PART II

PREHISTORIC OCCUPATIONS IN THE RICHARD B. RUSSELL MULTIPLE RESOURCE AREA

IV. PALEOINDIAN AND EARLY ARCHAIC PERIODS

INTRODUCTION

The initial human settlement of the upper Savannah River area occurred during the interval from 11,500 to 8,000 years ago, during what are called the PaleoIndian and Early Archaic periods. Artifacts and assemblages dating to this 3,500 year span were found at a number of sites during the cultural resource investigation program in the Richard B. Russell Multiple Resource Area. Early PaleoIndian Clovis points were found at three sites, while later PaleoIndian and initial Early Archaic Dalton and Palmer/Kirk diagnostics were more common, occurring in either surface or excavation context at 11 and 59 sites, respectively (Table 2, Figure 3). The low numbers of Early PaleoIndian components, when compared with the far greater number of later PaleoIndian and particularly Early Archaic components, suggests that dramatic population increase was occurring, corresponding to the initial settlement, and subsequent rapid filling, of the formerly empty but ecologically rich southern landscape.

Prior to the mid-1970's, excavations at late Pleistocene/Early Holocene sites were extremely rare in the lower southeast. The best known work in the general vicinity of the southern Appalachian area occurred at rockshelters such as Stanfield Worley and Russell Cave in Alabama (DeJarnette et al. 1962; Griffin 1974), at stratified floodplain or upland sites such as Hardaway and Doerschuk in North Carolina (Coe 1964) and Taylor and Thom's Creek in South Carolina (Michie 1969, 1971), or at underwater sites in Florida such as at Silver Springs or in the Tampa Bay area (Rayl 1974; Hoffman 1983; Goodyear et al. 1983b) (Figure 17). Since the mid-1970's there has been an explosion in our knowledge of these early periods, much of it due to CRM-mandated research. Large scale excavations have occurred at stratified sites such as Rose Island, Ice House Bottom, Bacon Farm, and other sites in eastern Tennessee (Chapman 1973, 1975, 1977, 1978); at the Harney Flats site in west-central Florida (Daniel and Wisenbaker 1987); at the Haw River and Baucom sites in piedmont North Carolina (Claggett and Cable 1982; Peck and Painter 1984); and at the G. S. Lewis East, Smith's Lake Creek, and Nipper Creek sites in South Carolina (Goodyear and Charles 1984; Hanson and Sassaman 1984; Hanson 1985; Wetmore and Goodyear 1986; Wetmore 1986). In addition to large scale excavations at early sites, more limited testing and surface collection has occurred at thousands of locations across the region as a result of CRM-funded survey work. The increased fieldwork, and the rise of strong amateur and professional interaction in many southern states, has led to a marked expansion in our knowledge of early assemblages in the region.

During investigations in the Russell Reservoir, surface assemblages dating to the PaleoIndian and Early Archaic periods were found at many sites, and large-scale excavations were conducted at two of these locations, at Gregg Shoals and

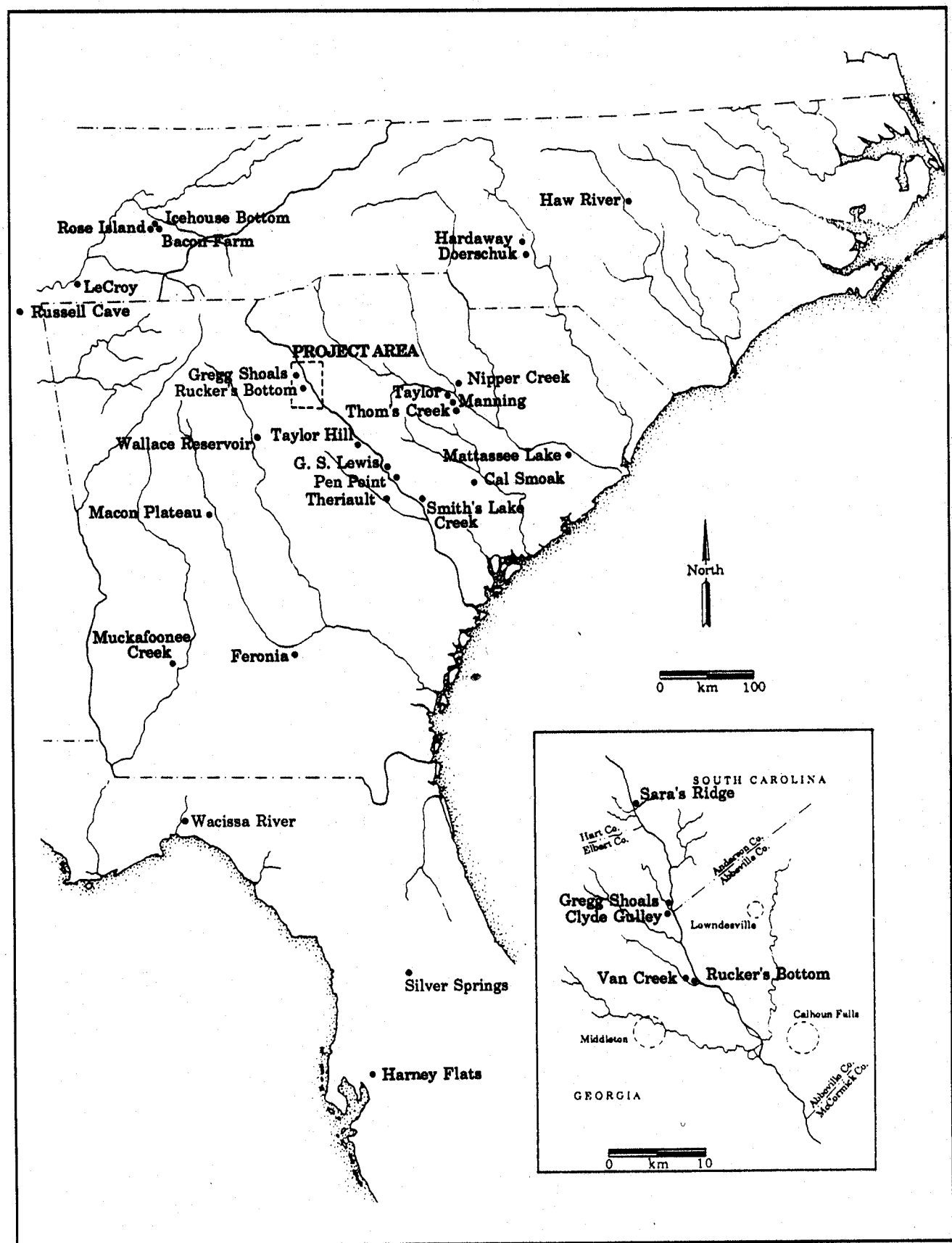


Figure 17. PaleoIndian and Early Archaic Sites, Richard B. Russell Reservoir and Vicinity.

Rucker's Bottom in Elbert County, Georgia (Tippitt and Marquardt 1984, Anderson and Schuldenrein 1985). This work has led to a better understanding of the early occupation of the area. Considerable refinement of the local sequence has occurred as a result, as well as some of the first attempts to reconstruct the kinds of activities that were occurring in these central piedmont floodplain settings.

THE PALEOINDIAN PERIOD (ca. 11,500 -10,000 B.P)

Introduction

The first unequivocal evidence for human occupation in the southeastern United States dates to around 11,500 years ago during the PaleoIndian period, when assemblages characterized by fluted lanceolate projectile points appeared widely over the region. PaleoIndian components in the Georgia and South Carolina area have been provisionally grouped into three temporal categories: early, middle, and late or transitional (Anderson et al. 1986a; O'Steen et al. 1986), although it should be noted that this inferred sequence remains to be confirmed through stratigraphic excavations and absolute dating (Meltzer 1988:15-18). The first subperiod, the Early PaleoIndian, is thought to be characterized by fluted points similar to the classic southwestern Clovis forms. The points are relatively large and thick with nearly parallel haft edges, slightly concave bases, and single or multiple flutes. There is some agreement that larger fluted Clovis-like points are earlier in the southeast than the smaller, often unfluted and more waisted forms (Gardner 1974:18; Goodyear et al. 1979:90-96; Morse and Morse 1983:60-65). The second subperiod, the Middle PaleoIndian, is characterized by smaller fluted points and fluted or unfluted points with exaggerated constrictions of the haft. Identifiable forms include the Suwanee and Simpson types. These points are presumed to be later, although again it must be stressed that absolute stratigraphic or chronometric evidence is lacking locally. These two periods, the Early and Middle PaleoIndian, are assumed to date from ca. 11,500 - 11,000 B.P. and 11,000 - 10,500 years B.P., respectively. Some temporal overlap of these forms is considered probable, and it is also possible that the Middle PaleoIndian forms continued in use after 10,500 B.P.

Dalton points, varyingly referred to as PaleoIndian, Early Archaic, or Transitional PaleoIndian (Coe 1964; Tuck 1974; Goodyear 1982) make up a Late or 'Transitional' PaleoIndian grouping, dating from ca. 10,500 to 9900 years B.P. (Goodyear 1982:390). The transitional placement for Dalton follows from arguments that these populations lived in a time of environmental change, when the boreal-like forests and late Pleistocene fauna were being replaced by modern species (e.g., Morse 1975a, Goodyear 1982). Dalton points are characterized by a lanceolate blade outline, at least in the earliest stages of tool life (Morse 1971, 1973; Goodyear 1974), and a concave base that is usually well thinned and ground on the lateral and basal margins. The Dalton point and accompanying tool kit retains many characteristics of earlier assemblages, although the presence of

serrations and evidence for resharpening to exhaustion suggest technological differences in the use of these bifaces when compared with earlier PaleoIndian points (Goodyear 1974, 1982).

In the lower South Atlantic area the Dalton horizon combines the classic piedmont Hardaway Dalton form described by Coe (1964) with lanceolate, Quad-like points (Soday 1954). The Hardaway Blade, found in the lowest levels of the Hardaway site, is the oldest projectile point type excavated to date in secure context in North Carolina (Coe 1964:64-67; Ward 1983; Oliver 1985). The point type is thought to be a regional variant of the Dalton style, which has been observed throughout much of the lower southeast, and as far west as the eastern Plains. The appearance of this point form is thought to signal a change in adaptive strategy, away from the hunting of a range of large and small Pleistocene fauna, and towards the utilization of smaller, Holocene species. Oliver (1985:199) has noted that a decrease in point size occurs over this interval, from the Hardaway Blade to the Hardaway Dalton to the subsequent Early Archaic Palmer and Kirk projectile point types.

Models of PaleoIndian Settlement

Much of our knowledge about the PaleoIndian period in the lower southeast has come from surface finds gathered by archaeologists or collectors, rather than from controlled excavations, a situation that also characterizes our knowledge in the immediate Georgia and South Carolina area (Mason 1962; Williams and Stoltman 1965; Anderson et al. 1986a,b,c; Meltzer 1988). In the quarter century or so after 1938, when the first fluted point recovered in excavation context from the Georgia/South Carolina area was found at Macon Plateau (Kelly 1938:7), only occasional reports of fluted points appeared in the literature from these and other states in the region (e.g., Caldwell 1952:Figure 167; Waddell 1965a; Wauchope 1966:99-100; Waring 1968f). In recent years, fortunately, fluted point surveys have been initiated in almost every state in the southeast, and a high level of amateur and professional interaction now centers around this kind of effort. Examples of fluted point recording projects in states in the vicinity of the Richard B. Russell Multiple Resource Area that have yielded impressive results include studies in Georgia (Anderson et al. 1986a,b,c), North Carolina (Perkinson 1971, 1973), South Carolina (Michie 1977; Charles 1986), and Virginia (McCary 1986).

As of mid-1988, over 400 fluted and non-fluted PaleoIndian Clovis, Suwannee, and Simpson lanceolate projectile points had been recorded in South Carolina and Georgia (Figure 18). Dalton points are much more common, and hundreds of specimens are known to exist from these states, although detailed records on these forms have not been maintained until quite recently. Examining the distribution of these points, it is apparent that PaleoIndian populations occupied both riverine and interriverine environments throughout the piedmont, fall line, and coastal plain, with many of the points coming from terrace settings along major drainages. Examining raw material distributions (Charles 1986:16), the data additionally suggest that local PaleoIndian groups carried or exchanged

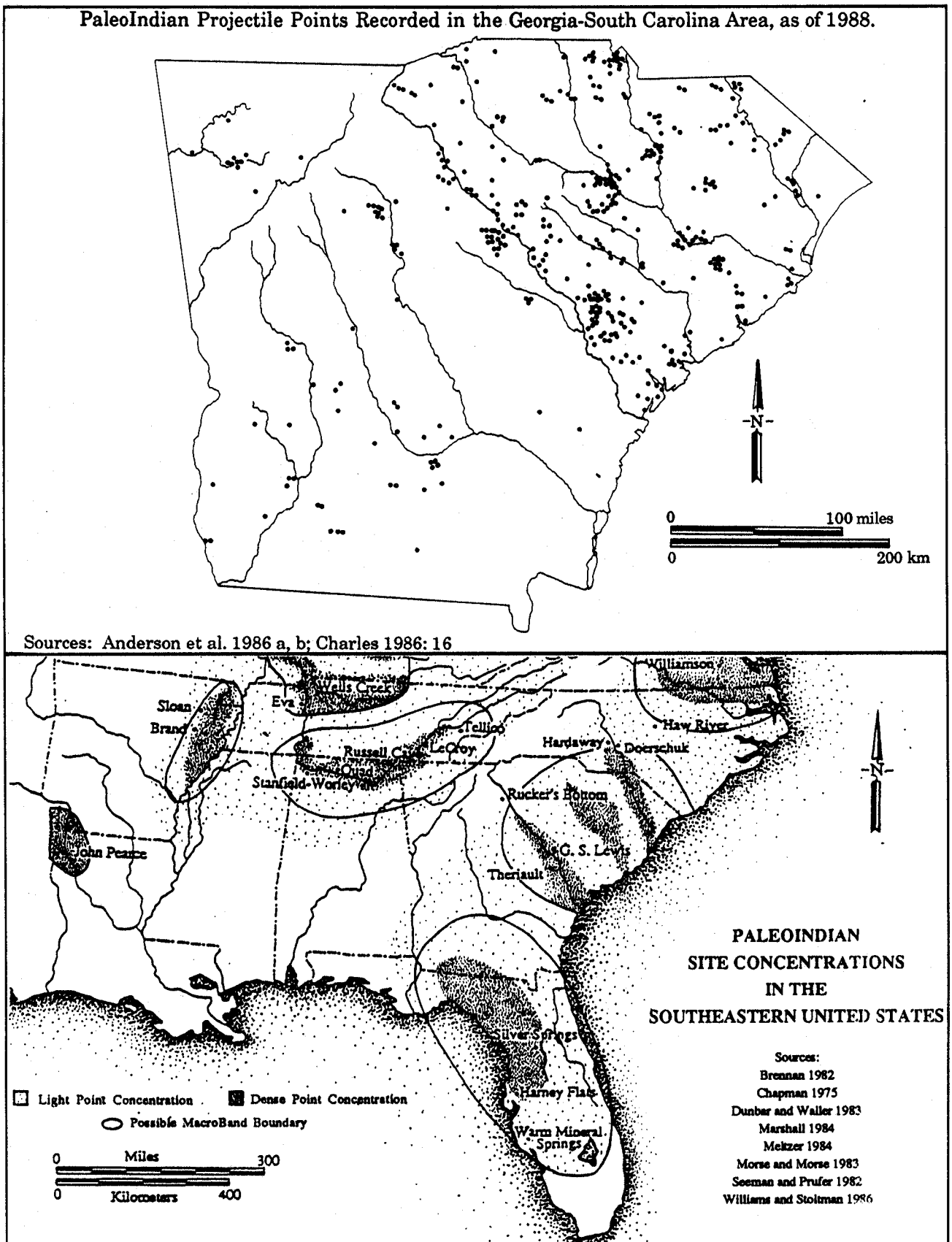


Figure 18. PaleoIndian Artifacts and Site Concentrations.

small size of the Savannah River basin, at least when compared with the Santee and Altamaha basins to either side, may have discouraged extensive settlement. The area does lie near the junction of the Atlantic and Gulf coastal regions, and studies in this region should ultimately prove important to understanding the nature of the PaleoIndian occupations in both areas.

To date PaleoIndian fluted point assemblages have only rarely been found in secure context in the Georgia and South Carolina area (Anderson et al. 1986a). While substantial numbers of PaleoIndian artifacts have been found in surface context, the excavation data recovered to date has consisted of small numbers of artifacts, with few associated diagnostic projectile points. Several isolated points have been found in fairly secure context during excavations along the Savannah River, at Rucker's Bottom (9EB91) and Simpson's Field (38AN8) in the Russell Reservoir (see below), at Taylor Hill (9RI89) on a fall line terrace near Augusta (Elliott and Doyon 1981), and at the Theriault chert quarry along Brier Creek in the central coastal plain (Brockington 1971). Like the original Macon excavations, however, where only one fluted point was found despite a massive excavation effort (Kelly 1938), most local PaleoIndian finds in excavation context have been isolated finds, found during major field programs. The single fluted point found at the Theriault chert quarry along Brier Creek, for example, came from an excavation block encompassing 142 square meters, while the isolated fluted point at Rucker's Bottom came from a 160 square meter block. While more extensive Early PaleoIndian components may exist in the general vicinity of the Savannah River, their existence remains to be demonstrated.

Virtually the only attempt to examine PaleoIndian settlement data locally has been by O'Steen and her colleagues using materials from the upper Oconee River valley in Georgia (O'Steen et al. 1986). Ninety-one PaleoIndian sites yielding 95 components were identified in the Oconee River survey sample, most predominately short term or limited activity sites, with a few quarry locations and larger possible residential sites also located. Sites were grouped by four types of landform, specifically levee, terrace, uplands edge, and uplands. A gradual expansion of occupation through time and into new areas was indicated. Early PaleoIndian sites were located primarily in the floodplain, with the remainder of the sites at the uplands edge. Middle PaleoIndian sites still occurred frequently in the floodplain, but there was also evidence for exploitation of the upland or interriverine areas. Dalton sites occurred in all zones, with a majority at the uplands edge or in the uplands. The data suggested that by Late PaleoIndian times populations were utilizing upland areas more frequently. A concentration of large sites at shoals, possible game crossing or fording areas, was evident. The use of local as opposed to extralocal raw material increased dramatically over time in the Wallace Reservoir sample. Early PaleoIndian diagnostics were predominantly on extralocal materials while most Middle and Late PaleoIndian points were made of locally available raw materials (O'Steen et al. 1986). A similar pattern was suggested in the Russell Reservoir sample (Table 2).

The available projectile point distributional data from the general region, in conjunction with the analyses from the Wallace Reservoir, suggest that the

coastal plain and ridge and valley provinces were more heavily utilized than the piedmont during the earlier PaleoIndian period, at least in the Georgia area. Piedmont Georgia PaleoIndian points tended to be small and extensively resharpened; broken points were often modified and used as scrapers, wedges, and gravers; and broken blades were often fashioned into new, but smaller, bifaces (O'Steen et al. 1986). The extensive reworking of these local assemblages suggests, possibly, that the area was on the fringes of settlement networks centered elsewhere.

Previous studies have identified areas in the southeast where large numbers of PaleoIndian points have been found that are thought to have been population concentrations (Figure 18; Williams and Stoltman 1965). The centers closest to the Russell Reservoir area are in northern Florida, the Atlantic coastal plain of South Carolina, and in the ridge and valley province of Tennessee and Alabama. The Georgia piedmont, including the upper Savannah River valley, may thus represent a relatively unoccupied area between two or more population concentrations. Raw material distributions examined on diagnostic points from across the region suggest that interaction between these areas was fairly minimal. Intensive utilization of the Georgia piedmont, including the upper Savannah River area, does not appear to occur until the latter portion of the PaleoIndian period or in the succeeding Early Archaic.

EVIDENCE FOR PALEOINDIAN OCCUPATION IN THE RUSSELL RESERVOIR

Introduction

PaleoIndian components were identified in excavation context at only three sites in the reservoir. Isolated fluted points of Early or Middle PaleoIndian age were found at Simpson's Field, Clyde Gulley, and Rucker's Bottom, while a Late PaleoIndian Hardaway Dalton point was found at Rucker's Bottom. The points from Rucker's Bottom and Simpson's Field were in late Pleistocene/early Holocene context, while the point from the Clyde Gulley site was found in later deposits. Small numbers of potentially associated tools and debitage were found with these artifacts at Sara's Ridge and Rucker's Bottom, where there was also some evidence to suggest that the assemblages were in primary context. The fluted point from Clyde Gulley occurred in a Mississippian midden, however, and in all probability reflected collection and discard by those inhabitants; the same may be indicated for the fluted point found at Rucker's Bottom, which may have been brought onto the site by subsequent, Early Archaic occupants.

Surface Finds

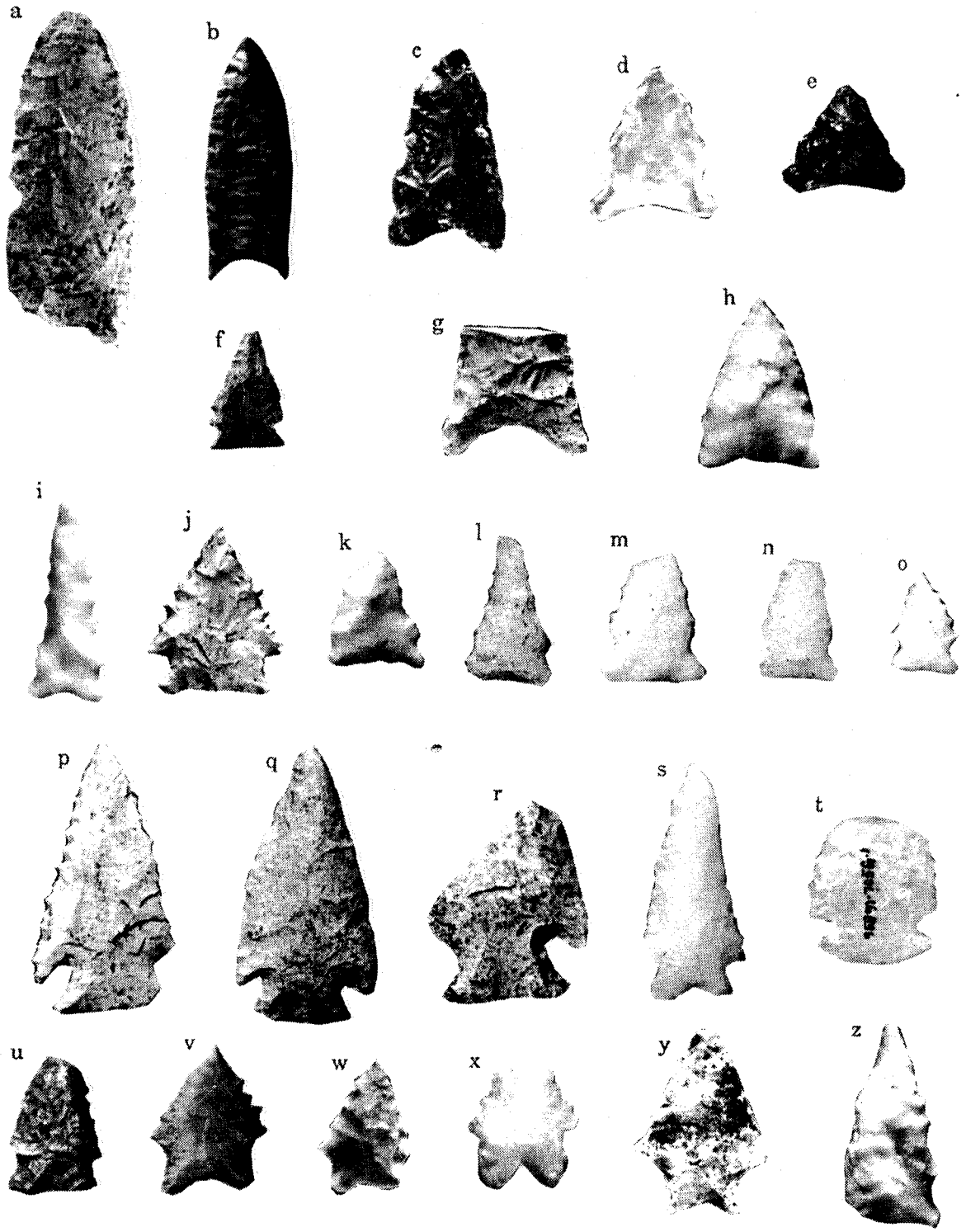
Isolated finds of PaleoIndian fluted bifaces, probably dating to before 10,500 B.P., have been found at several sites in the upper Savannah River in the general vicinity of the Russell Lake (Figure 18; Barse 1980; Charles 1986; Anderson et al.

1986a). No associated assemblages were found with these points, suggesting a fairly minimal occupation of the area. Concentrations of fluted points appear to be quite rare on sites of this time level in many areas of the lower southeast. This pattern, markedly different from that observed in the plains and in the northeast, where dense kill sites have been reported, has prompted some investigators to suggest southeastern PaleoIndian populations were highly mobile, generalized foragers "never participating in the highly structured spatial behavior that produces sites" (Meltzer 1984:354). The seemingly low incidence of PaleoIndian remains from the Georgia/South Carolina piedmont has been variously attributed to an absence of locally available high quality cryptocrystalline resources; survey bias; settlement systems favoring the resources of the coastal plain; the small size of local river basins; and, of particular relevance to the Russell area, the somewhat peripheral nature of the Savannah River drainage from major arteries extending well into the midcontinent, such as the Tennessee River Valley.

Large numbers of Dalton points have been recorded in the Georgia and South Carolina area in recent years (Anderson et al. 1986a, 1986c; Tommy Charles: personal communication 1988). The incidence is quite high, and may warrant comparison with the central Mississippi Alluvial Valley, where data on hundreds of Dalton sites exist (Redfield 1971; Morse 1971, 1973, 1975a, 1975b, 1977, n.d.; Morse and Morse 1983; Goodyear 1974, 1982). Many of the Georgia Dalton points are fluted or, more properly, basally thinned, arguing for a direct, possibly local transition from earlier fluted point assemblages. Dalton points, indicative of later Paleoindian occupation (probably from 10,500 - 9800 B.P., after Goodyear 1982), were found at a comparatively greater number of locations in the reservoir. In all, 14 points were found on 11 sites over the total Russell project survey and excavation assemblage (Table 2, Figure 3). Three Dalton points, two of metavolcanics and one of quartz, were also recovered by amateurs in surface collections from the beach in front of the Gregg Shoals site, the highest single site total observed (Tippitt and Marquardt 1984:1-4; due to provenience uncertainty these are not included in Table 2). Population growth during the PaleoIndian period is suggested by this increase in the number of diagnostic artifacts.

Rucker's Bottom (9EB91)

A single fluted point of black chert was found at Rucker's Bottom, in a 160 square meter excavation block directed to the early components (Figure 19:b; Anderson and Schuldenrein 1983a; 1985:288-308). Intensive testing at the site in 1980 had documented the presence of stratified Archaic deposits, and in 1981 a 256 square meter block had been opened from 20 to 80 cm below the plowzone to explore these remains (see also pp. 270-272). Some 80 square meters of this block were taken to a depth of from 50 to 80 cm below the base of the plowzone. Because both a Clovis point and extensive Early Archaic materials were found in these initial units, the block was expanded and another 80 square meters were examined in 1982. The excavation proceeded using 10 cm levels, with all fill waterscreened through 1/8 inch mesh. Unfortunately, no additional PaleoIndian remains were found, although an appreciable number of Early Archaic diagnostics were recovered.



a Clovis (38AN8); b Clovis (9EB91); c Clovis (9EB387); d, e, g, h Daltons (9EB259, 9EB91, 9EB260, 9EB405); f, i-o Palmers - f (38AN8), i-k (9EB387), l-u (9EB91); v-x Bifurcates (9EB91, 9EB217, 38AB149, 38AB12, 38AB32); y Stanly, z Palmer?

Sources: Taylor & Smith 1978: 245, 248, 253; Tippitt & Marquardt 1984: 8-5, 8-18; Anderson and Schuldenrein 1985: 292; Wood et al. 1986: 61

Figure 19. PaleoIndian and Early Archaic Projectile Points, Richard B. Russell Reservoir Area.

The black fluted point was found in a fairly dense cluster of Palmer points, debitage, and other stone tools (Figure 20). No unambiguously associated artifacts or features were found with this point. The presence of three Palmer points and several tools of the same black chert in the block further confuse the issue. The Clovis point may be *in situ*, with the overlap of components reflecting fairly compressed stratigraphy. Alternatively, it may have been brought onto the site by the later, Early Archaic inhabitants, or may have been relocated from a Clovis component located elsewhere on the terrace. The later assemblage may even reflect Early Archaic scavenging and reworking of materials brought onto the site during the PaleoIndian period. Three 1 x 2 m tests were opened and screened to a meter below the level of the block, but found no evidence beyond a few pieces of quartz and chert debitage for possible earlier components; these flakes were interpreted as intrusions from higher levels.

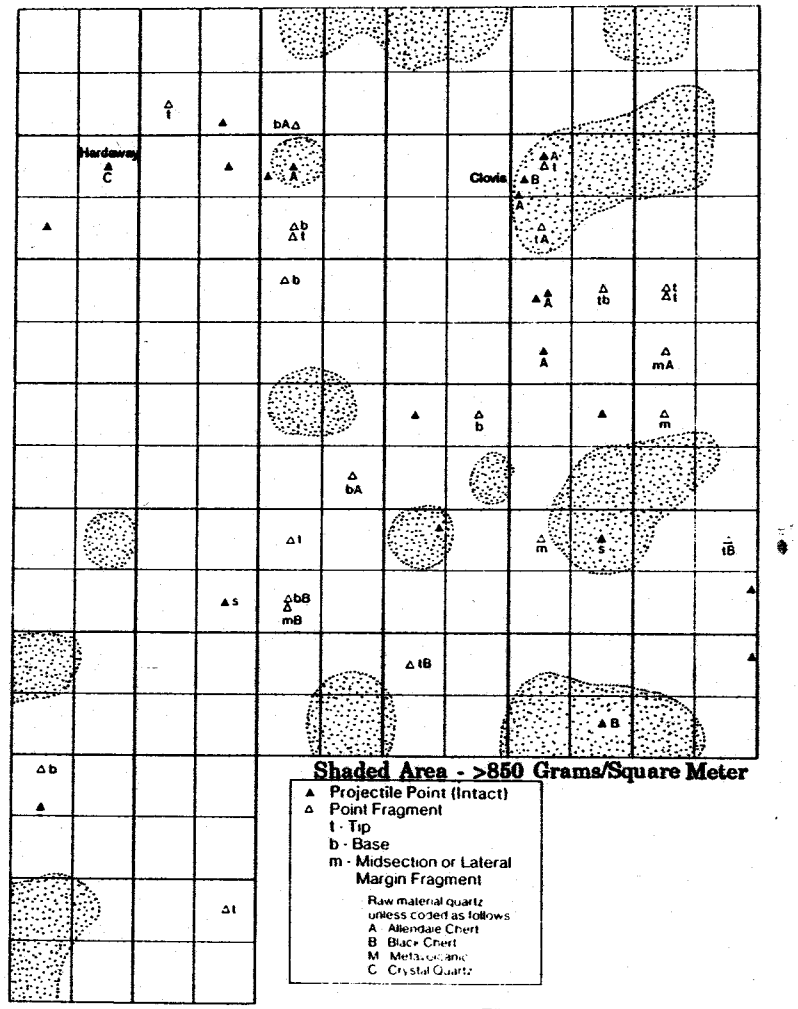
A small quantity of black chert debitage was found in the block (N=692 flakes), almost all very small retouch flakes from late stage tool manufacturing or maintenance activity. Short of refitting or source analysis studies, it is not possible to equate this material with a specific component. The material is very high quality, precisely the sort of fine-grained cryptocrystalline selected by PaleoIndian populations in the region (Goodyear 1979). The source of this material is unknown at the present, although similar materials have been found in the ridge and valley province of northwest Georgia and from an outcrop some 50 miles to the south, in the Thurmond Reservoir.

An extensively resharpened Hardaway point of clear quartz crystal was found in the 160 square meter deep excavation block at Rucker's Bottom (Figures 19:e, 20). A moderate amount of clear quartz debitage, 2,122 pieces, was also found in the block, most of it at the north end of the unit in the general vicinity of the Hardaway. Like the Clovis point from the same block, the Hardaway was found in levels dominated by Early Archaic Palmer projectile points. No Palmers made from the material were found, however, so it is possible that all of the clear quartz derives from a Hardaway component. The only other tools of clear quartz found in the block were a single formal biface and six expedient unifaces. All of these tools except for a single expedient uniface were located at the north end of the block near the Hardaway. Much of the debitage was small interior flakes, suggesting late stage tool manufacturing or maintenance activity, although a few cortical pieces with crystal facets were present. Given the moderate quantity of debitage recovered, transport of finished tool forms off the site is indicated.

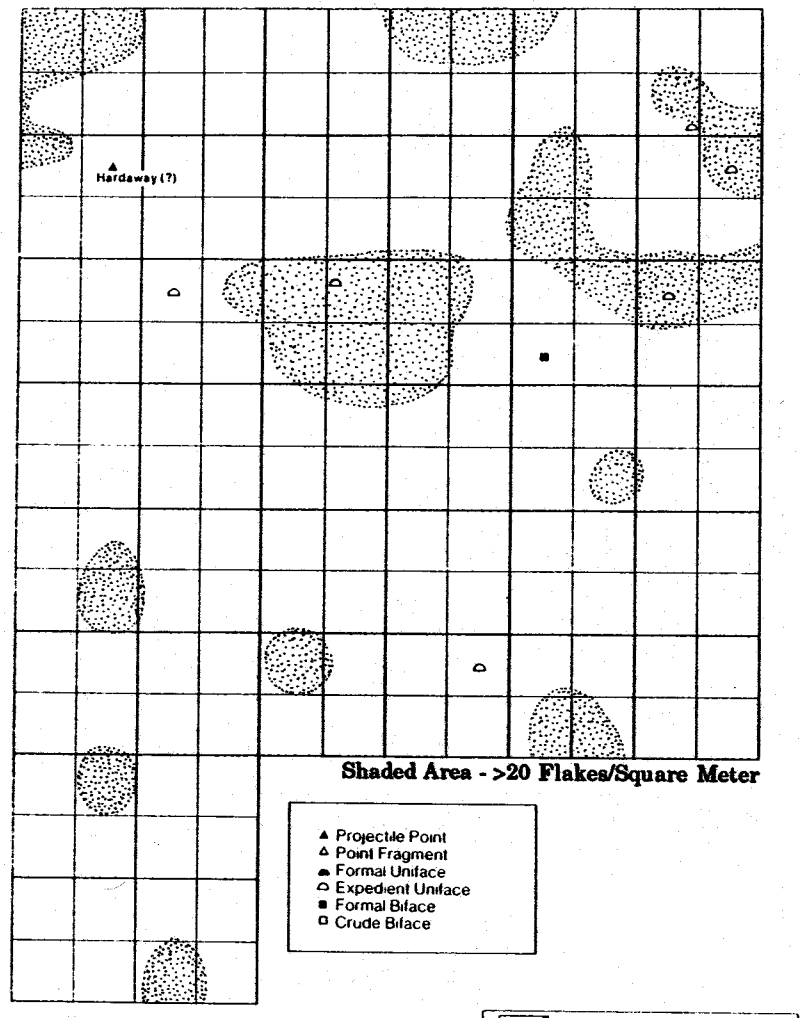
Simpson's Field (38AN8)

The only other site in the reservoir where early materials were found in what could be considered primary context was at 38AN8, Simpson's Field (Wood et al. 1986:60-61). Four chert tools, including a Clovis point, a corner-notched Palmer point, and two unifaces were found embedded in the sandy clay subsoil which immediately underlay the plowzone in XU1 (Figure 19:a,f). The artifacts were found during shovel skimming operations associated with the excavation of a

Source: Anderson and Schuldenrein 1985: 294, 299



Early Archaic Block Projectile Points and Cracked Rock (weight)



Early Archaic Block Crystal Quartz Tools and Debitage (weight)

Figure 20. Projectile Points, Cracked Rock, and Crystal Quartz Distributions, Rucker's Bottom Block.

large block unit directed to the exposure of Late Woodland and Mississippian period features, which intruded into the subsoil (see Chapters VI, VII). The early materials were found in close proximity to one another, within an area approximately 20 meters in diameter. No other associated artifacts or features were found.

The four artifacts were found on a slight rise in the floodplain, bounded on either side by two creeks and a small swampy depression. Although only slightly elevated above the surrounding landscape at the present, the location may have been more exposed in the Late Pleistocene, prior to the extensive deposition of the Holocene era. To the early human populations occupying the region, the location may have been viewed as an advantageous location for hunting and camping. The fluted point (Figure 19:a) is quite large and resembles classic western Clovis forms, suggesting it was manufactured early in the PaleoIndian era. In general size and shape it resembles fluted points found at Macon Plateau in central Georgia (Kelly 1938:7) and at the Theriault site in the lower Savannah basin (Brockington 1971:129).

Clyde Gulley (9EB357)

A highly waterworn black triangular Clovis-like point was found at the base of the Mississippian midden at the Clyde Gulley site (Figure 19:c). The material was fine grained and slightly translucent, and may be from the same source as the fluted point found at Rucker's Bottom. The point exhibited considerable reworking along its lateral margins, giving the edges an irregular appearance. The flutes or basal thinning flake scars, two on one face and one on the other, were long and somewhat asymmetrically located. No other examples of the raw material were found in the midden and this fact, coupled with the waterworn condition of the specimen, suggests that it was brought onto the site by one of the later, Mississippian inhabitants.

THE PALEOINDIAN IN THE UPPER SAVANNAH RIVER VALLEY IN LIGHT OF THE RUSSELL RESERVOIR INVESTIGATIONS

Only minimal evidence for PaleoIndian utilization of the upper Savannah River was found during the Russell Reservoir project. Three fluted points and a somewhat larger number of Dalton-like points were found, most in contexts suggesting isolated discard or deposition, or a result of a very brief occupation. No evidence for actual habitation sites were found, and settlement in the area appears to have been sparse. All three fluted points were of unusual materials that came from appreciable distances, from the lower coastal plain (i.e., Simpson's Field) and possibly from the ridge and valley province (i.e., Clyde Gulley and Rucker's Bottom), or at least as far away as the fall line. The Dalton points, in contrast, were made primarily from local materials, a pattern comparable to that observed in the upper Oconee (O'Steen et al. 1986). Most of the

Dalton points found in the Russell area, in fact, were made of quartz; only one point each were found made on metavolcanic or ridge and valley chert (Table 2). Increased group mobility, and increased use of the upper Savannah River area, is indicated by this preference for locally available lithic raw materials. While predominantly surface data, the PaleoIndian materials from the reservoir can be examined in relation to other assemblages from the region. Some 50 fluted points, and over twice as many Dalton points, for example, are currently known from the Savannah River basin, as documented by collections research (Charles 1981; Anderson et al. 1986a; 1986c). While population densities were low, these figures indicate that basin was occupied during this early period.

THE EARLY ARCHAIC PERIOD (ca. 10,000 - 8000 B.P.)

Introduction

The Early Archaic period in the Eastern Woodlands of North America is widely viewed as a time of initial human adaptation to Holocene, post-glacial climatic conditions. Accepting the placement of the Pleistocene/Holocene boundary at 10,000 B.P., a roughly 2000 year span for the Early Archaic period is employed in most cultural sequences. The end of the Early Archaic is usually equated with the onset of the Hypsithermal episode, at about 8000 B.P. In its most common expression, the period is viewed as one in which the assumed predominantly big-game hunting, focal adaptation of the PaleoIndian period was replaced by a more generalized or diffuse "Archaic" hunting and gathering way of life (Anderson and Hanson 1988).

In the lower southeast, Early Archaic components are recognized almost exclusively by the presence of diagnostic side and corner-notched and bifurcate-based projectile points. These hafted biface forms and their inferred period of occurrence, from earliest to latest, include the Dalton and Hardaway-Dalton types, dating ca. 10,500 - 9900 B.P.; the Taylor-Big Sandy-Bolen side-notched types, dating ca. 10,000 - 9500 B.P.; the Palmer-Kirk corner-notched types, dating ca. 9500 - 8800 B.P.; and a series of bifurcate forms, including the MacCorkle, St. Albans, LeCroy and Kanawah types, dating from ca. 8900 - 7800 B.P. (Coe 1964; Broyles 1971; Chapman 1975, 1976:5-7; 1985:146; Goodyear et al. 1979:100-101; Goodyear 1982; Daniel and Wisenbaker 1987). The end of the Early Archaic in the region, which occurred around 8000 B.P., was characterized by the replacement of these notched and bifurcate forms by square and contracting stemmed Stanly (ca. 7800 - 7000 B.P.) and Morrow Mountain (ca. 7500 - 6000 B.P.) points, and the Kirk Stemmed type, dating from ca. 8000 - 7800 B.P. (Coe 1964; Chapman 1976:7; 1985:146; Goodyear et al. 1979:106; Oliver 1985). Discussion of bifurcate and Stanly assemblages found in the reservoir is largely deferred until the following chapter, since many of these points were found in transitional Early/Middle Archaic context with Stanlys, a Middle Archaic form, predominating.

The occurrence, relative temporal placement, and diagnostic utility of these hafted biface forms in the immediate South Atlantic region was initially delimited by Coe (1964) at the Hardaway and Doerschuk sites in Piedmont North Carolina. Subsequent excavations have provided extensive confirmation and some refinement of this sequence, which has been found to have general utility throughout Georgia and the Carolinas (Michie 1969, 1971; Anderson et al. 1979, 1982; Claggett and Cable 1982; Tippitt and Marquardt 1982, 1984; Oliver 1985). Sequence definition and refinement and component identification tend to dominate ongoing research, although some studies have appeared that attempt to move beyond this stage. Within the past ten years, for example, it has become evident that Early Archaic sites are common on the South Atlantic Slope and occur in a wide range of microenvironmental zones (Hanson et al. 1978:105; Taylor and Smith 1978:318; Goodyear et al. 1979:105; Anderson et al. 1979:91; Phelps 1983:21; O'Steen 1983:78-81; Anderson and Schuldenrein 1983a; Anderson and Hanson 1988).

Traditional Views of Early Archaic Settlement in the Southeast

Many of the views that dominated professional archaeological assessment of Early Archaic settlement systems during the 1950s and 1960s and in some instances to the present day were outlined by Griffin (1952:354-355), in a paper entitled "Culture Periods in Eastern United States Prehistory." A picture of small, exogamous, probably patrilineal and patrilocal egalitarian bands moving within specific hunting territories was advanced. Seasonal population movement linked to resource procurement, as well as periodic aggregation for ceremonial purposes and information sharing, were suggested facets of Early Archaic life. The paper that had perhaps the most profound impact on subsequent views on Early Archaic lifeways and settlement, however, was Caldwell's *Trend and Tradition in the Prehistory of the Eastern United States* (Caldwell 1958). Caldwell argued that although the Eastern Woodlands were rich in exploitable foodstuffs, aboriginal knowledge about the occurrence and effective utilization of these resources only slowly developed. Life prior to the establishment of what he called "primary forest efficiency" was portrayed as "unsettled, nomadic... almost completely wandering" (Caldwell 1958:8-11). Because the specialized nut-processing economies observed later were not in evidence, hunting was thought to be of considerable if not primary importance (Caldwell 1958:9,13). This picture of Early Archaic life, as a highly mobile, predominantly hunting adaptation has continued to dominate thinking about the period.

The basic premise of Caldwell's "primary forest efficiency" argument, that it took thousands of years for local aboriginal populations to learn how to effectively exploit the eastern forest, has been severely challenged in recent years. It can no longer be assumed that plant foods were a relatively minor, unimportant part of the early Holocene diet (Asch et al. 1972; Asch and Asch 1985; Cowan 1985; Ford 1977, 1985; Smith 1986). While probable plant processing tools have been only rarely noted in Early Archaic excavation reports (as reviewed in Goodyear et al. 1979:104-105), recent compilations suggest that they may be more prevalent than once thought (Chapman 1977; Anderson and Schuldenrein 1983a; Neusius and

Wiant 1985; Smith 1986). Where favorable preservation occurred, and where careful recovery procedures have been used, evidence for plant exploitation has been found to be fairly common, as Chapman's work in the Little Tennessee River Valley has demonstrated (Chapman and Shea 1981:63, 77; see also Cowan 1985 and Asch and Asch 1985 for similar examples).

Recent Early Archaic Investigations in the Lower Southeast

Work in rockshelters such as Russell Cave and Stanfield-Worley characterized most Early Archaic research in the lower southeast prior to the 1960s, excepting only Coe's (1964) pioneering work in the Yadkin River floodplain of North Carolina. By the later 1960s, and particularly in the 1970s and 1980s, extensive excavation of floodplain as opposed to rockshelter settings came to dominate field data recovery approaches to the study of earlier Archaic occupations, although work in the latter settings continued. Major Early Archaic assemblages recovered from deeply stratified alluvial sites in the southeastern United States in recent years include materials from several sites in the Shenandoah Valley of northern Virginia (Gardner 1974, 1977, 1983); from a number of sites in the Little Tennessee River Valley, including Icehouse Bottom, Rose Island, Patrick, Harrison Branch, and Bacon Farm (Chapman 1973, 1975, 1976, 1977, 1978, 1985; Schroedl 1975, 1978); and from the Haw River sites in North Carolina (Claggett and Cable 1982), to cite perhaps the best known examples.

Coupled with this excavation activity, there has been a tremendous increase in site distributional data. Literally hundreds of Early Archaic components, identified by the presence of diagnostic hafted bifaces, have been reported from the Georgia-South Carolina-North Carolina area in recent years (Hanson et al. 1978, 1981; Goodyear et al. 1979; Anderson et al. 1979; Elliott and Doyon 1981; O'Steen 1983; Anderson and Schuldenrein 1983a, 1985). In South Carolina, for example, Hanson (personal communication 1988) has recorded data on almost 1200 discrete Early Archaic components on over 800 sites, and comparable numbers of components have no doubt been recorded in Georgia and North Carolina. The marked increase in knowledge in recent years is due in large measure to CRM-mandated survey and excavation activity. Contributing factors have included an increased awareness of the research potential of private collections, and the fact that the Early Archaic period has been the focus of extended research by several local scholars.

A number of Early Archaic sites have been tested in the general Savannah River area in recent years, mostly through small-scale, areally limited excavations. These assemblages include materials from probable quarry workshop sites such as Theriault (Brockington 1981), as well as from terrace locations in the Coastal Plain such as Cal Smoak, SN08, SN09, SN13, and Pen Point (Anderson et al. 1979; Elliott 1986; Wise 1986; Espenshade 1986; Sassaman n.d.). On the fall line similar excavations have been conducted at Taylor Hill, and in the piedmont at Gregg Shoals and at several locations in the Wallace Reservoir (Elliott and Doyon 1981; Tippitt and Marquardt 1984; O'Steen et al. 1986). In addition, areally extensive

excavations have been conducted at several Early Archaic sites in the Little Tennessee River area of eastern Tennessee, and at the Rucker's Bottom and G. S. Lewis sites in the piedmont and coastal plain portions of the Savannah River drainage, respectively (Chapman 1973, 1975, 1978, 1985; Anderson and Schuldenrein 1983a, 1985; Hanson 1985; Anderson and Hanson 1988).

Models of Early Archaic Settlement

While an extensive body of Early Archaic site and assemblage data has accumulated in the southeastern United States in recent years, the development of theoretical settlement and subsistence models has been slow to occur. Major attempts at Early Archaic settlement modeling in recent years in the lower Atlantic Slope have been: (1) Cable and Claggett's (1982) "Temperature-Organizational" model, as tested at the Haw River sites (Claggett and Cable 1982) and across the South Atlantic Slope (Anderson and Schuldenrein 1983a); (2) O'Steen's (1983) Wallace Reservoir Model; and (3) Anderson and Hanson's (1988) "Band/Macroband" biocultural model. Each of these is discussed in turn below.

The Haw River Effective Temperature/Technological Organization Model. In the context of a major excavation and reporting program centered on two deeply stratified sites along the Haw River in the central Piedmont of North Carolina, Claggett and Cable (1982) argued that changes in the technological organization of local PaleoIndian through later Archaic adaptations were a direct, if delayed response to post-glacial warming. Because the late Pleistocene and early Holocene was a time of dramatically increasing average annual temperature in the southeast, these conditions would have had a considerable effect on local resource structure and hence on hunter-gatherer organizational strategies:

> It is suggested that this dynamic and rapid shift from a cool, boreal setting to a warmer, temperate setting might cause the adaptive organizations of early to mid-Holocene hunter-gatherers to exhibit a hypothetical directional trend from systems emphasizing logistical mobility to systems dominated by "mapping on" strategies. Since logistical strategies result in fewer residential moves, we should expect a decrease in the degree of residential permanence from the Early to Middle Holocene (Claggett and Cable 1982:13).

The inferred increase in residential mobility and decrease in residential permanence suggested by this model runs counter to the traditional view advanced by Caldwell (1958), that increasing sedentism characterized Archaic developments in the region (Claggett and Cable 1982:13; Cable 1982a).

In brief, following arguments developed by Binford (1980), the Haw River "effective temperature/technological organization" model states that the Early Holocene temperature increase led to a shift from logistical to residential mobility, with a corresponding shift in assemblages from a highly curated or logistical, collector-based technology, to a highly expedient, situational technology better suited to a foraging adaptation. At the Haw River sites, where the study of directionality

within local technological adaptations formed a primary research goal, a pronounced shift from curated to expedient tool forms was noted, at or shortly after the Dalton/Palmer boundary (Claggett and Cable 1982:686-687, 764). The data from the Haw River sites thus suggested that by ca. 9800 B.P., at least in this part of the southeast, a predominantly residentially mobile, foraging adaptation had become established.

This conclusion was supported in a further test of the Haw River model by Anderson and Schuldenrein (1983a:201), in an examination of assemblage data from 98 sites. They found that most published Early Archaic site assemblages from Georgia and the Carolinas were characterized by highly expedient technologies, with only a low incidence of formal, curated tools. The variation in assemblage size and composition between sites that was observed, it was suggested, was more likely the result of re-occupation than major differences in site function. A high level of group mobility was further indicated, particularly along rather than across drainages, through an examination of the incidence of local vs. extralocal raw materials on diagnostic projectile points (Anderson and Schuldenrein 1983a:201, 205). The primary conclusion of the Haw River model, that a pattern of extensive residential mobility may have appeared early in this part of the southeast, during the Early Archaic, is in direct opposition to most of the other Early Archaic settlement models advanced to date, which posit permanent to semi-permanent base camps occupied much of the year.

The Wallace Reservoir Early Archaic Model. One of the more ambitious attempts to examine Early Archaic settlement on a portion of the South Atlantic Slope in recent years has been by O'Steen (1983), based on an analysis of 363 Early Archaic projectile points from 248 sites located in the floodpool of the Wallace Reservoir, on the upper Oconee River in the eastern Georgia piedmont. O'Steen (1983:68-69, 99) was able to demonstrate that Early Archaic site density and base camp incidence along the upper Oconee was highest in areas of greatest resource density and diversity (possible base camps were defined as sites where more than one Early Archaic point or component were found; O'Steen 1983:106). The majority of multicomponent/multipoint sites occurred at the confluence of two or more drainages. These floodplain sites were interpreted as spring, summer, and/or fall base camps, while the upland base sites were interpreted as fall/winter camps (O'Steen 1983:106-108). Single point loci, the most widely scattered class of sites, occurred on all land surfaces and along both major and minor drainages. These sites, which outnumbered multicomponent/multipoint sites by a 5:1 ratio, were interpreted as transitory hunting/butchering camps (O'Steen 1983:108-109).

Using population density estimates for hunter-gatherers of from 0.05 to 0.13 persons/square kilometer (taken from Jochim 1976:134), O'Steen (1983:110) argued that the area of the Wallace Reservoir may have supported between 80-200 people at any one time during the Early Archaic. Following the same line of reasoning, she argued that a maximum band (defined by Wobst 1974:152 as "a marriage network which guarantees the biological survival of its members") of approximately 475 people may have been present within the overall Oconee basin, which extended over about 13,600 square kilometers (O'Steen 1983: 112). In contrast to

the studies conducted by Claggett and Cable (1982) and Anderson and Schuldenrein (1983a) noted previously, O'Steen argued that local Early Archaic populations were comparatively sedentary, operated within small territories, and probably obtained their extralocal lithic raw materials through trade (1983:115-116). The evidence marshalled in support of this position, that this type of adaptational system tended to occur among "hunter-gatherers in temperate, ecologically diverse environments" (O'Steen 1983:115), remains to be demonstrated archaeologically (e.g., Binford 1980, 1983; Kelly 1983), and depends upon the nature of early Holocene paleoenvironment conditions and resource structure. Overall, the attempt to incorporate an array of factors, including paleoenvironmental conditions, microenvironmental variability in site location, and the need to maintain viable mating networks represented an important advance.

The Band/Macroband Biocultural Model. The third generalized model of Early Archaic settlement to emerge on the South Atlantic Slope in recent years has been Anderson and Hanson's (1988) "band/macroband" model, which was evaluated with archaeological data from the Savannah River basin. The impetus for this model, in fact, came about in part as a result of the work in the Richard B. Russell Reservoir. The model was developed in an effort to interpret the major Early Archaic assemblages found at Rucker's Bottom and at the G. S. Lewis East site in the lower portion of the drainage, on the Savannah River Plant (Hanson 1985). The discussion that follows is drawn from the basic presentation of this model (Anderson and Hanson 1988).

Four limiting factors, it was argued, strongly conditioned the structure and operation of Early Archaic adaptations on the South Atlantic Slope:

1. Environmental structure, specifically seasonal and geographic variation in food and other resource distribution patterns.

2. Biological interaction, manifest in mating network regulation.

3. Information exchange, notably for mating network maintenance and subsistence resource regulation, most probably embedded in patterns of intra and intergroup mobility, and social and economic interaction.

4. Demographic structure, evidenced in population size and spacing.

Two levels of settlement organization were proposed, corresponding to local (band-level) and regional (macroband) organizational systems (Figure 21). At the band level, co-residential population aggregates of from roughly 50 to 150 people were proposed. A hypothesized pattern of annual band mobility within the Savannah River Basin was advanced. Regional social entities, macrobands corresponding to Wobst's (1974) minimum equilibrium mating networks and assumed to consist of from roughly 500 to 1500 people were also proposed. A spatial model for the distribution of individual bands over the South Atlantic

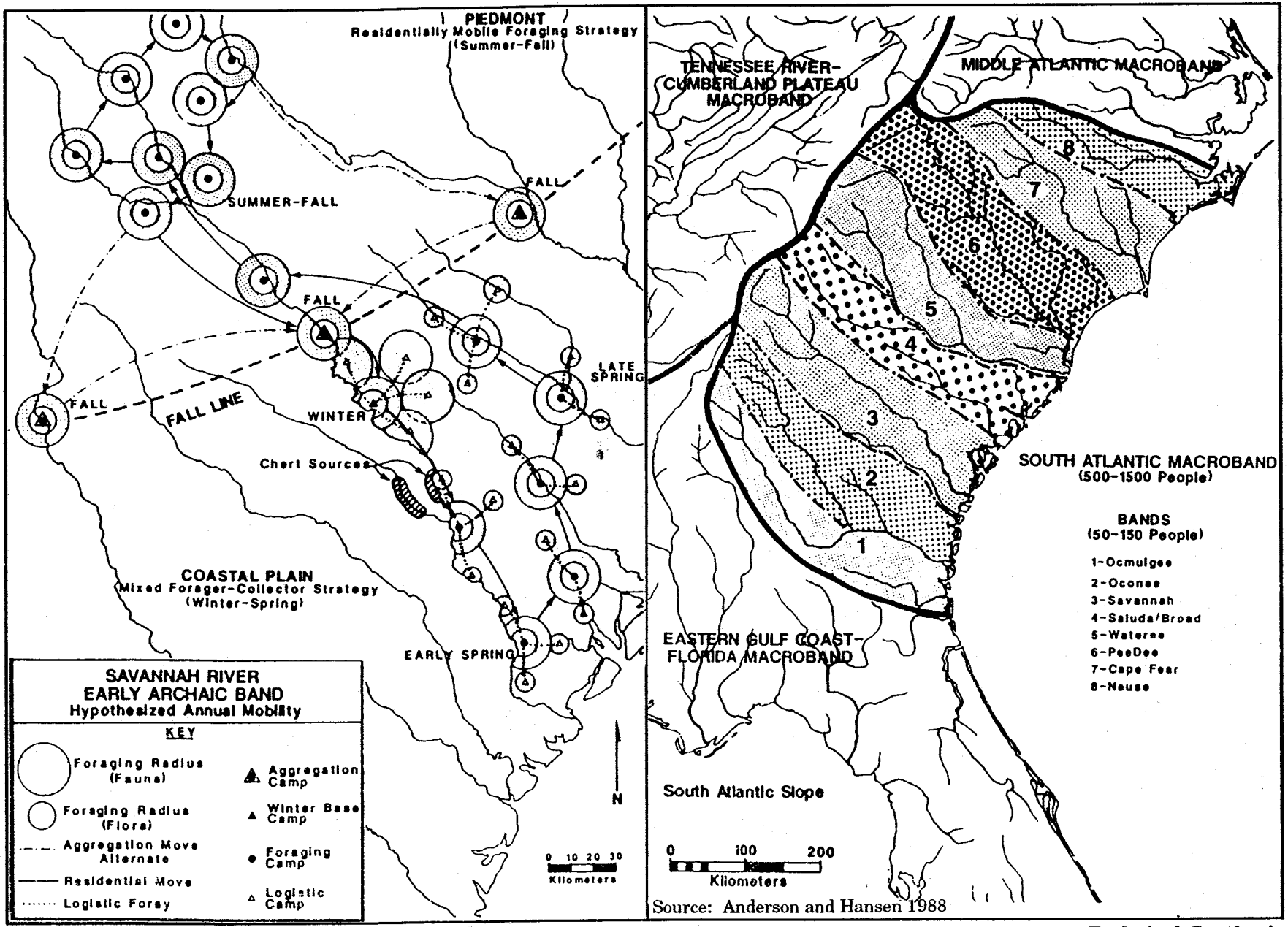


Figure 21. Early Archaic Band Level Mobility and Macroband Distributions, Savannah River Region.

Slope, and macrobands over this part of the southeast, was advanced.

In brief, the hypothesized annual settlement round was characterized by the use of logistically provisioned base camps during the winter, and foraging camps throughout the remainder of the year. Annual movement was towards the coast during the early spring, back into the upper coastal plain and piedmont during the later spring, summer, and early fall, with a return to the winter base camp in late fall. The return to the winter base camp may have incorporated side trips to other drainages, for aggregation events by groups from two or more different drainages. Fall line river terraces were posited aggregation loci since the dramatic character of this macro-ecotone, where rocks and shoals first appeared proceeding inland from the coast, would facilitate population rendezvous. The occurrence of rich Early Archaic assemblages in fall line sites over the region indicated that these areas saw use in special activities of some kind (Michie 1971; Anderson 1979a; Wetmore 1986; Wetmore and Goodyear 1986).

Low population densities of between 50 to 150 people per drainage were proposed during the initial Early Archaic occupation of the region; this figure in all probability increased over time, leading to group fission and a concomitant decrease in annual range. The low incidence of diagnostics from this period found during archaeological surveys formed the primary argument against high population densities. It was cautioned, however, that the primary focus of the modeling exercise was on patterns of annual population movement and resource procurement, and not on precise population estimates.

The hypothesized regional distribution of Early Archaic band-level groups is illustrated in Figure 21 and reflects the northwest to southeastward trending flow of most major drainages, from the Appalachian Mountains to the ocean. The maintenance of viable Early Archaic populations required mating networks extending over a large area (Wobst 1974; Wilmsen and Roberts 1978; Wright 1981). To maintain a minimal equilibrium population, given the population levels assumed in the model, several bands had to be in regular contact. The fluid movement of individuals coupled with periodic aggregation of larger social groups at fall line locations, were suggested mechanisms by which this interaction was maintained (see also Conkey 1980; Hayden 1982; Wiessner 1982).

A pure "social fluidity" model, postulating only the movement and interaction of individuals and not of groups, does not appear a viable strategy locally given conditions during the Early Archaic. Aggregation appears essential in very low density settlement systems, and where social groups move largely as units (Wilmsen and Roberts 1978; Conkey 1980; Moore 1981). The need to find and exchange mates in a cultural environment characterized by an extremely low population density is what drives this model, and presumably earlier PaleoIndian settlement systems. As the landscape filled up over the course of the PaleoIndian and subsequent Archaic periods, the strength of this driving force would lessen. Social fluidity may be an entirely appropriate mechanism of intergroup contact and mating network maintenance during the Middle Archaic, and has been inferred in some local models (Sassaman 1985a; Blanton and Sassaman 1988).

Early Archaic assemblages from seven sites in and near the Savannah River Valley, including the Rucker's Bottom and Gregg Shoals sites from the Russell Lake area, were examined in an initial test of the model (Anderson and Hanson 1988). The analysis suggested that Rucker's Bottom and Gregg Shoals were short duration, warm season foraging camps, with the G. S. Lewis East site in the inner coastal plain a winter base occupied by these same groups, but employing a collector, or logistically-based technology more appropriate to the seasonal conditions.

EVIDENCE FOR EARLY ARCHAIC OCCUPATION IN THE RUSSELL RESERVOIR

Introduction

Over seventy Early Archaic components were found in the Russell Reservoir, including 59 early components identified by Palmer and Kirk Corner Notched and Kirk Stemmed points, and 12 later Early Archaic components, identified by the presence of bifurcate and Stanly points (Table 2, Figure 3). The terminal Early Archaic/initial Middle Archaic Kirk Stemmed type (dated from ca. 8000 to 7800 B.P.; Coe 1964; Chapman 1985:146) was included in the initial Early Archaic period due to its overall morphological similarity and distributional co-occurrence with Kirk Corner Notched forms in the reservoir. Kirk Stemmed points were observed at five sites, and were combined with the data for Palmer and Kirk Corner Notched to provide the figure for the total number of initial Early Archaic components in the reservoir (N=59; Table 2, Figure 3).

One major Early Archaic assemblage was excavated in the reservoir, at Rucker's Bottom, and minor components were examined at two other sites, at Gregg Shoals and Clyde Gulley (Anderson and Schuldenrein 1983a, 1985; Tippitt and Marquardt 1984). This work has helped document assemblages characteristic of this time level, providing a baseline from which to examine trends over subsequent periods. Of particular interest, the stratigraphic columns and archaeological signatures from these and other reservoir sites have proven invaluable for documenting changing patterns of raw material and tool utilization over time in the upper Savannah River area.

Rucker's Bottom (9EB91)

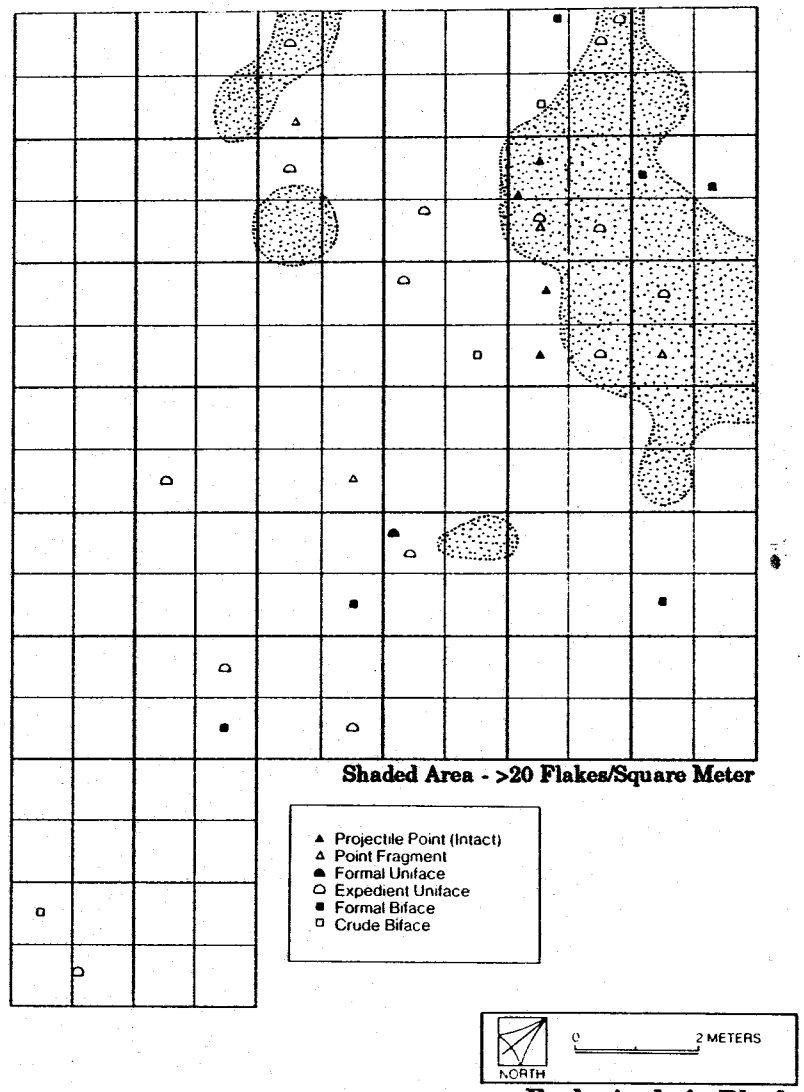
Extensive Early Archaic assemblages were found at Rucker's Bottom, on a low terrace/levee remnant on the western side of the river immediately north of the confluence of Van Creek, a minor tributary channel draining the adjoining uplands (Anderson and Schuldenrein 1983a, 1985). Early Archaic materials, identified by the presence of Palmer projectile points, were found along an approximately 200 meter section of the terrace in stratified contexts at depths of from approximately 70 to 120 cm below the surface. A number of test pits and

backhoe trenches were opened over the terrace to document the extent and geoarchaeological context of the deposits, and a 160 square meter block unit was excavated, with all fill passed through 1/8 inch mesh (Figures 19, 20, 22, 23).

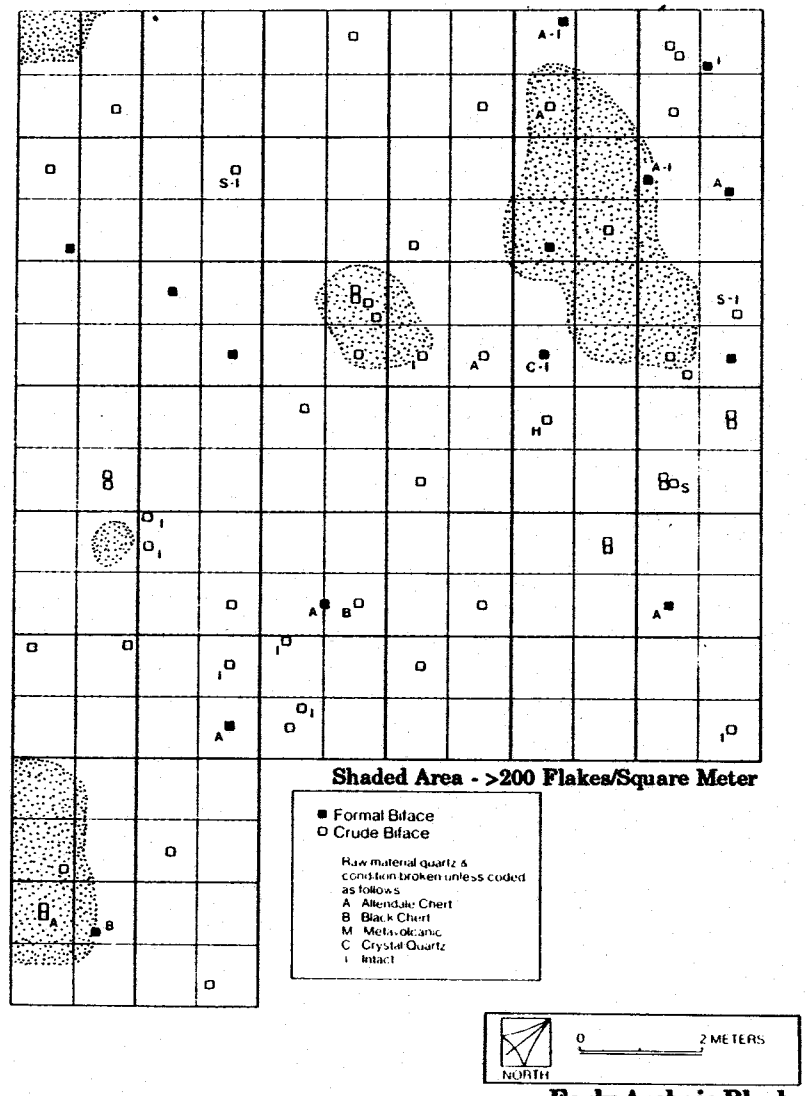
The spatial organization and assemblage composition of the Early Archaic assemblage at Rucker's Bottom was relatively uncomplicated. No obvious features (i.e., tight concentrations of rock, fired clay, charcoal, or other anthropogenic staining) were observed, although 14 diffuse scatters of cracked rock were evident that may reflect hearth remnants (Figure 20). The stone tool assemblage included projectile points and well-flaked bifacial core/tools, as well as a range of less well-executed, presumably expedient bifacial and unifacial tools (Figure 22). Formal unifaces characterized by evidence for hafting and carefully retouched margins were rare. Thirty-two cobbles and cobble tools were recovered, including two with grinding facets and four that were pitted; use of these objects for both lithic raw material reduction and plant processing activity was suggested (Figure 23). Debitage distributions within the block suggest both tool kit maintenance (i.e., resharpening) and replacement (i.e., gearing-up) activities were occurring; much of the larger debris appears related to the production of flakes or crude bifaces for use as expedient tools. Some spatial separation in the occurrence of hafted bifaces and most other flaked tool forms was evident, suggesting different patterns of use and discard for these categories.

Extralocal raw materials made up roughly 20 percent of both the debitage and flaked stone tool assemblages recovered at Rucker's Bottom, suggesting a fair degree of mobility or interaction for the populations using the site. Just over half of the 28 Palmer points (N=15) found in the block were made of locally available vein quartz, while the remainder came from presumably more distant sources. Eight points were made of yellow Allendale chert from the central coastal plain some 175 kilometers downriver, and three points were a black chert of unknown origin, thought to originate either near the fall line or in the ridge and valley province of Tennessee. Extralocal raw material debitage was almost uniformly composed of small flakes; only the vein quartz debitage, of material immediately at hand in cobble form in the adjacent river channel, exhibited a greater size diversity. Maintenance and discard of tools of extralocal materials was evident, as well as the manufacture, maintenance, and discard of tools of locally available materials.

The size, duration, and seasonality of specific occupations at Rucker's Bottom were difficult to ascertain given the comparatively small area examined, the minimal stratification within the Early Archaic deposits themselves, and the absence of preserved floral and faunal remains. The block assemblage appeared, however, to reflect a number of small, overlapping occupations. At least two Palmer components were suggested, based on the occurrence of these diagnostics in two apparent clusters. These were a large diffuse scatter in the eastern part of the block, and a smaller, more isolated cluster in the western portion (Figure 20). Earlier Hardaway and Clovis components may have also been present in this general area, something suggested by the recovery of isolated examples of these types in the same deposits. These earlier occupations, as noted previously, were either ephemeral, or were centered elsewhere on the terrace (assuming that the



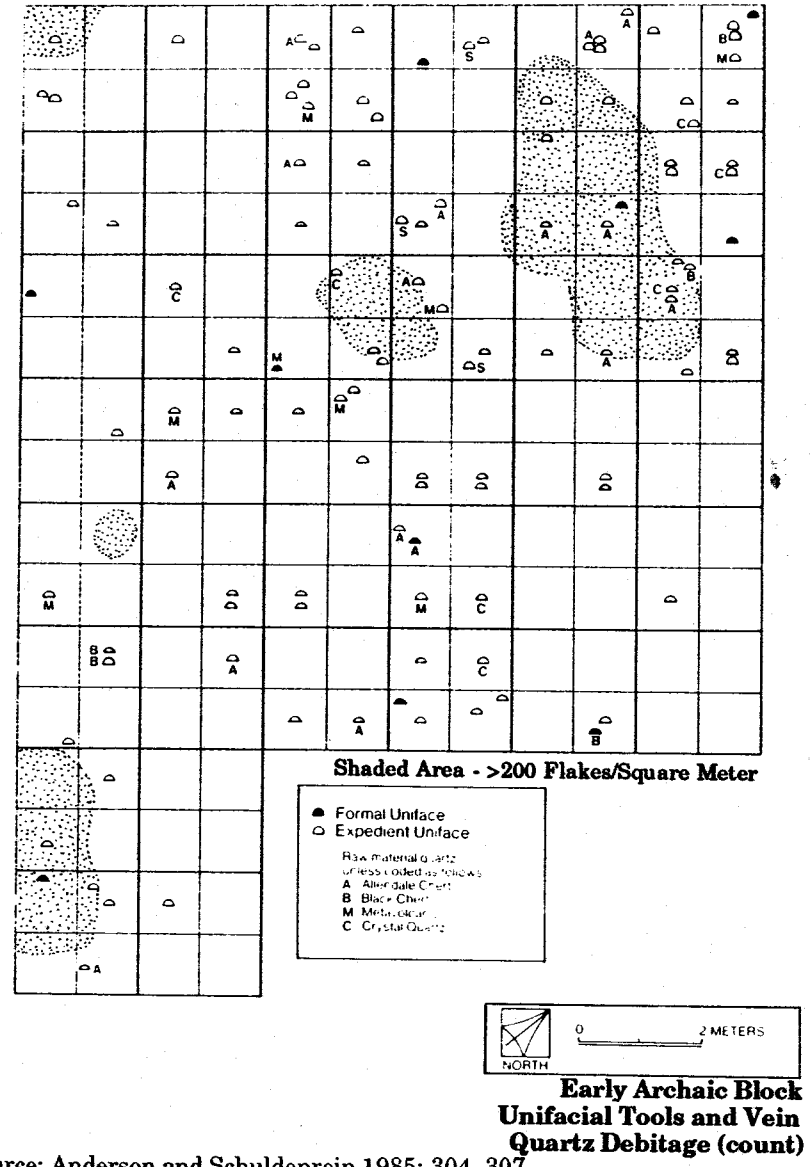
Early Archaic Block
Allendale Chert Tools and Debitage (count)

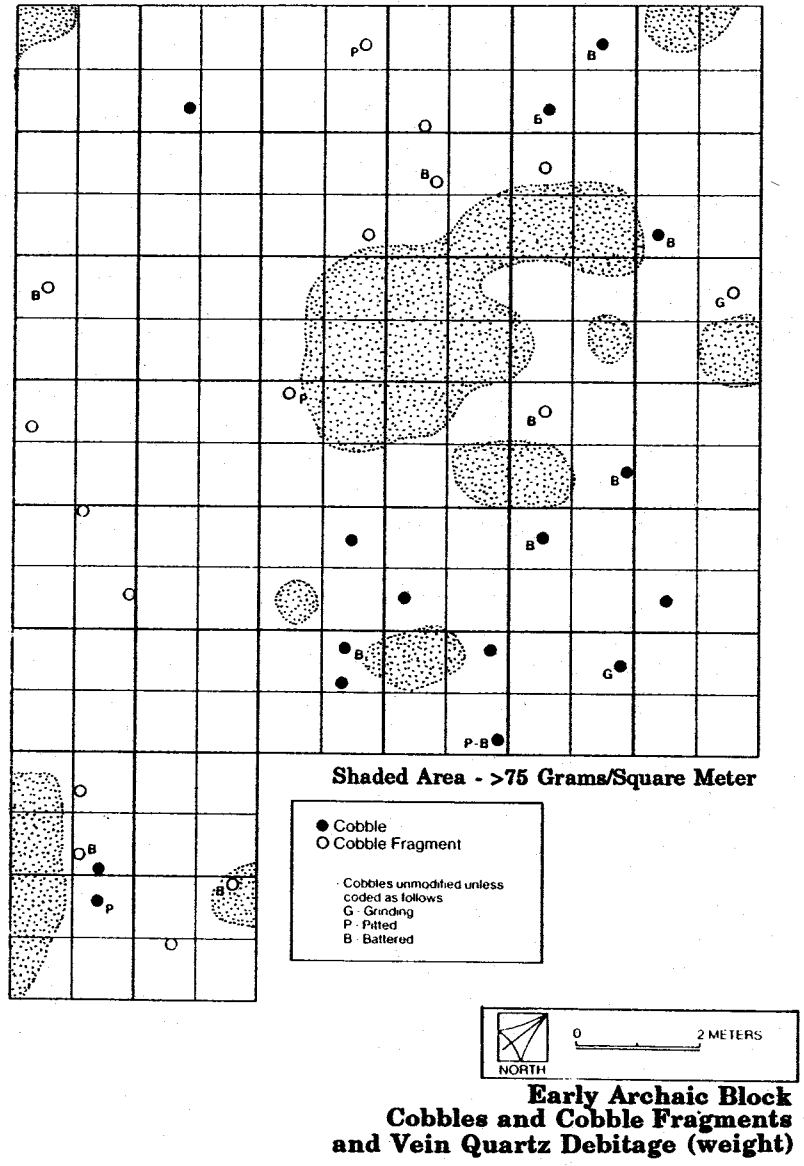


Early Archaic Block
Other Bifaces and Vein Quartz Debitage (count)

Source: Anderson and Schuldenrein 1985: 300, 301

Figure 22. Coastal Plain Chert, Other Bifaces, and Vein Quartz Debitage Distributions, Rucker's Bottom Block.





Source: Anderson and Schuldenrein 1985: 304, 307

Figure 23. Unifacial Tools, Cobbles, and Vein Quartz Debitage Distributions, Rucker's Bottom Block.

diagnostics actually reflect discrete occupations and not subsequent, Palmer period collection and discard of these artifacts).

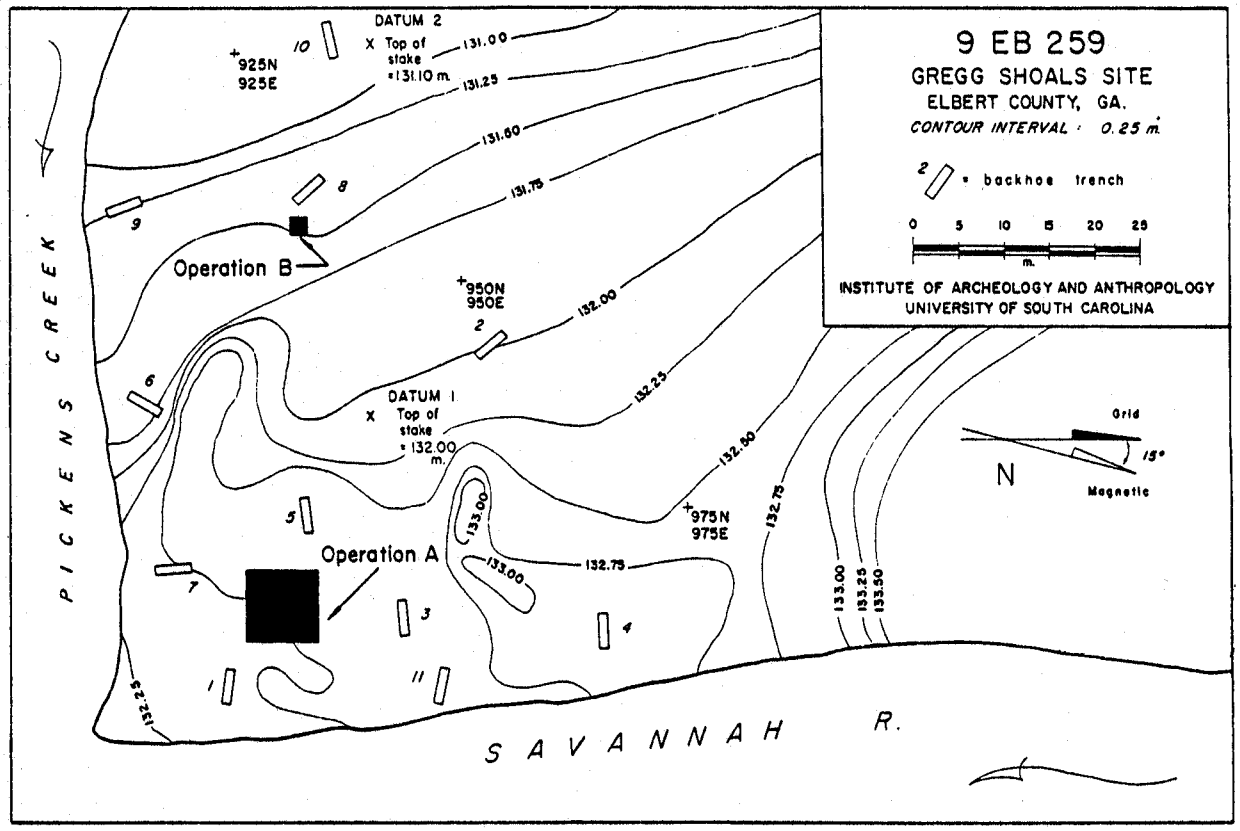
Given the incidence of possible hearth areas in the excavation block, and the extent to which Early Archaic remains were found over the site, it is probable that several dozen similar artifact clusters, and possibly as many as 800 to 1000 hearths were present on the terrace. Given such a density, some degree of occupational overlap is inevitable. At least some, and quite possibly an appreciable proportion of the block unit assemblage may, in fact, represent overlapping or outlying debris from several such clusters. While the Rucker's Bottom Early Archaic feature/concentration density appears high, an accretion of roughly one hearth per year or one artifact cluster per decade over the 2000 year span of the Early Archaic period could easily account for the site record. Although repeated use of the terrace is indicated, the size of these occupations need not have been large.

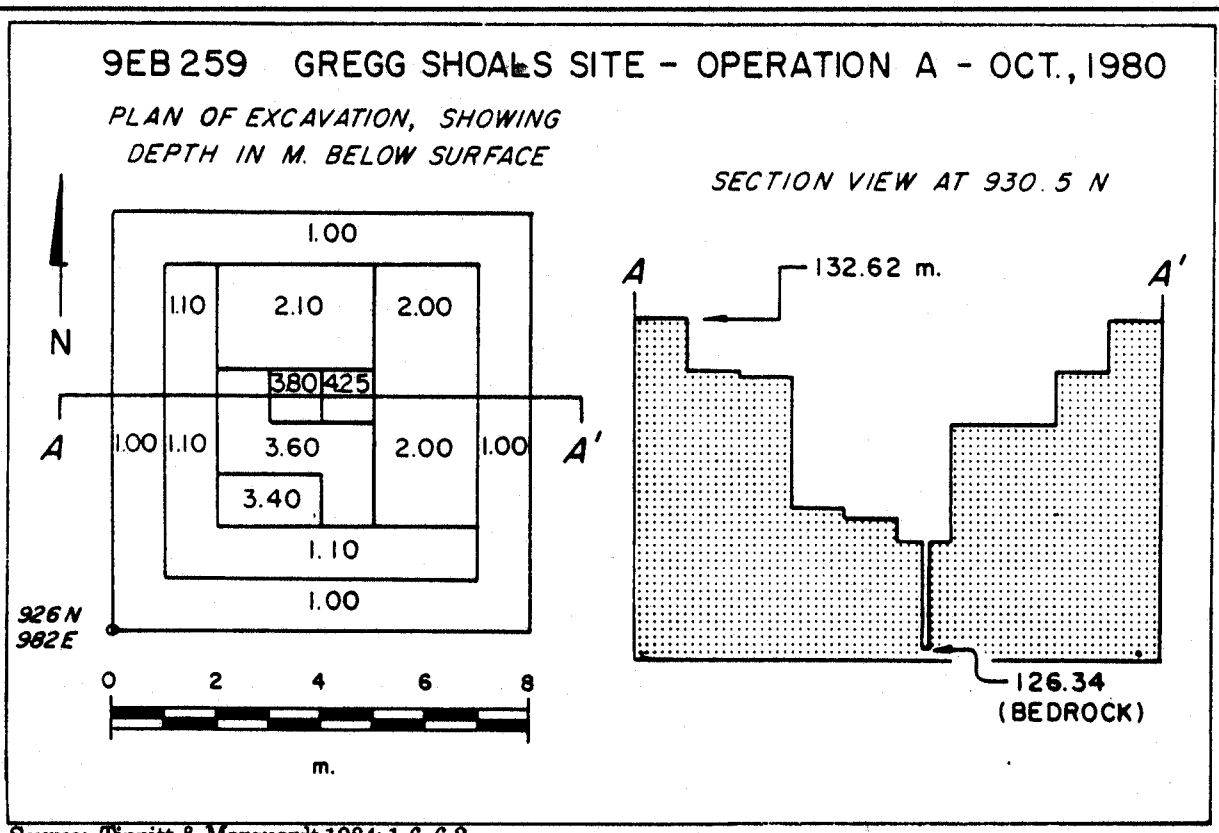
Given the absence of well-defined hearths, or evidence for structures of any kind, warmer weather occupations have been suggested. This inference is somewhat supported by the stone tool assemblage data. The low incidence of formal flaked stone "scraping" tools (i.e., steep-angled hafted unifaces) may indicate a minimal amount of hideworking, an activity that probably usually occurred during the fall and winter, when animal pelts were in prime condition. The presence of possible plant processing cobble tools, furthermore, points to warmer weather occupations, although the pitted stones could have seen fall/winter use in nut processing. Taken together, the evidence suggests that Early Archaic site use at Rucker's Bottom was of short duration, by groups using a predominantly expedient technology, and characterized (given the moderate incidence of extralocal materials) by a mobile, wide-ranging adaptation.

Gregg Shoals (9EB259)

The Gregg Shoals site was located on a high terrace immediately to the north of the confluence of Pickens Creek with the Savannah River (Figure 24). Over three meters of stratified archaeological deposits were found, offering a valuable perspective on the prehistoric cultural sequence in the reservoir. Excavations at the site included systematic testing using a six inch bucket auger, the excavation of seven 1 m test units, backhoe testing across the deposits and into the cutbank face, and the excavation of a large block unit (Goodyear et al. 1979:33-50; Gardner et al. 1983:266-275; Tippitt and Marquardt 1984). Because the depth of the site was known in advance of the major excavation program, planning for the fieldwork was able to make use of deep site experience gained from previous investigations in the region, notably in the Little Tennessee River Valley (e.g., Chapman 1975, 1978, 1985; Tippitt and Marquardt 1984:7-1).

Since the completion of the Hartwell Dam and hydroelectric plant the site area had undergone extensive erosion due to daily water fluctuations associated with power generation. Because the Gregg Shoals Dam located just to the north of the





Source: Tippitt & Marquardt 1984: 1-6, 6-2

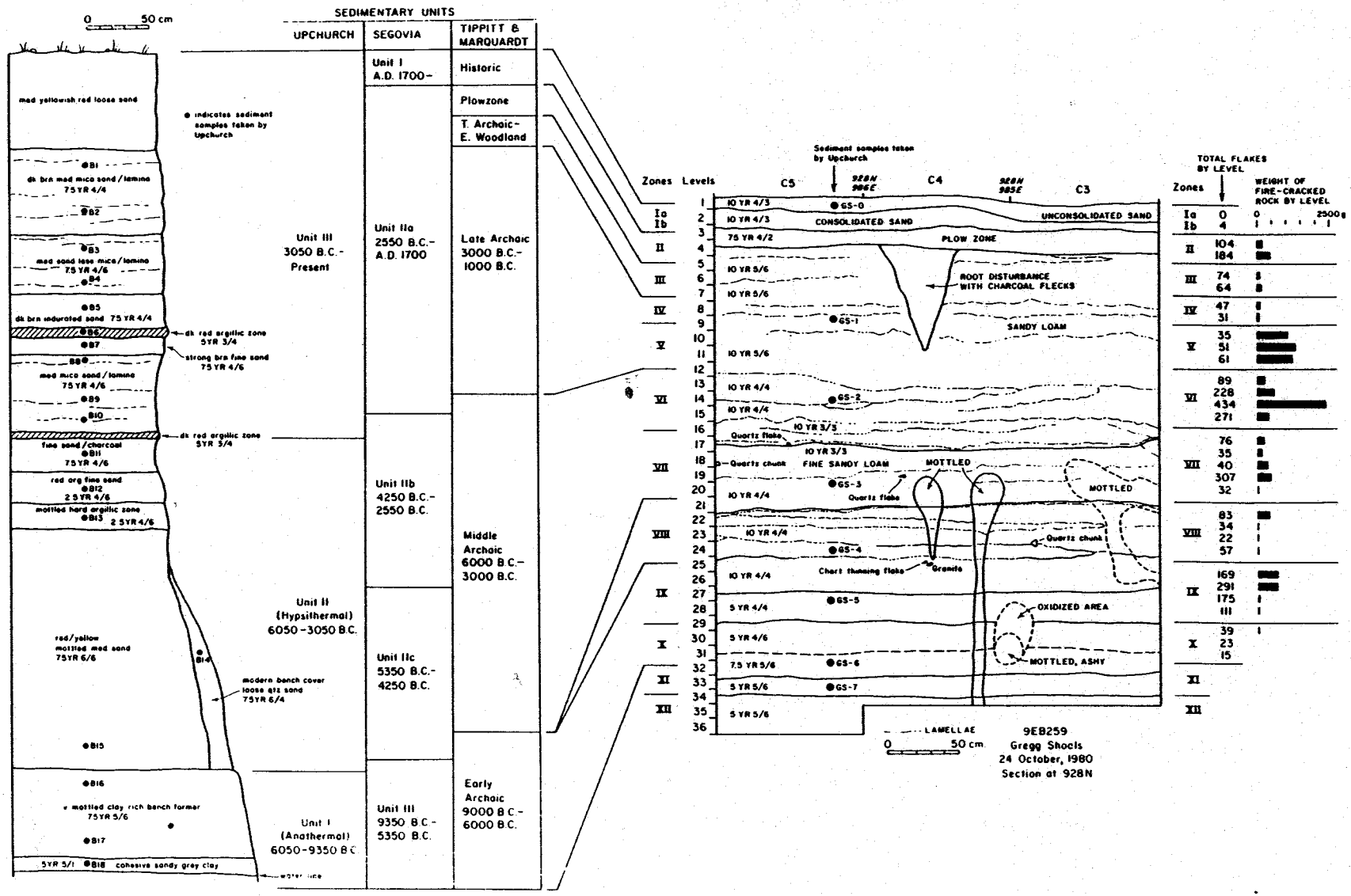
Figure 24. All Excavation Units and Deep Block Profile, Gregg Shoals Site 9EB259.

site formed a dangerous obstruction to water flowing from Hartwell Lake, it was breached in the early 1960s. Unfortunately, this was done in such a way as to direct water against the bank face containing the Gregg Shoals site, undercutting and eroding the deposits. Up to 50 m of the site closest to the channel had been washed away prior to the Russell investigations, including apparently the densest occupation zones. Massive private artifact collections were accumulated from the beach below the bank face, some of which could be examined (Tippitt and Marquardt 1984:1-4). According to these local collectors, the amount of material eroding out of the bank had dropped markedly in recent years, indicating that the densest part of the site had been lost prior to the start of the excavations. The collections included a wide range of projectile points, soapstone, and pottery, with recognizable types spanning the Late PaleoIndian to the Mississippian periods. Early Archaic bifurcate points were rare in the private collections from the site, highlighting the pattern observed across the reservoir, although three LeCroy points made of ridge and valley chert were observed (Tippitt and Marquardt 1984:1-4; note that Table 2 does not include surface material from the Gregg Shoals beach since the provenience of these collections was not completely secure).

Due to the deep, stratified nature of the alluvial deposits, intensive paleoenvironmental investigations were conducted at the Gregg Shoals locality (see Chapter III; Tippitt and Marquardt 1984:5-1 to 5-6; Upchurch 1984; Foss et al. 1985; Segovia 1985; Sheehan et al. 1985). A geoarchaeological profile spanning the entire Holocene was recovered; Late Pleistocene organic sediments at the base of the profile slightly upstream from the excavations were dated to between 10,370±140 and 10,000±140 B.P. (Segovia 1985:5; Tippitt and Marquardt 1984:5-1; Appendix I). The sedimentary units resolved in the Gregg Shoals profile in relation to the archaeological assemblages are illustrated in Figure 25.

The primary excavation block at Gregg Shoals was an 8 x 8 m unit opened in 1 m squares and 10 cm levels, with all fill waterscreened through 1/8 inch mesh (Figure 24). The 8 x 8 m block was opened to a depth of 1.0 m and was then stepped, with a 5 x 5 m block opened to 2.0 meters. Below this, a 3 x 3 m unit was opened to a depth of 3.4 m, followed by a 1 x 1 m unit opened to a depth of 4.25 m. A 3 inch bucket auger was then used to reach bedrock, which was found to lie at 6.28 m below the surface (Tippitt and Marquardt 1984:6-3). Vertical control within the block was accomplished using a fixed transit mount located on the surface, while fill was removed using a swinging metal boom and winch. Four liter flotation samples were taken from every level, and were processed on the site using an SMAP machine (Watson 1976).

Following the completion of the excavation block, when site stratigraphy had been carefully determined, heavy equipment was used to remove overburden first to the Middle Archaic and then to the Early Archaic levels, at 1.70 m and 2.55 m, respectively. A 40 square meter area was excavated next to the 5 x 5 m block opened through the Middle Archaic levels, and a 32 square meter area was opened next to the 3 x 3 m opened though the Early Archaic levels (Figure 26). In all, 41 square meters were opened into the Early Archaic deposits at Gregg Shoals

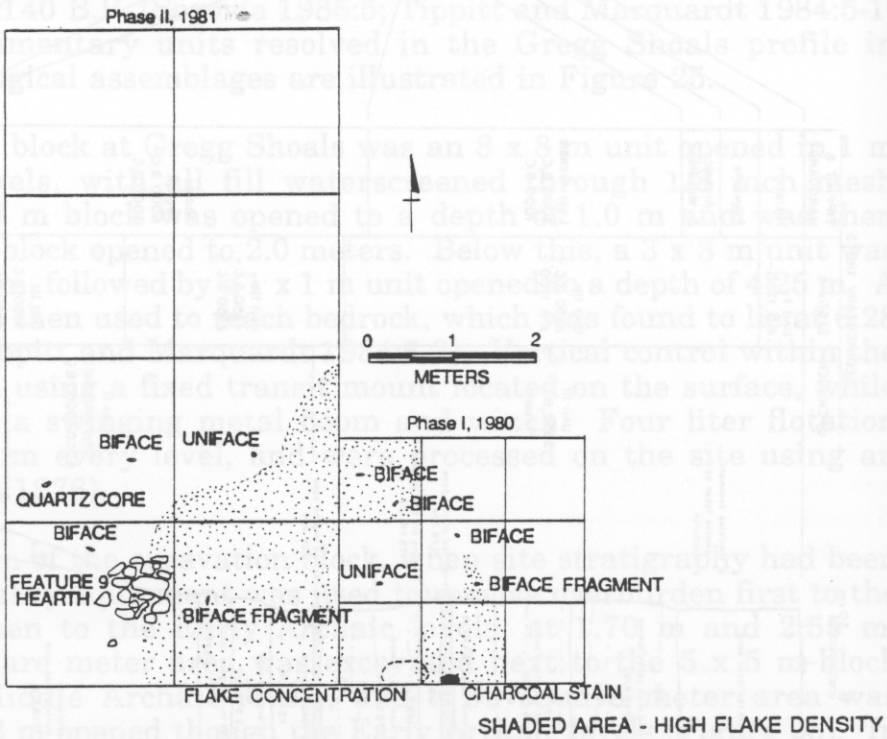


Source: Tippitt & Marquardt 1984: 5-4

Figure 25. Composite Archaeological Stratigraphy, Gregg Shoals Site, 9EB259.

Early Archaic Rock Cluster, Zone IX, 9EB259.

Source: Tippitt & Marquardt 1984: 7-43, 7-45



Early Archaic Assemblage, Zone IX, Gregg Shoals (9EB259)

Figure 26. Early Archaic Occupation Surface, Gregg Shoals Site, 9EB259.

(Tippitt and Marquardt 1984:7-8).

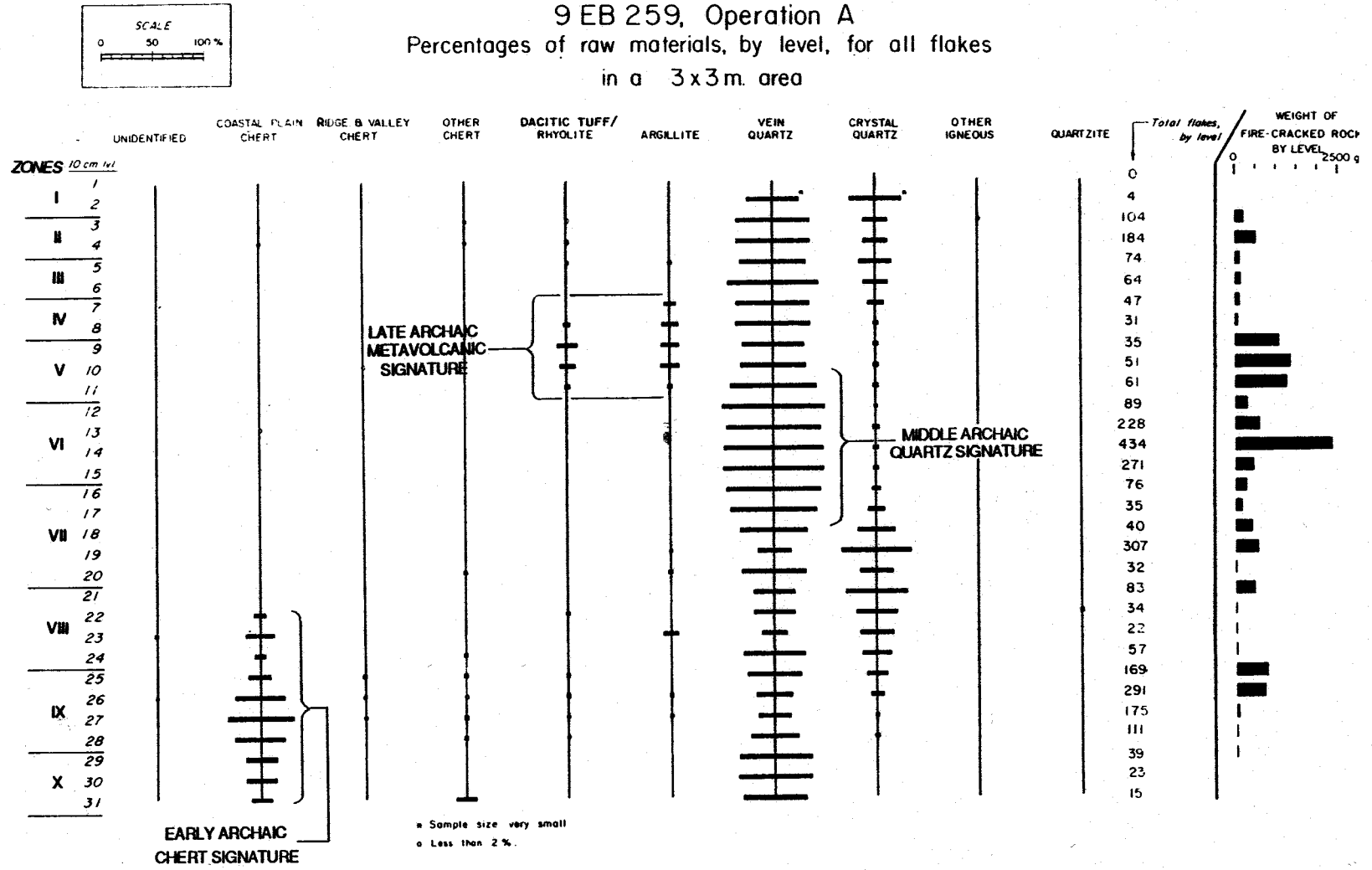
Early Archaic materials at Gregg Shoals occurred in Zone IX in the block unit, from 240 to 280 cm below the surface, stratigraphically separate from and well below the Middle Archaic assemblages found in Zones VI and VII (Tippitt and Marquardt 1984: 7-32 to 7-45; see also Chapter V, pp. 138-141). Three hafted bifaces were found in this zone, a metavolcanic Stanly stemmed, an intentionally thermally altered Kirk Corner Notched of coastal plain chert, and a highly weathered metavolcanic notched biface that may be a Stanly or some other bifurcate type (see Figure 29). Three biface fragments, one each of quartz, coastal plain chert, and ridge and valley chert were also found, as well as seven unifaces, three of chert and four of vein quartz. A comparable raw material diversity is evident within the debitage assemblage from these levels, which were dominated by chert, a signature of the initial Early Archaic in the upper Savannah River (Figure 27). The chert debitage consists mainly of small biface thinning flakes, suggesting edge maintenance, while the quartz debitage is more diversified, suggesting both manufacturing and maintenance activity (Tippitt and Marquardt 1984:7-46). Conservation of tools of fine grained extralocal material, and their replacement with tools of local material, appears indicated; a comparable pattern was observed in the Early Archaic block at the Rucker's Bottom site (see p. 119 above). No additional diagnostics were discovered in the 32 square meter area opened next to the 3 x 3 m block, although several additional wear and intentionally retouched unifaces were found.

Features associated with the Early Archaic occupations at Gregg Shoals included a rock cluster, a small circular stain ca. 25 cm in diameter and characterized by burned earth and gray ashy staining, and a concentration of debitage and tools (Figure 26). The rock cluster, which was found at a depth of 2.55 m, contained fire cracked vein quartz, river cobbles, and granite fragments. No charcoal or other organic staining was observed, although it is possible that it had been leached away. No charcoal flecks were observed in the small circular burned earth feature, which may have been a hearth remnant. Tools tended to occur close to the two probable hearth features, while the primary debitage concentration occurred between them. Given the tight spatial clustering of most of the materials around the two probable hearths, it is tempting to view the assemblage as the result of one or at the most two episodes of site use.

No clear evidence for earlier occupations was found at Gregg Shoals, although small quantities of chert and quartz debitage continued to occur to a depth of 3.1 m. Whether this represented intrusion and sifting from the Early Archaic zone, or possible earlier Archaic or PaleoIndian occupations could not be determined.

Clyde Gulley (9EB359)

The Clyde Gulley site was located immediately to the south of the confluence of Pickens Creek with the Savannah River, on a low terrace in a narrow section of the river floodplain. An Early Archaic component was discovered near the



Source: Tippitt & Marquardt 1984: 7-52

Figure 27. Debitage Raw Material Signatures, Gregg Shoals Site, 9EB259.

confluence in Backhoe Trench 3, one of 14 backhoe trenches that were opened and screened to determine the nature of the site deposits (Tippitt and Marquardt 1984:8-3, 8-14 to 8-19). A quartz Palmer, a waterworn quartz crystal, and a number of thinning flakes were found in fine sand just above a layer of red clay, at a depth of approximately 40 cm. To further explore this component, a motorized pan was used to remove the plowzone from a ca. 30 x 50 m area around the backhoe trench. A second quartz Palmer was found during the stripping. A 3 m wide cut was then made into the red clay across the southern end of the stripped area, to better ascertain the stratigraphy.

An irregular, linear excavation block encompassing an approximately 43 square meter area was then opened adjacent to the 3 m cut, using 1 m squares and 10 cm levels, and taken one level into the red clay. Three Palmer points, two of quartz and one of coastal plain chert, were found in the block area, together with several flake tools (Figure 19:i-k). Most of the debitage was of quartz, with small retouch flakes the most common category. Nine small, somewhat amorphous stains of unknown origin and function and a small scatter of fire cracked rock were also found. While the cracked rock may be from a dispersed hearth, no well defined features were observed. Fairly limited site use is indicated, with the presence of mostly small flakes indicating activities focused on toolkit maintenance rather than initial manufacture.

THE EARLY ARCHAIC IN THE UPPER SAVANNAH RIVER VALLEY IN LIGHT OF THE RUSSELL RESERVOIR INVESTIGATIONS

Analyses to date of PaleoIndian and Early Archaic assemblages in the Savannah River area, including within the Russell Reservoir, document a general trend over time toward expedient technologies and foraging adaptive strategies. Following the models discussed previously, it is likely that the PaleoIndian and Early Archaic assemblages that were documented in the reservoir represent different types of short-term camps or residential locations. Small uncomplicated assemblages, really little beyond isolated finds, characterize the PaleoIndian components that were found, and from these data it is difficult to argue for either large populations or extended settlement locally. Several times as many sites, and larger, more diversified assemblages were found dating to the Early Archaic period, although again there was little evidence for extended occupation (i.e., seasonal or year-round camps) at these locations.

Analyses of excavated assemblages from the Savannah and Oconee drainages indicate that base camps, foraging camps, and special-purpose resource extraction camps were present within local PaleoIndian and Early Archaic settlement systems (O'Steen et al. 1986; Anderson and Hanson 1988). While these findings are in line with expectations of current models, further details about matters such as season and duration of site use, specific activities undertaken, or the size of the resident groups must await larger excavations, the recovery of preserved floral and faunal remains (or other seasonal indicators), and the

continued development of analytical strategies and theoretical models.

Riverine extensive, or at least geographically wide-ranging adaptations are indicated by analyses of hafted bifaces from collections along local drainages and across the region (Anderson and Schuldenrein 1983a; Anderson and Hanson 1988; Sassaman et al. 1988). Lithic raw materials used to manufacture hafted bifaces, artifacts readily identified to period, occur at distances of up to 300 kilometers from their source area at some sites. A gradual, rather than a dramatic or step-like fall-off in the occurrence of lithic raw materials occurs, suggesting minimal social boundaries. Extralocal raw material use appears greatest along rather than across drainages, furthermore, based on analyses of diagnostic artifacts from riverine and interriverine contexts (Anderson and Schuldenrein 1983a:201), suggesting that most group activities (except for possibly seasonal or annual aggregation events) occurred within individual drainages. Finally, evidence for raw material or finished artifact exchange is completely lacking. The assemblages recovered to date, even at quarry sites, suggest routine tool kit maintenance, discard, and replenishment ("gearing-up") activity, rather than production for exchange.

The high incidence of extralocal raw materials on Early Archaic artifacts observed on sites over the region is what might be expected if low numbers of people were moving rapidly over the landscape. The almost exclusive use of local raw materials characteristic of succeeding Middle Archaic populations in the South Atlantic area (Sassaman 1983, 1985a; Anderson and Schuldenrein 1985:317; Blanton and Sassaman 1988), in contrast, probably reflects increasing regional population densities and a corresponding decrease in annual range, including the distance traveled to procure lithic raw materials (Ford 1974; Stoltman 1978; Brose 1979; Smith 1986:18-25). If raw material distributions are indeed an accurate indicator of regional settlement dynamics, a time-transgressive decrease in the use of extralocal raw materials should be evident over the course of the Early Archaic, as population increased and mobility decreased. This is precisely what is observed in the archaeological record from the region (Anderson 1979a, 1979b; Goodyear et al. 1979; Claggett and Cable 1982; Blanton 1983; Sassaman 1983; Anderson and Schuldenrein 1985), and from the Russell Reservoir sample itself (Table 2). In particular, the incidence of extralocal lithic raw materials (measured using coastal plain and ridge and valley cherts) declines from 26.3 percent of all Palmer/Kirk corner notched points in the initial Early Archaic, to 23.5 percent of the terminal Early Archaic bifurcates, to less than 1 percent of the Middle Archaic Morrow Mountain forms.

Evidence for Population Increase

Evidence for a major population increase from the PaleoIndian into the Early Archaic is also indicated in the Russell Reservoir assemblages. The incidence of diagnostic projectile points found on reservoir sites indicates a regular pattern of increase in the occurrence of these tools from the earlier PaleoIndian period (measured by counting the number of fluted points found in the reservoir) to the

later PaleoIndian (Dalton points), to the initial Early Archaic (Palmer and Kirk points) (Table 2, Figure 3). This observation is supported by comparable analyses employing materials from three differing localities in the Georgia/South Carolina area, in the Wallace Reservoir of north-central Georgia (O'Steen 1983; O'Steen et al. 1986), on the Savannah River Plant in the inner coastal plain of South Carolina (Hanson et al. 1978, 1981), and at the Feronia locality in south-central Georgia (Blanton and Snow 1986). Taken together, these data suggest a major increase in regional population, or at least in the use of projectile points, over this interval (Anderson et al. 1986a).

Particularly sharp increases in the total numbers of observed diagnostics are evident between the Early and Late PaleoIndian and again between the Late PaleoIndian and the Early Archaic (Table 2; Figure 3). This may reflect changing technologies as well as population growth. Dalton and later Early Archaic hafted bifaces appear to have seen extensive use as multipurpose tools, for example, more so than earlier fluted and unfluted lanceolate forms in the region (Ahler 1971; Goodyear 1974). The observed pattern of increase does not appear to be an artifact of the length of time over which these tools were manufactured. To control for the differing lengths of time represented by these periods, the data were standardized by examining the number of diagnostics per 100 year interval. A similar although less marked pattern of increase was still noted (Figure 3). If the Russell projectile point data do reflect regional population levels, it suggests that major population growth was occurring over this interval, and that considerable landscape filling had apparently occurred by the start of the Early Archaic period.

The Early/Middle Archaic Transition

The transition between the Early and Middle Archaic periods is not well understood in the South Atlantic area. Bifurcate projectile points, thought to be diagnostic indicators of terminal Early Archaic components, were comparatively rare in the Russell assemblages, suggesting a decline in population had occurred (Figure 3). A replacement of side and corner notched forms by stemmed points and bifurcates has been documented in piedmont North Carolina and in the Little Tennessee River Valley, (Coe 1964; Chapman 1985), and a comparable sequence was evident in the Russell Lake area. The rarity of bifurcate point forms locally, however, calls into question their utility as a primary indicator of terminal Early Archaic occupations.

Bifurcates are common in the piedmont of North Carolina and eastern South Carolina (Chapman 1975; Steen 1985), but are decidedly uncommon in the piedmont of western South Carolina and eastern Georgia (DePratter 1975:13; House and Ballenger 1976:68; Taylor and Smith 1978:320; Anderson et al. 1979:88; Goodyear et al. 1979:107; Cable 1982b:433-434; O'Steen 1983; Gardner 1984:34). A co-occurrence of Kirk-like and bifurcate forms has been indicated at some sites in the little Tennessee River Valley:

> Based on data from the stratified Rose Island, Icehouse Bottom, Howard, Calloway Island, and Citico sites, it is certain that Kirk Stemmed occurs after the Kanawha Stemmed and before the Stanly Stemmed types. ...It is unfortunate that the prefix Kirk was assigned to the type name of this stemmed point since evidence now suggests that Kirk Stemmed is separated from Kirk Corner notched types by 700 - 1000 years (Chapman 1979:32-33).

A comparable pattern has been observed in Maryland (Vitelli 1975; Wesler 1983:22; Tippitt and Marquardt 1984:3-6).

It is possible that Kirk forms continued to be used in areas such as the upper Savannah River where bifurcates were rare or absent. Given the infrequent occurrence of bifurcates and Kirk Stemmed forms locally, and the absence of other recognizable diagnostics, a continuation of the Kirk Corner Notched type to perhaps ca. 8000 B.P. is therefore inferred (Figure 2). The occasional bifurcates found in the central piedmont along the Savannah, in this view, probably represent sporadic or low-level interaction or visitation from populations based elsewhere, such as in the eastern South Carolina/western North Carolina piedmont, or in the ridge and valley province. The distributions of these various Early Archaic/initial Middle Archaic point types, it is further suggested, reflect major cultural as well as stylistic boundaries during this period.

Alternate explanations for the low incidence of bifurcates in the upper Savannah are that the area was depopulated for unknown ecological or social reasons, or that sites with these points have simply not been recognized. Given the level of paleoenvironmental and archaeological investigation conducted to date over the region, and particularly in areas like the Wallace and Russell Reservoirs, where few bifurcates were found, these explanations are considered unlikely. This problem is examined further in the ensuing discussion on the Middle Archaic assemblages from the Russell area.