Savannah, or at least of contact or exchange between the two areas. These possibilities are supported by the high percentage of Lamar Complicated Stamped sherds, occasional check stamped ceramics, and sherds with a "blue-white paste" in Late Lamar assemblages from the upper Oconee (Ledbetter and O'Steen 1986; Jerald Ledbetter, personal communication, 1993). All of these are characteristic of Tugalo and Estatoe phase ceramics from the upper Savannah (Hally 1990; Hally, personal communication 1993), but are without parallel in Dyar and Bell phase assemblages from the Oconee Valley. Interestingly, Hally's (1990) upper Savannah chronology has a 50 year gap between the Tugalo and Estatoe phases, and this interim period (1600-1650) corresponds with assumed temporal placement of Wolfskin and the expansion of settlement in the upper Oconee. A further connection between the two areas is supplied by two early eighteenth century maps which show a trail running south from Tugalo through Jackson and Madison Counties (Cummins 1958: Plates 45 and 49).

A second and related possibility, therefore, is that the rigid boundaries that separated chiefdoms during the Early and Middle Lamar periods began to break down following Spanish exploration and the establishement of the mission system. The line between the chiefdoms of the Oconee and the upper Savannah may have become hazier, as people from one or both polities moved into the buffer zone that had previously served as a separation between the competing chiefdoms. It is quite possible that as the upper Savannah chiefdom collapsed, refugees from the former polity settled on the periphery of the Oconee province. Worth (1993) has recently suggested that the Oconee Valley served as an aggregation point for populations on the move in the seventeenth century.

Both of these possibilities should be placed in historical context. During the seventeenth century, Spanish missions in Florida and coastal Georgia commonly attracted displaced Native Americans. Refugees from the upper Savannah might have migrated south into Jackson and Madison Counties en route to these missions (Mark Williams, personal communication 1993). The eighteenth century Nairne and Mitchell maps, which identify the trail through Jackson and Madison Counties as the route from Tugalo to the Apalachee area (Cummins 1958: Plate 45, Plate 59), lend support to this hypothesis. The fact that many of these sites appear to represent small homesteads, however, would seem to suggest that they are a product of more than simply ephemeral movement through the area. Emissaries from the Florida missions visited the Oconee Valley province of Ocute/Tama a number of times in the early and middle 1600s (Smith 1992; Worth 1993). A more likely explanation could be that this contact alone served as a magnet for Native Americans on the northern Georgia frontier who wanted access to European trade goods.

Another historical development should also be kept in mind. By the second half of the seventeenth century, trade in Indian slaves and deerskins had turned northern Georgia into a chaotic and deadly frontier, both between white settlers and Native Americans and between Native Americans themselves. There is considerable evidence that the region had become turbulent even before this, however (Smith 1992; Worth 1993). The relatively structured warfare of earlier Mississippian times was replaced, after Spanish contact, by widespread and unpredictable raiding. The small, scattered Late Lamar settlements in the upper Oconee and Broad River Valleys could represent refugees from an increasingly dangerous frontier. For perhaps the first time in history, the distance of the project area from some of the major routes of travel and trade may have made it a preferred location for settlement.

Conclusions

Fernand Braudel (1980) once likened historical models to ships, and suggested that we must sail these ships up and down through time until they are no longer adequate, in allegorical terms until they "sink." Our model of Mississippian settlement (i.e., villages and farmsteads within spatially discrete chiefdoms, as per Smith 1986, DePratter 1983, Anderson 1990, Hally 1993) clearly begins taking on water within a few centuries in either direction from the center of the period. At what could be argued was the height of Mississippian culture, during most of the Lamar period, people in the Georgia Piedmont were settled in spatially distinct clusters, which were separated by large expanses of uninhabited wilderness. But on the temporal boundaries of the Mississippian, both early and late, there were dispersed farmsteads across much of northern Georgia (Mark Williams, personal communication 1993). These phases may owe more to the preceeding Woodland and succeeding historic periods, but as "bookends" on the Mississippian they provide the contrast that defines our model for this, the concluding chapter of prehistory.

CHAPTER 11

THE HISTORIC PERIOD

Results

Historic period components identified by my survey and on the North Oconee Reservoir Project are listed in Table 10, with their locations indicated in Figure 47. I identified 24 historic sites, the vast majority of which date to the late nineteenth and/or early twentieth centuries. Only ten historic components were identified on the North Oconee Reservoir Project, but a greater percentage of these date to the earlier half of the nineteenth century. Most of the sites recorded on both surveys are tentatively identified as house sites, but a number of others can be positively identified as mills or cemeteries. One possible eighteenth century Native American component was identified on 9JK54, based on the recovery of a sherd resembling the type Chattahoochee Brushed (Ledbetter and Braley 1990).

Discussion

The Eighteenth Century

The period of historic Native American and initial European American settlement in the Georgia Piedmont is largely undocumented both historically and archaeologically. Second-hand historical accounts of the period tend to be long on legend but short on facts. Wilson's (1914) *Early History of Jackson County, Georgia*,

Table 10. Historic Period Components in the Project Area Identified on This Survey (*) and on The North Oconee Project (**) (Ledbetter and Braley 1990).

Site #	Component	Topography	Stream Rank
*9JK91	mid to late 19th/ early 20th century house site	ridge top	1
*9JK92	mid to late 19th/ early 20th century house site	ridge top	1
*9JK99	mid to late 19th/ early 20th century house site	ridge top	1
*9JK106	mid to late 19th/ early 20th century house site	ridge top	1
*9JK107	mid to late 19th/ early 20th century house site	ridge top	1
*9JK111	mid to late 19th/ early 20th century house site	ridge top knoll	1
*9JK115	early to middle 19th century mill?	ridge nose	2
*9JK130	mid to late 19th/ early 20th century house site	ridge top	1
*9JK135	mid to late 19th/ early 20th century house site	ridge top saddle	1
*9JK136	mid to late 19th/ early 20th century house site	ridge top	1
*9JK137	mid to late 19th/ early 20th century house site	terrace	2
*9JK140	mid to late 19th/ early 20th century house site	ridge nose	1
*9BA78	mid to late 19th/ early 20th century house site	ridge nose	1
*9BA79	mid to late 19th/ early 20th century house site	ridge top saddle	1
*9BA80	mid to late 19th/ early 20th century house site	ridge top knoll	1
*9MD62	mid to late 19th/ early 20th century house site	ridge top knoll	3
*9MD63	19th century cemetery	ridge nose	3
*9MD65	mid to late 19th/ early 20th century house site	ridge nose	3
*9MD67	mid to late 19th/ early 20th century house site	ridge nose	1
*9MD68	mid to late 19th/ early 20th century house site	ridge top	1

Site #	Component	Topography	Stream Rank
*9MD84	mid to late 19th/ early 20th century house site	ridge top	1
*9MD85	mid to late 19th/ early 20th century house site	ridge top	1
*9MD86	mid to late 19th/ early 20th century house site	bench	3
**9JK54	possible 18th century Native American house site	terrace	3
**9JK57	mid to late 19th/ early 20th century house site	ridge slope	3
**9JK60	mid to late 19th/ early 20th century cemetery	ridge top knoll	2
**9JK64	early to middle 19th century mill	ridge slope	3
**9JK65	mid to late 19th/ early 20th century house site	ridge nose	3
**9JK66	mid to late 19th/ early 20th century house site	ridge nose	3
**9JK69	early to middle 19th century mill	ridge slope	3
**9JK78	early 20th century house site	ridge nose	2
**9JK83	mid to late 19th/early 20th century mill	ridge slope	2
**9JK84	early to middle 19th century mill	ridge slope	2

for example, is filled with romantic epics of beautiful Indian princesses, and imaginative tales of mysterious creatures (such as the infamous "Wog" which was said to torment early European American settlers), but provides very little real data.

If we can cast aside the obvious fictions, however, there may be some grain of truth in these early county histories. For example, accounts from both Jackson and Madison Counties indicate that the area was sparsely inhabited by Native Americans at the time of European American migration in the late eighteenth century, and suggest that the two counties served as a separation between the Cherokee to the north and the Creek to the south (Elrod 1967; Tabor 1974:8-9; Wilson 1914). Only a single eighteenth century Native American archaeological component (on 9JK54) has

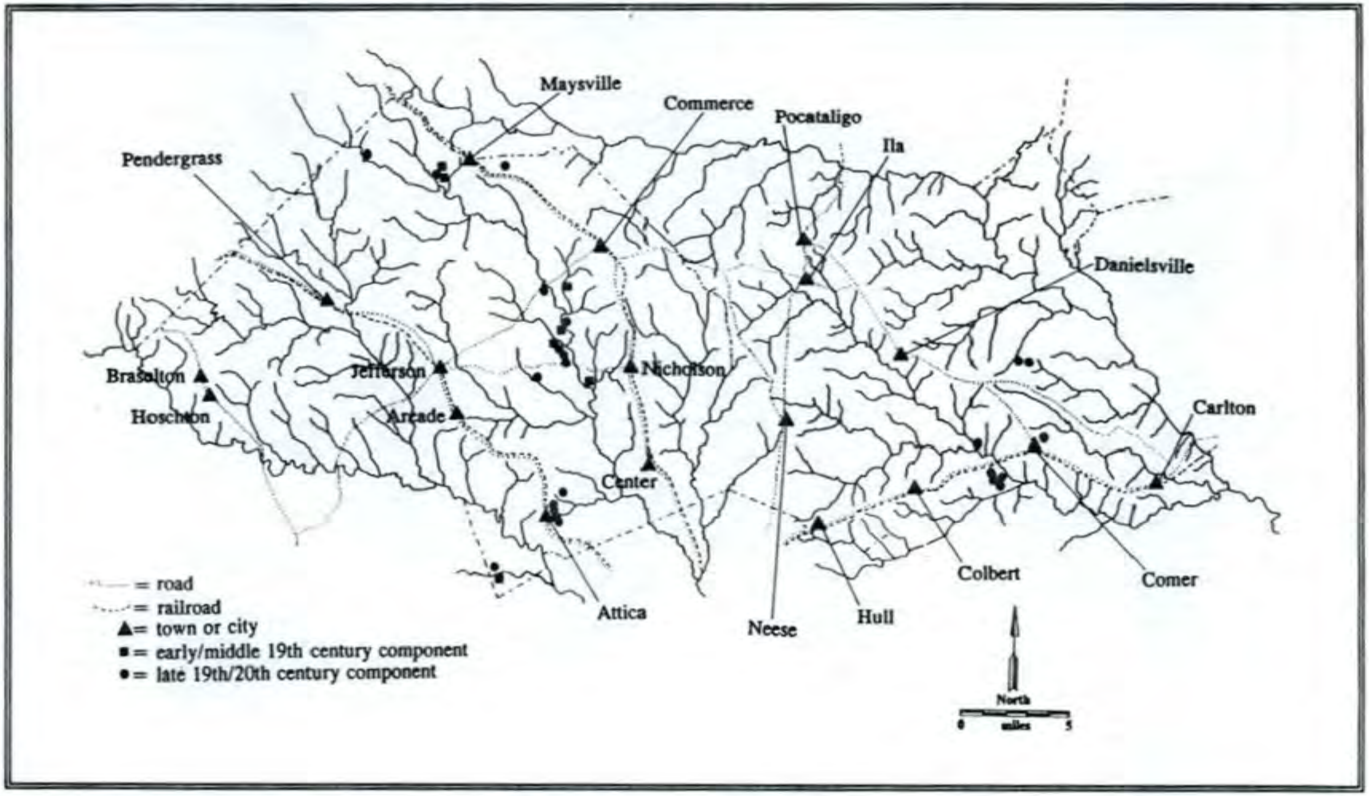


Figure 47. Historic period components identified on this survey and on the North Oconee Project (Ledbetter and Braley 1990).

been identified in the project area to date (Ledbetter and Braley 1990). The lack of additional sites may indeed be an indication that the project area was only infrequently used as a hunting ground by both Creeks and Cherokees. The Mitchell map of 1755 bears the legend "Deserted Cherakee Settlements" across an area that includes present day Jackson and Madison Counties (Cummins 1958:Plate 59). Given the lack of settlement during this period, the landscape of Jackson and Madison Counties was probably predominantly mature, mixed hardwood and pine forest. In the eighteenth century, naturalist William Bartram described an area just east of Madison County as "open forest, generally Pine, mixt with Red and Black oak and Hicory" (Bartram 1958).

Soon after the American Revolution, Colonel Elijah Clarke led a military campaign up the Oconee into lands claimed by the Cherokee Nation. Farris Cadle (1991:75) writes that, as a result of this expedition, "the chiefs, headmen and warriors of the Cherokee Nation were forced to sign a treaty at Augusta on May 31, 1783, ceeding a tract of land between the Tugaloo and the upper Oconee Rivers..." This tract would have included all, and half of present day Madison and Jackson Counties, respectively. However the Creeks also claimed this land, a title they would not relinquish until 1790 (Cadle 1991:75-76).

Having obtained the lands, the state of Georgia set about distributing them in 1784. Petitions for land were accepted, and in April of that year warrants were issued in a rather chaotic drawing in Augusta. Cadle (1991:77-78) writes that "the small river town on what was then Georgia's northwestern frontier had become overrun with recently discharged soldiers, expectant settlers, hopeful immigrants from other states, speculators, rough backwoodsmen, and an intermingling of Indians, all bent on grabbing up warrants for as much land as possible..."

A composite map of headright grants issued for southeastern Madison County (Cadle 1991; Robertson and Jenkins 1983) clearly indicates the preference of these early settlers for riverine lands. Upland tracts were generally not granted or settled until the late 1790s or early 1800s. On a larger and more general scale this pattern is apparent in the archaeological data from the two counties. Early nineteenth century sites are far more common in riverine environments than in upland settings, as my sample of sites from the two counties attests.

Little is known of the earliest European American inhabitants of the project area. Many were probably traders, hunters, cattle farmers, and squatters whose transient nature left little for the archaeological or historical record. Most had moved on by the time the counties were officially created (Price and Wood 1989:15; Tabor 1974:9) (Jackson County in 1796, Madison County in 1811) (Cadle 1991).

The Early and Middle Nineteenth Century

European American settlement of the project area began in earnest in the early 1800s. The first lands to be settled were the more fertile and arable bottomlands, particularly those along the larger streams which could provide power for saw and grist mills. As these lands filled up, settlers moved into the uplands (Price and Wood 1989:15). The scarcity of early nineteenth century sites on upland landforms (see Table 10) bears out this pattern.

In an interesting and significant parallel with prehistory, occupation of the project area lagged behind that of other parts of the Piedmont throughout most of the nineteenth century. Agricultural geographer Roland Harper (1922), in a series of articles documenting the development of agriculture in Georgia, grouped Jackson and Madison Counties with the upper Piedmont, and noted the differences in settlement and land use between this region and other parts of northern Georgia (Table 11). Harper's data clearly indicates that the upper Piedmont continued to be less densely settled than the lower Piedmont well into the nineteenth century. Moreover, it documents significant differences in land use between the two regions. Upper

Piedmont counties such as Jackson and Madison had half as much improved land, far fewer slaves, and smaller and less productive farms during the middle portion of the nineteenth century.

Table 11. Middle Nineteenth Century Census Data for northern Georgia (adapted from Harper 1922).

	1850			1860		
	Blue Ridge	Upper Piedmont	Lower Piedmont	Blue Ridge	Upper Piedmont	Lower Piedmont
Inhabitants/sq. mile	10.4	21.5	28.2	13.8	26.1	28.0
Percent White	97.7	80.2	41.8	96.3	78.3	38.4
Percent Slaves	2.3	19.7	57.9	3.6	21.5	61.3
Percent of Land Improved	6.1	19.1	43.8	8.8	23.2	45.1
Avg. Size of Farm (in acres)	258	272	466	296	283	515
Avg. Value of Farm	635	987	2675	1004	1600	3760
Avg. Value of Machinery on Farm	31	67	160	44	76	178
Avg. Value of Livestock/Farm	218	296	673	338	408	935
Bales of Cotton/Farm	0	2.5	18.9	0.1	3.4	22.7
Bushels of Corn/Farm	312	416	815	392	388	744

The differences in farm value and productivity were undoubtedly related to physiographic differences between the two regions. Bonner (1964:55) noted that "transportation was still a serious limitation to the agricultural development of the Upper Piedmont. Lands lying along navigable streams sold at a premium for use in growing cotton, while those in the interior were devoted largely to subsistence crops." The slow development of agriculture and settlement in Jackson and Madison Counties during the nineteenth century was largely a product of geographic impediments. The closest market for agricultural products was Athens, while the closest large market was Augusta, which required two weeks travel round trip (Tabor 1974).

There were also disparities in soil fertility between the two regions that contributed to slow development. White (1849), in his survey of the state, noted the poor quality of soils in Jackson and Madison Counties:

> ...much of the soil of this county [Jackson] is unproductive, although there are some good lands on the branches of the Oconee (White 1849:335)...The lands on the north fork of Broad River [Madison County] are very inferior. On the south fork the lands are productive, valued at about $8 per acre. The northwest part of the county is poor; the land hardly worth $1 per acre (White 1849:405).

In contrast, White noted the fertliity and productivity of soil in lower Piedmont counties just south of the project area such as Oglethorpe and Morgan.

By the 1830s, soils in many portions of the lower Piedmont had become exhausted from decades of cotton farming (Bonner 1964:62; White 1849). In addition, wood had become scarce in the region as all the available land was cleared and cultivated (Bonner 1964:62). It has been estimated that 87 percent of the Piedmont was cleared, with the remaining 13 percent in bottom lands (Savisky 1993:14). Owing to their slower development, smaller landholdings, and less intensive agriculture, upper Piedmont counties such as Jackson and Madison were probably spared this soil depletion and deforestation until slightly later in the nineteenth century.

The Late Nineteenth Century

As transportation improved during the second half of the nineteenth century, the upper Piedmont began to develop more rapidly, and it soon reached population densities equal to or greater than those of the lower Piedmont. Harper (1922:23) notes that by 1870, the Upper Piedmont had 29.9 inhabitants per square mile, slightly higher than the 28.6 people per square mile on the lower Piedmont. Although this trend continues and grows more pronounced through the remainder of the century, it may not be entirely indicative of population growth in Jackson and Madison Counties. Harper's statistics for the upper Piedmont include the metropolitan Atlanta area, which grew quickly following the Civil War. Population growth was probably less dramatic in the project area, which lacked the large cities that were beginning to attract migrants from more rural areas.

Nevertheless, Jackson and Madison Counties did continue to increase in population through the late nineteenth and early twentieth centuries. As railroads were constructed in the 1880s and 1890s, small towns began to develop in the uplands of the two counties. Many of the historic sites identified on my survey reflect this period of growth and expansion. A high percentage of the historic sites identified on my survey were within one kilometer of a railroad track.

Additional factors may have also contributed to the development of Jackson and Madison Counties during this period. The widespread use of commercial fertilizers following the Civil War made previously unproductive upland tracts more amenable to farming (Tabor 1964:46). Perhaps owing to this and other new technologies, the upper Piedmont witnessed a continuous increase in cotton yields from 1870 to 1920 (Harper 1922). Similar improvements were made in the harvest of corn, which remained an important crop on the upper Piedmont. In addition, poultry emerged as an upper Piedmont industry during the late nineteenth centry (Harper 1922).

The Twentieth Century

After a long period of growth during the late nineteenth and early twentieth century, population levels in Jackson and Madison Counties began to decline in the

1920s (Tabor 1974). Much of this decline was the result of the degeneration of the agricultural base of the two counties. Harper reports that the cost of fertilizer per improved acre of land on the upper Piedmont remained relatively steady from 1870 until 1900 (although costs for this region were higher than the averages for both the lower Piedmont and the state as a whole). Between 1900 and 1910, however, the cost doubled, and in the ten years to follow it would increase four fold. Meanwhile, cotton prices were falling due to competition from other regions and in the 1920s the boll weevil invaded the Southeast. In addition, despite the initiation of limited soil conservation measures like terracing as early as the 1870s, erosion and over-use were taking their toll on farm productivity (Tabor 1974:43-48).

Thus, the twentieth century has witnessed an economic restructuring of the project area that has had a profound effect on settlement and land use. In 1950, 73 percent of Madison County residents were classified as rural farm residents, over 50 percent of the population was employed in agricultural jobs, and 19.5 percent were employed in manufacturing jobs (Savisky 1993:16). By the 1980s, the composition of the county changed dramatically, with only 8 percent of the population classified as farm residents, less than 5 percent employed in agricultural jobs, and now over 50 percent in either manufacturing or professional and service jobs (Savisky 1993:17).

Clearly, changes in the economic structure of the project area have led to dramatic shifts in settlement. The shift toward more manufacturing has led to a higher percentage of people living in or near cities. But there have been equally dramatic changes in the composition of the landscape. The average size of landholdings in Madison County has declined from 47 hectares in the 1950s to just 7 hectares in the 1980s. As a percentage of the total land area, farmland has declined from 47 percent in the 1950s to 32 percent in the 1980s (Savisky 1993:15-16). Forested land, meanwhile, has increased from 48 percent to 57.3 percent during the same interval, as abandoned agricultural land has been planted or naturally reseeded by pines (Savisky 1993:14-17).

Conclusions

Settlement of the project area since arrival of European immigrants can be summarized as a long and gradual period of settlement through the eighteenth and nineteenth centuries, followed by population declines through most of the twentieth century, with increases coming only in the past several decades. The close relationship between the intensity of settlement and the productivity of the resource base are obvious in the study of Jackson and Madison Counties' history, and in comparison with the broader region. In particular, the differences between the upper and lower Piedmont are apparent, as they were throughout much of prehistory.

CHAPTER 12

SUMMARY AND CONCLUSIONS

Summary

Before making comparisons between periods, a review of my survey results is in order. Table 12 is a summary of the settlement trends I have identified in the previous chapters, with my interpretation of the data.

For the PaleoIndian period, the evidence is slim and conclusions are tentative, but the project area appears to have seen only transitory use by populations based elsewhere. The same may also be true of the Early Archaic, but there are at least some indications that people began to occupy the project area on a year-round basis at this time.

Site density increases dramatically with the Middle Archaic. Components from this period are small, and consist almost exclusively of small amounts of quartz lithics. This probably signals that locally based populations moved frequently, but became increasingly tied to a smaller range, or territory.

With the Late Archaic there are signs of increasing sedentism, with larger sites, a greater variety of artifacts, and increased use of riverine environments. This change may reflect increasing use of cultigens, but excavations of Late Archaic sites in the Piedmont have yet to produce substantial quantities of domesticates.

After a break during the Early Woodland, during which the project area appears to have been utilized infrequently or abandoned, the trend toward

Table 12. Summary and Interpretation of Settlement and Land Use in the Project Area by Period.

Period	Summary of Settlement and Land Use
PaleoIndian	Isolated projectile points on upland landforms. *Infrequent and probably transitory use of upland trails.*
Early Archaic	A few small sites on both upland and riverine landforms. *Seasonal utilization of the area for specialized activities.*
Middle Archaic	Numerous small, low density sites on upland landforms, only occasionally in riverine environments. *Highly mobile occupation of uplands.*
Late Archaic	Sites commonly on landforms above floodplains of larger streams and occasionally in uplands. *May signal beginning of more permanent and seasonally sedentary occupation.*
Early Woodland	Components are rare (could be compounded by problems with artifact chronologies). *Project area infrequently utilized or abandoned.*
Middle Woodland	Few, but generally large and dense components in floodplains of larger streams, numerous smaller sites in uplands. *Seasonally sedentary occupation of riverine areas with specialized use of uplands.*
Late Woodland	Few, small, low density sites near streams. *Limited utilization by people based more permanently outside the project area.*
Emergent Mississippian Woodstock	Large, high density sites on uplands edge with small, low density sites in surrounding areas. *Several large residential occupation sites on edge of uplands, with smaller, specialized sites scattered up and down stream.*

Period	Summary of Settlement and Land Use
Early Mississippian	**A few Etowah/Savannah components in riverine settings and adjacent uplands.** ***Limited riverine based occupation or seasonal utilization.***
Middle Mississippian	**Very few, low density Early/Middle Lamar components.** ***Infrequently used for specialized activities or abandoned.***
Late Mississippian (Late Lamar)	**Numerous small, medium and low density sites primarily in riverine settings, but occasionally also in uplands.** ***Re-occupation of the area through migration or expansion of settlement into riverine settings, with specialized or transitory sites in uplands.***
Early 19th Century	**A few sites on landforms just above floodplains, uplands edge.** ***Light, but permanent occupation of riverine environments.***
Late 19th/Early 20th Centuries	**Sites common in uplands, less common but present in riverine settings.** ***Relatively heavy settlement of uplands, particularly along transportation routes.***

more sedentary settlement continues with the Middle Woodland. Settlement in the project area at this time appears to consist of several large village sites in the bottomlands, with smaller sites in the uplands. During the Late Woodland, these large sites are replaced by smaller sites with lower artifact density.

During the Late Woodland/Emergent Mississippian period, settlement increases and there seems to be a greater dispersal of components along the edge of the uplands adjacent to larger streams. Woodstock ceramics and northwestern Georgia chert indicate that people living in the project area were linked socially and economically with populations to the north and west at this time.

Jackson and Madison Counties appear to have been gradually abandoned during the Early and Middle Mississippian periods. Several Etowah/Savannah components have been identified in the project area, but they appear to be relatively insubstantial. The de-population of the project area may be due to a regional trend toward settlement nucleation during this portion of the Mississippian period, a trend which apparently left Jackson and Madison Counties as part of a buffer zone between powerful rival chiefdoms.

Although ceramic chronologies for the area are in need of refinement, indications are that there very few Early or Middle, but many Late Lamar settlements in the project area. If this is true it may confirm that the project area was a buffer zone between chiefdoms on the Oconee, upper Savannah, and Chattahoochee Rivers during the former periods. The increase in settlement during the Late Lamar period, tentatively identified as Wolfskin phase, may reflect a post-contact breakdown in the rigid boundaries that had separated chiefdoms in these areas, as well as a shift toward a less centralized settlement system.

The project area was probably only very infrequently occupied during the eighteenth century by either European or Native Americans. Local histories suggest that the two counties may have been a buffer between Cherokees and Creeks, and later between Cherokees and European American settlers lower in the Oconee Valley.

As the nineteenth century progressed, the small numbers of early European American settlements, which were primarily in the bottomlands, were replaced by more numerous settlements in the uplands of the two counties. Population levels appear to have peaked with the arrival of the railroad at the end of the nineteenth century. Only very recently in the twentieth century, with the growth of Atlanta and Athens and the construction of major roads like Interstate 85 and U.S. 441, have the two counties witnessed an increase in population.

Conclusions

As I noted at the beginning of this thesis, comparison across a broad span of time presents several avenues for research that are not possible in synchronic studies. First, it allows the possibility of discerning trends that may be characteristic of settlement in the project area in general, and which therefore probably reflect long-term influences on settlement. Second, it illuminates some of the significant differences between periods. These differences, in turn, signal that shorter term processes are affecting settlement patterns.

To these two ends, I have compiled settlement data into two comparative tables. The first of these (Figure 48) displays the number of components per one hundred years for each period of prehistory. The second (Figure 49) compares the intensity of settlement during prehistoric periods for the sample of Piedmont surveys I have used throughout the text.

Long and Short Term Limitations on Settlement

Although it is not adequately represented in either of these two figures, the long-term trend that is most apparent in my study of Jackson and Madison Counties is

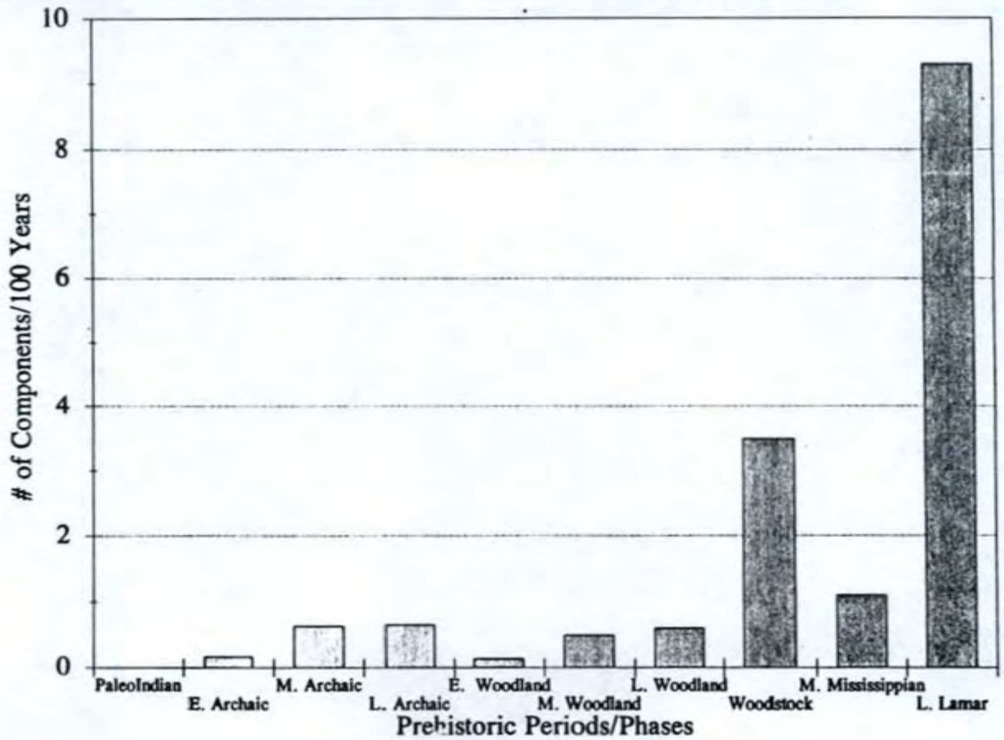


Figure 48. The number of components per one hundred years for prehistoric periods and phases (based on the sample used in this thesis).

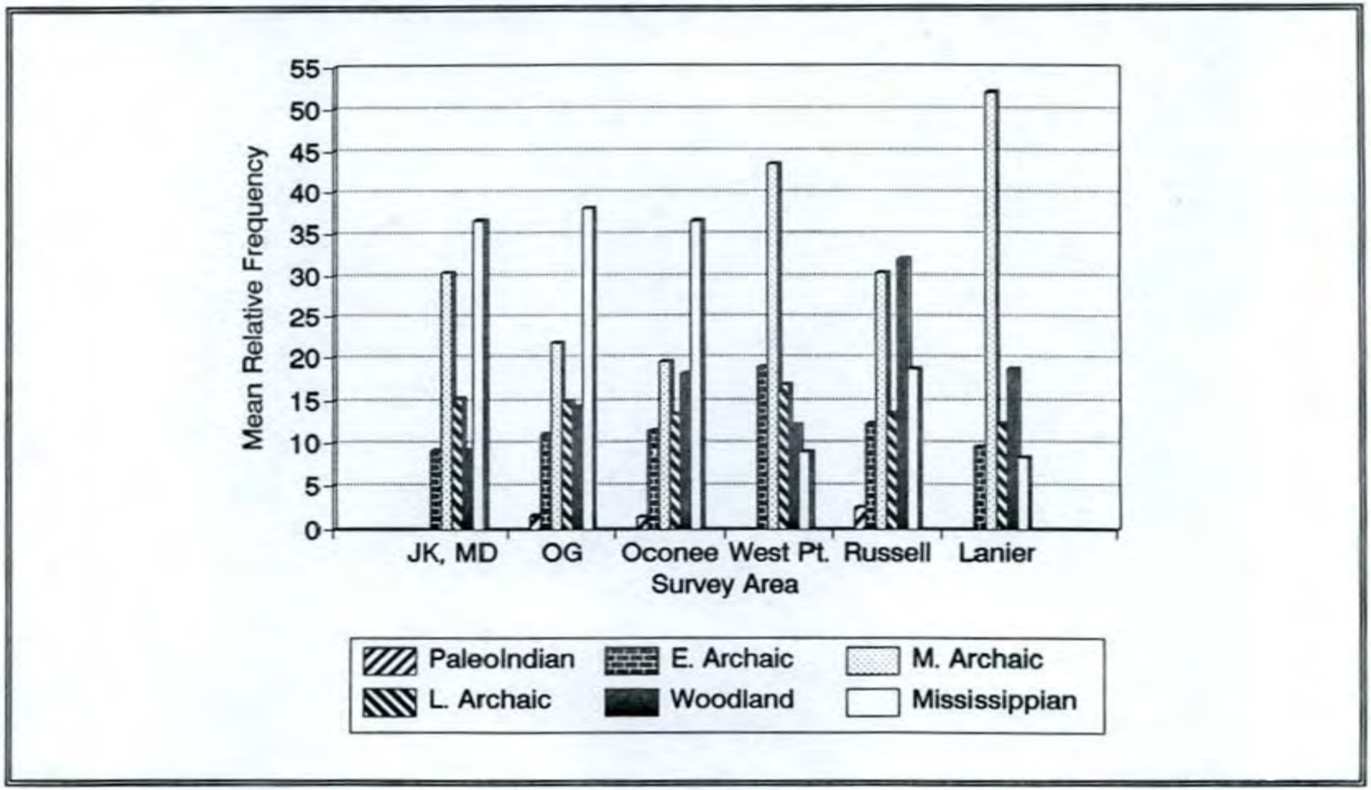


Figure 49. Mean relative frequency of components from the major prehistoric periods as identified on a sample of Piedmont surveys.

one of less intensive settlement in comparison with the lower Oconee Valley and much of the Piedmont in general. As I noted in earlier chapters, this difference is particularly acute during the PaleoIndian, Early Archaic, Early Woodland, Middle Mississippian, and pre-railroad historic periods. The fact that this tendency cross-cuts a number of time periods and cultures clearly suggests that there are long term geographic or environmental features which have discouraged demographic increase in the area. I suggest that these features include reduced amounts of riverine floodplain, smaller streams, steeper slopes, and less soil fertility than are typically found in Piedmont counties to the south of the project area (Harper 1922:9-10). While these features have not, in and of themselves, precluded greater population densities (as evidenced by more intensive settlement during some portions of history), they have probably affected choice of settlement, such that the project area has often been passed over in favor of other parts of the region that are more amenable to settlement.

However, there undoubtedly have also been long term social, political and economic constraints on settlement in the project area. Regional patterns of exchange probably began forming at a very early point in prehistory. If Jackson and Madison Counties were removed from some of the principal routes of travel and trade, as appears to be the case, then people may have historically chosen not to live in the area because they wanted, or needed, to be more closely linked to developing socio-political centers.

Moreover, during intervals of particularly low settlement in the project area, shorter term processes may have compounded these long term trends. During the early historic period, for example, the economics of cotton agriculture augmented the "marginality" of Jackson and Madison Counties, where smaller landholdings and fewer slaves, rather than large plantations, were the rule. Although the less productive nature of the soils may have also played a part, the geographic isolation from economic centers appears to have been the most important factor limiting growth and development during this period.

During the Middle Mississippian, an emphasis on corn horticulture undoubtedly made the larger floodplains of the lower Piedmont more attractive than the headwaters region. This led to population growth and the development of chiefdoms in alluvium-rich areas south of the project area. Furthermore, the rigid territorial boundary maintenance of Mississippian chiefdoms apparently precluded settlement in peripheral areas between polities.

During the Early Woodland, the project area may have been less densely occupied as part of a larger decline within the entire Oconee Valley. Finally, during the Early Archaic and PaleoIndian periods, the project area may have been neglected in favor of areas with higher quality lithics.

Exceptions to the Rule: Periodic Increases in Settlement

Despite the long term trend toward limited settlement of the project area, it is quite clear that population densities did reach levels comparable to other parts of the Piedmont at some points during the past 10,000 years. In particular, the Middle Archaic, Middle Woodland, Emergent Mississippian, Late Mississippian, and late nineteenth/early twentieth century periods have witnessed relatively high levels of settlement in the project area.

These increases may reveal shorter term processes that have occasionally mitigated the more enduring environmental constraints on settlement in the project area. During the late nineteenth century, for example, the expansion of the railroad finally brought development to areas like Jackson and Madison Counties that had previously been removed from the main arteries of transportation. In addition, the development of commercial fertilizers made the farming of upland soils more feasible. Technological developments during this period, therefore, may have at least temporarily relieved some of the environmental limitations that had previously deterred settlement.

During the Late Mississippian period there appears to have been an expansion into the project area as the Mississippian chiefdoms collapsed in the wake of Spanish contact. Social, political, and economic turmoil may have made the project area a more desirable place to live during this early "frontier" era.

During the Emergent Mississippian Woodstock period the project area was apparently part of a regional alliance that stretched across the headwaters of a number of different drainages to cover the upper Piedmont. Perhaps a proximity to developing centers of power in northwestern Georgia contributed to an increase in settlement at this time.

The shorter term processes behind the increase in settlement during the Middle Archaic are poorly understood, but appear to be related to increases in mobility. Perhaps environmental changes prompted a change in settlement during this period (Blanton and Sassaman 1989), and the uplands of Jackson and Madison Counties became more favorable places for habitiation.

Therefore, although we can generally classify settlement of the project area as light relative to other parts of the Piedmont, it would be misleading to explain this trend from an environmentally deterministic perspective. The enduring environmental features of the landscape have deterred settlement in the project area throughout much of its history, but clearly shorter term social, political, and economic processes have had a profound impact on settlement, and have at times either compounded or alleviated this long term trend.

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APPENDIX A

SITE INFORMATION

Key to Abbreviations

Landforms:

rt	= ridge top
rn	= ridge nose
tr	= terrace
rs	= ridge slope
kn	= knoll
sd	= saddle
bn	= bench

Components/Periods:

EA	= Early Archaic
MA	= Middle Archaic
LA	= Late Archaic
WD	= Woodland
MS	= Mississippian
HI	= Historic
UL	= Unidentified Lithic Scatter

Site Number	Survey Tract	Dimensions (meters)	Landform	Elevation (meters)	Component/ Period
9JK91	Attica East	75x60	rt	250	HI
9JK92	Attica East	90x45	rt	256	HI
9JK93	Attica East	70x50	rn	250	UL
9JK94	Attica East	50x30	rn	238	UL
9JK95	Attica East	150x100	tr	232	UL
9JK96	Attica East	30x30	rn	235	MA
9JK97	Attica East	10x10	rs	232	UL
9JK98	Attica East	50x30	rn	220	MA
9JK99	Attica East	30x30	rt	244	HI
9JK100	Attica East	60x90	rn	232	UL
9JK101	Attica East	200x90	rn	244	MA
9JK102	Attica East	30x30	rn	244	UL
9JK103	Attica East	20x20	rn	244	UL
9JK104	Attica East	25x25	rn	250	UL
9JK105	Attica East	120x80	tr	238	UL, HI
9JK106	Attica East	unknown	rt	256	HI
9JK107	Attica East	unknown	rt	256	HI
9JK108	Apple Valley	75x50	rn	216	UL
9JK109	Apple Valley	40x30	rn	220	UL
9JK110	Apple Valley	15x15	rs	210	UL
9JK111	Apple Valley	100x40	kn	220	UL, HI
9JK112	Apple Valley	200x40	rn	238	MA, LA
9JK113	Apple Valley	45x20	kn	229	UL
9JK114	Apple Valley	100x120	rt	232	UL
9JK115	Apple Valley	120x90	rn	213	HI
9JK116	Dry Pond	25x25	rn	244	UL
9JK117	Dry Pond	30x30	rn	256	UL
9JK118	Pendergrass	90x30	rn	238	UL
9JK119	Pendergrass	1x1	rt	265	UL
9JK120	Pendergrass	1x1	sd	262	MA
9JK121	Pendergrass	60x40	rt	262	MA
9JK122	North Jackson	90x45	rt	268	LA
9JK123	North Jackson	10x10	rn	250	EA
9JK124	North Jackson	40x30	sd	250	UL

Site Number	Survey Tract	Dimensions (meters)	Landform	Elevation (meters)	Component/ Period
9JK125	North Jackson	90x40	rn	244	UL
9JK126	North Jackson	1x1	rn	250	UL
9JK127	North Jackson	60x40	rn	262	MA, HI
9JK128	North Jackson	50x40	rn	265	UL, HI
9JK129	North Jackson	15x15	rn	262	UL
9JK130	North Jackson	50x30	rt	271	HI
9JK131	North Jackson	1x1	rt	274	UL
9JK132	Maysville	100x60	rn	247	MA
9JK133	Maysville	5x5	rt	262	MA
9JK134	Maysville	20x10	sd	256	UL, HI
9JK135	Maysville	100x30	sd	253	UL, HI
9JK136	Maysville	120x120	rt	287	HI
9JK137	Maysville	30x10	tr	232	UL, HI
9JK138	Maysville	150x60	tr	232	WD, MS
9JK139	Maysville	20x20	rn	250	UL
9JK140	Wilson Church	40x30	rn	250	HI
9JK141	*Informant*	150x100	rn	244	MS
9BA78	County Line	50x50	rn	271	HI
9BA79	County Line	40x40	rs	274	HI
9BA80	County Line	100x60	kn	280	LA, HI
9MD60	South Madison	100x75	rn	174	WD, MS
9MD61	South Madison	10x10	tr	174	UL
9MD62	South Madison	50x50	rn	189	HI
9MD63	South Madison	100x75	rn	183	HI
9MD64	South Madison	200x100	rt	195	MA, LA, MS, HI
9MD65	South Madison	100x40	rn	195	UL, HI
9MD66	South Madison	40x30	tr	177	UL
9MD67	South Madison	30x30	rn	189	HI
9MD68	Comer	100x100	rt	207	HI
9MD69	Comer	10x10	rt	207	UL
9MD70	Comer	5x5	rt	207	UL
9MD71	Comer	150x150	rt	201	UL
9MD72	Comer	175x50	rt	201	UL
9MD73	Pocataligo	90x30	rn	226	MA

Site Number	Survey Tract	Dimensions (meters)	Landform	Elevation (meters)	Component/ Period
9MD74	Pocataligo	30x20	tr	213	UL
9MD75	Pocataligo	75x75	rt	241	UL
9MD76	Pocataligo	60x60	rt	241	MA
9MD77	Pocataligo	60x60	rn	229	MS
9MD78	Pocataligo	10x10	rn	226	LA
9MD79	Pocataligo	15x15	tr	220	UL
9MD80	Scorched Earth	1x1	kn	213	UL
9MD81	Scorched Earth	1x1	rt	213	UL
9MD82	Scorched Earth	5x5	rt	216	MA
9MD83	Scorched Earth	1x1	kn	223	UL
9MD84	Scorched Earth	75x75	rt	223	HI
9MD85	Scorched Earth	60x60	rt	218	HI
9MD86	South Fork	70x20	bn	183	HI
9MD87	South Fork	10x10	rs	207	LA
9MD88	South Fork	60x60	rt	216	UL
9MD89	South Fork	1x1	rn	210	UL
9MD90	South Fork	1x1	rs	201	UL
9MD91	South Fork	1x1	rs	183	UL
9MD92	South Fork	3x3	kn	213	UL
9MD93	North Madison	15x15	sd	250	MA, LA
9MD94	North Madison	20x20	kn	250	EA
9MD95	North Madison	1x1	rt	244	MA
9MD96	North Madison	40x15	rn	238	MA
9MD97	North Madison	1x1	rn	232	UL
9MD98	North Madison	40x15	sd	250	UL
9MD99	North Madison	5x5	kn	256	UL
9MD100	North Madison	20x5	rs	238	UL
9MD101	North Madison	1x1	rn	244	UL
9MD102	North Madison	5x5	rn	244	UL
9MD103	North Madison	40x30	rn	238	UL
9MD104	North Madison	15x15	rn	244	UL
9MD105	North Madison	2x2	rt	256	MA
9MD106	*Informant*	unknown	rt	207	HI

APPENDIX B

PREHISTORIC LITHICS

Key to Abbreviations

Lithic Types:

QTZ	= Quartz
PTC	= Piedmont Chert
CPC	= Coastal Plain Chert
RVC	= Ridge and Valley Chert
MV	= Metavolcanic
GS	= Groundstone

Pluckhahn Thesis Survey, Flaked Stone Debitage from Sites in Jackson and Banks Counties

Site	Quartz				Coastal Plain Chert						Ridge/Valley Chert						Piedmont Chert						Metavolcanic			
				Core/	cortical		non-cortical			Core/	cortical		non-cortical			Core/	cortical		non-cortical			Core/				Core/
Number	<1 cm	1-3 cm	>3 cm	Shatter	<4 cm	>4 cm	<1 cm	1-3 cm	>3 cm	Shatter	<4 cm	>4 cm	<1 cm	1-3 cm	>3 cm	Shatter	<4 cm	>4 cm	<1 cm	1-3 cm	>3 cm	Shatter	<1 cm	1-3 cm	>3 cm	Shatter
9JK93		1		3																						
9JK94	1	1	1	1																						
9JK95	7	30	18	11																						
9JK96	3			1																						
9JK97	20	23	4	4																						
9JK98	3	9	7	2																						
9JK100	5	1																								
9JK101	5	28	7	1					1																	
9JK102	2	8	3	2																						
9JK103	6	3	2																							
9JK104	6	23																								
9JK105	6	18	2	1																						
9JK108	3	16	2	4																						
9JK109	1	15	3																							
9JK110	1	3																								
9JK111	2	3		1																						
9JK112	19	42	14	15																						
9JK113			2																							
9JK114	2	10	1	4																						
9JK116		3		2																						
9JK117	4	7	2	2																						
9JK118	4	10		2																						
9JK119																										
9JK120																										
9JK121	2	14		2																						
9JK122	3	1		1																						
9JK123																										
9JK124	2	1	1	1																						
9JK125	2	2	7	1																						
9JK126														1												
9JK127		8	3	1																						
9JK128		1																								
9JK129		8	1																							
9JK131		1																								
9JK132	7	21																								
9JK133		1																								
9JK134		3	1																							
9JK135																										
9JK137																										
9JK138		6	1	2																				1		
9JK139	2																									
9JK141	5	15	3	7									3	4	2											
9BA55	1	2		1																						

Pluckhahn Thesis Survey, Flaked Stone Debitage from Madison County Sites

Site	Quartz				Coastal Plain Chert						Ridge/Valley Chert						Piedmont Chert						Metavolcanic			
				Core/	cortical		non-cortical			Core/	cortical		non-cortical			Core/	cortical		non-cortical			Core/				Core/
Number	<1 cm	1-3 cm	>3 cm	Shatter	<4 cm	>4 cm	<1 cm	1-3 cm	>3 cm	Shatter	<4 cm	>4 cm	<1 cm	1-3 cm	>3 cm	Shatter	<4 cm	>4 cm	<1 cm	1-3 cm	>3 cm	Shatter	<1 cm	1-3 cm	>3 cm	Shatter
9MD60	2	23	10	2					1																	
9MD61	2	3																								
9MD64	9	28	9	3			2																			
9MD65	1	6	2	4																						
9MD66	3	4		2																						
9MD69	1	2																								
9MD70	2	4					1																			
9MD71	5	15	3	3																						
9MD72	5	15	3	1																						
9MD73	6	8	3	1																						
9MD74	2	9		1																						
9MD75	5	23		1																						
9MD76	3	7																								
9MD77		5			1			2																		
9MD78		4	3																							
9MD79		5																								
9MD80																										
9MD81																										
9MD82		2																								
9MD83																										
9MD87		1																								
9MD88		5	1																							
9MD89																										
9MD90																										
9MD91																										
9MD92			1																	2						
9MD93	2	18		1																						
9MD94		7		1																						
9MD95																										
9MD96	4	12	3	2																						
9MD97																										
9MD98	3	20	2																							
9MD99	2	3		1																						
9MD100		7	2	1																						
9MD101																										
9MD102		2	1																							
9MD103	1	12	16																							
9MD104		5																								
9MD106		1																								

[illegible] Thesis Survey, Flaked Stone Tools from Sites in Jackson and Banks Counties

Site	Formal Tools																Expedient Tools						
	PP/K's (whole or frag)					Other Bifaces					Unifaces					Total	Flake Tools					Total	Total
Number	QTZ	PTC	CPC	RVC	MV	QTZ	PTC	CPC	RVC	MV	QTZ	PTC	CPC	RVC	MV	Formal	QTZ	PTC	CPC	RVC	MV	Expedient	Tools
9JK93	1															1							1
9JK94																							0
9JK95						1										1	4					4	5
9JK96	1															1							1
9JK97						2										2	2					2	4
9JK98	3					1										4	1					1	5
9JK100																							0
9JK101	1					1										2	1					1	3
9JK102						1										1	1					1	2
9JK103						1										1	1					1	2
9JK104																	1					1	1
9JK105						2										2							2
9JK108																	2					2	2
9JK109																	2					2	2
9JK110																	2					2	2
9JK111																	1					1	1
9JK112	2					1					1					4	2					2	6
9JK113						1										1							1
9JK114																	1					1	1
9JK116																							0
9JK117						1										1							1
9JK118						1										1							1
9JK119	1															1							1
9JK120	1															1							1
9JK121	1					4										5	1					1	6
9JK122	1					1										2							2
9JK123	2															2							2
9JK124						1										1							1
9JK125																	1					1	1
9JK126																							0
9JK127	1					1										2	1					1	3
9JK128						1										1							1
9JK129																							0
9JK131	1															1							1
9JK132	1					3										4	1					1	5
9JK133	1															1							1
9JK134						1										1							1
9JK135						1										1							1
9JK137						1										1							1
9JK138																2	1					1	3
9JK139	2					1										1							1
9JK141	6			3												9							9
9BA55	1															1							1

Pluckhahn Thesis Survey, Flaked Stone Tools from Madison County Sites

Site	Formal Tools																Expedient Tools						Total
	PP/K's (whole or frag)					Other Bifaces					Unifaces					Total	Flake Tools					Total	Total
Number	QTZ	PTC	CPC	RVC	MV	QTZ	PTC	CPC	RVC	MV	QTZ	PTC	CPC	RVC	MV	Formal	QTZ	PTC	CPC	RVC	MV	Expedient	Tools
9MD60	4					4					1					9	4					4	13
9MD61																							0
9MD64	6				1	4										11	3					3	14
9MD65																	1					1	1
9MD66																							0
9MD69																	1					1	1
9MD70						1										1							1
9MD71																							0
9MD72																							0
9MD73	2					1										3							3
9MD74																							0
9MD75	1					3										4	3					3	7
9MD76	2															2							2
9MD77						1										1							1
9MD78	2															2							2
9MD79																	2					2	2
9MD80	1										1					1							1
9MD81	1															1							1
9MD82	1															1							1
9MD83						1										1							1
9MD87	1					1										2							2
9MD88																	1					1	1
9MD89	1															1							1
9MD90	1															1							1
9MD91	1															1							1
9MD92																	1					1	1
9MD93	3				1											4	1					1	5
9MD94	1															1	1					1	2
9MD95	1															1							1
9MD96	2					1										3	2					2	5
9MD97						1										1							1
9MD98																							0
9MD99																	1					1	1
9MD100						1										1							1
9MD101																		1				1	1
9MD102	1					1										2							2
9MD103																	4					4	4
9MD104																							0
9MD106	1															1							1

APPENDIX C

PREHISTORIC CERAMICS

Lamar Ceramics from Selected Sites in the Project Area.

Site #	Plain Grit Tempered	Lamar Stamped	Punctate	Lamar Incised			Rims		
				Fine (<1mm)	Medium (1-2mm)	Bold (>2mm)	Simple	Folded and Pinched (average width)	Other
9JK11	112 (49.7%)	133 (50.3%)	1	9	16	6	3	6 (20.98 mm)	1 folded pinched and incised rim
9JK24	457 (54.9%)	375 (45.1%)		5	33	20		19 (20.61 mm)	1 filleted rim
9JK25	30 (30.3%)	69 (69.7%)	1	2	4	2	1	9 (20.13 mm)	
9JK39	3	2		1					
9JK43		30 (100%)				1			
9JK46	1	3							
9JK47		3							
9JK49	1	3			1	1			
9JK50	14 (41.2%)	20 (58.8%)		2		1	1	1 (19.58 mm)	
9JK52	3	5			2				
9JK53		28 (100%)						3 (19.58 mm)	
9JK54	69 (49.6%)	70 (50.4)		2	16	7		7 (17.6 mm)	1 T-rim

Site #	Plain Grit Tempered	Lamar Stamped	Punctate	Lamar Incised			Rims		
				Fine (<1mm)	Medium (1-2mm)	Bold (>2mm)	Simple	Folded and Pinched (average width)	Other
9JK63	7 (50%)	7 (50%)							
9JK65	3	2						1	
9JK77	1	5			1				
9JK138	1					1			
9MD60	9 (64.3%)	5 (35.7%)				2			
9MD61	2	1			1			1 (16.82 mm)	

	Plain Grit Tempered	Lamar Stamped	Punctate	Lamar Incised			Rims		
				Fine (<1mm)	Medium (1-2mm)	Bold (>2mm)	Simple	Folded and Pinched (average width)	Other
Overall Total	713 (48.4%)	761 (51.6%)	2	20	74	40		47 (19.26 mm)	
North Oconee/ Jackson Co. "Cluster"	245 (38.0%)	400 (62.0%)	2	15	40	20		27 (19.6 mm)	

List of Prehistoric Ceramics by Site

9JK138	**Area A:**	
	1	Swift Creek Complcated Stamped, sand and grit tempered
	3	plain, grit tempered
	1	bold incised rim, grit tempered
	12	plain (eroded), sand and fine grit tempered
	Area B:	
	6	plain (eroded), sand and fine frit tempered
9JK141	all are tempered with sand, and occasional crushed quartz	
	62	unidentified complicated stamped (probably Woodstock, but eroded)
	14	Woodstock Complicated Stamped, Line Block motif
	37	Woodstock Complicated Stamped, Line Filled Diamond motif (both 3 and 2 line borders are present)
	2	Napier (?) Complicated Stamped
9MD60		
	2	Cartersville (?) Simple Stamped, crushed quartz tempered
	3	unidentified (eroded) complicated stamped, grit tempered
	1	Bold incised, grit tempered
	1	curvilinear complicated stamped, grit tempered
	1	rectilinear complicated stamped, grit tempered
	15	plain (eroded), grit and coarse sand tempered
9MD64		
	1	plain, grit tempered
9MD77		
	1	fine incised, grit tempered
	1	folded and pinched rim, grit tempered
	3	plain (eroded), grit tempered

APPENDIX D

PREHISTORIC ARTIFACT TOTALS

Pluckhahn Thesis Survey, Artifact Summaries and Ratios, Prehistoric Components in Jackson and Banks Counties

Site Number	Artifact Totals By Type of Material						Total Lithics	Total Ceramics
	QTZ	PTC	CPC	RVC	MV	GS		
9JK93	5						5	
9JK94	4						4	
9JK95	71						71	
9JK96	5						5	
9JK97	55						55	
9JK98	26						26	
9JK100	6						6	
9JK101	44	1					45	
9JK102	17						17	
9JK103	13						13	
9JK104	30						30	
9JK105	29						29	
9JK108	27						27	
9JK109	21						21	
9JK110	6						6	
9JK111	7						7	
9JK112	96						96	
9JK113	3						3	
9JK114	18						18	
9JK116	5						5	
9JK117	16						16	
9JK118	17						17	
9JK119	1						1	
9JK120	1						1	
9JK121	24						24	
9JK122	7						7	
9JK123	2						2	
9JK124	6						6	
9JK125	13						13	
9JK126				1			1	
9JK127	15						15	
9JK128	2						2	
9JK129	9						9	
9JK131	2						2	
9JK132	33						33	
9JK133	2						2	
9JK134	5						5	
9JK135	1						1	
9JK137	1						1	
9JK138	12					1	13	21
9JK139	3						3	
9JK141	36			12			48	112
9BA55	5						5	

Pluckhahn Thesis Survey, Artifact Summaries and Ratios, Prehistoric Components in Madison County

Site Number	Artifact Totals By Type of Material						Total Lithics	Total Ceramics
	QTZ	PTC	CPC	RVC	MV	GS		
9MD60	51		1			1	53	24
9MD61	5						5	
9MD64	62						65	
9MD65	14		2				16	
9MD66	19						19	
9MD69	4						4	
9MD70	7						8	
9MD71	26		1				27	
9MD72	24						24	
9MD73	14						21	
9MD74	12						12	1
9MD75	26						26	
9MD76	12						12	
9MD77	6		3				9	4
9MD78	9						9	
9MD79	7						7	
9MD80	1						1	
9MD81	1						1	
9MD82	3						3	
9MD83	1						1	
9MD87	3						3	
9MD88	7						7	
9MD89	1						1	
9MD90	1						1	
9MD91	1						1	
9MD92	2	1					4	
9MD93	25						26	
9MD94	10						10	
9MD95	11						1	
9MD96	26						26	
9MD97	1						1	
9MD98	25						25	
9MD99	7						7	
9MD100	11						11	
9MD101							1	
9MD102	5						5	
9MD103	33						33	
9MD104	5						5	
9MD105	2						2	

Comparison of Periods/Components Represented On Sites Identified on this Survey and on the North Oconee Project (Ledbetter and Braley 1990).

Period	Percent of Components on Rank 3 streams	*Average Artifact Density	**Average Ratio of Tools to Debris	*Average Size (hectares)
Early Archaic	67	medium	0.5:1	1.07
Middle Archaic	10	low	0.3:1	0.47
Late Archaic	23	medium	0.3:1	0.85
Woodland	100	medium	0.6:1	8.30
Mississippian	74	medium	0.3:1	6.20

* discounting 9JK54 due to its size and artifact density
** low=0-30 artifacts, medium=30-60 artifacts, high= >60 artifacts
averages include all of the artifacts on sites with components from each period

APPENDIX E

HISTORIC ARTIFACTS

9JK91:	1	decal whiteware	8	plain whiteware
	2	clear bottle glass	1	milk glass
	1	amethyst glass	1	alkaline glazed stoneware
	1	salt glazed/slip glazed stoneware	1	earthenware
9JK92:	17	plain whiteware	1	clear bottle glass
	3	amber bottle glass		
9JK99:	1	plain whiteware	1	amethyst bottle glass
	1	clear bottle glass		
9JK105:	1	alkaline glazed stoneware	1	slip glazed stoneware
	1	plain porcelain	2	blue bottle glass
	3	clear bottle glass	6	plain whiteware
	1	amber bottle glass		
9JK106	1	amethyst bottle glass	1	amber bottle glass
	1	blue-green bottle glass	1	plain porcelain
	10	plain whiteware		
9JK107:	no colection made			
9JK111:	3	plain whiteware		
9JK115:	3	plain whiteware	1	clear bottle glass
	1	amethyst bottle glass		
9JK127:	7	plain whiteware	1	alkaline glazed stoneware
9JK128:	4	slip glazed stoneware	1	salt glazed stoneware
	2	redware	10	plain whiteware
	1	decal whiteware	2	blue bottle glass
	3	blue-green bottle glass		
9JK130:	3	plain whiteware	1	decal whiteware
	1	plain porcelain		
9JK134:	1	plain porcelain	1	plain whiteware
9JK135:	2	slip glazed stoneware	1	decal whiteware
	3	plain whiteware	1	green bottle glass
	1	clear bottle glass		
9JK137:	2	plain whiteware		
9JK140:	9	plain whiteware	1	slip glazed stoneware
9BA78:	no collection made			

9BA79:	4	plain whiteware		
9BA80:	2	plain pearlware	1	hand painted pearlware
	5	plain whiteware	2	salt glazed stoneware
	1	alkaline glazed stoneware	1	porcelain
	1	amber bottle glass		
9MD62:	2	salt glazed stoneware	1	alkaline glazed stoneware
	2	plain pearlware	1	transfer printed whiteware
	1	blue earthenware	10	plain whiteware
	2	blue-green bottle glass	1	blue bottle glass
	1	amber bottle glass	1	amethyst bottle glass
9MD63:	no collection made			
9MD64:	1	salt glazed stoneware	1	plain whiteware
9MD65:	4	plain whiteware		
9MD67:	1	plain porcelain	1	plain whiteware
	1	banded whiteware		
9MD68:	4	plain whiteware	1	milk glass
	1	blue-green bottle glass		
9MD84:	2	plain whiteware	2	transfer printed whiteware
	1	milk glass	1	clear bottle glass
	1	redware		
9MD85:	7	plain whiteware	2	salt glazed stoneware
	1	porcelain		
9MD106:	no collection made			