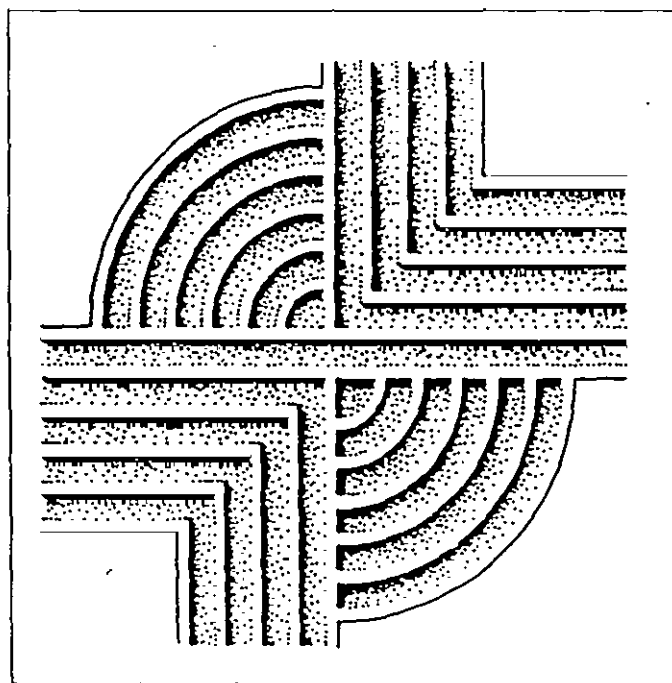


INTENSIVE ARCHAEOLOGICAL SURVEY OF THE
PROPOSED BLAKELY MINE FOR
W.R. GRACE & CO.,
LAURENS COUNTY, SOUTH CAROLINA



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LAURENS COUNTY, SOUTH CAROLINA

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ABSTRACT

This study reports on an intensive archaeological survey of a proposed mine site on the northeast edge of the City of Laurens, in the northeastern quadrant of Laurens County. The project, known as the Blakely Mine, is just north of the intersection of SC 49 and Le Cary Road. It is situated in a pasture area, encompassing the northern two-thirds of the property and covering a total of approximately 20 acres. The survey was limited to this area of immediate and primary impact.

Examination of the site files at the South Carolina Institute of Archaeology and Anthropology revealed that no archaeological sites were recorded in the project area. An inquiry made to the South Carolina Department of Archives and History for any previous architectural surveys or the presence of any National Register properties, sites, districts, or objects. None were recorded in the project vicinity.

The proposed mine site was investigated using shovel tests at 100 foot intervals, in spite of immediate evidence of extensive erosion and nearby agricultural terracing. All shovel tests were screened through ¼-inch mesh. This area was found to be heavily eroded, with clay subsoil found on the surface to a maximum

depth of 1.0 foot below the surface. Twelve transects, with a total of 90 shovel tests, were examined during the study. Most of the proposed mine is in pasture, although the northeast corner has been clear cut of timber.

The shovel tests failed to identify any archaeological remains, although a scatter of early twentieth century materials, including ceramics and glass artifacts were identified in the clear cut area. These appear to represent the remains of two mid-twentieth century dwellings, possibly tenant houses. The materials were assigned the site number 38LU444. The site, however, does not appear able to address significant research questions and also lacks clear integrity. Consequently, it is recommended as not eligible for inclusion on the National Register of Historic Places and no further management activities are recommended.

As always, it is possible that unrecognized archaeological remains may be identified during construction. If so, the contractor should suspend work and notify either Chicora or the State Historic Preservation Office.

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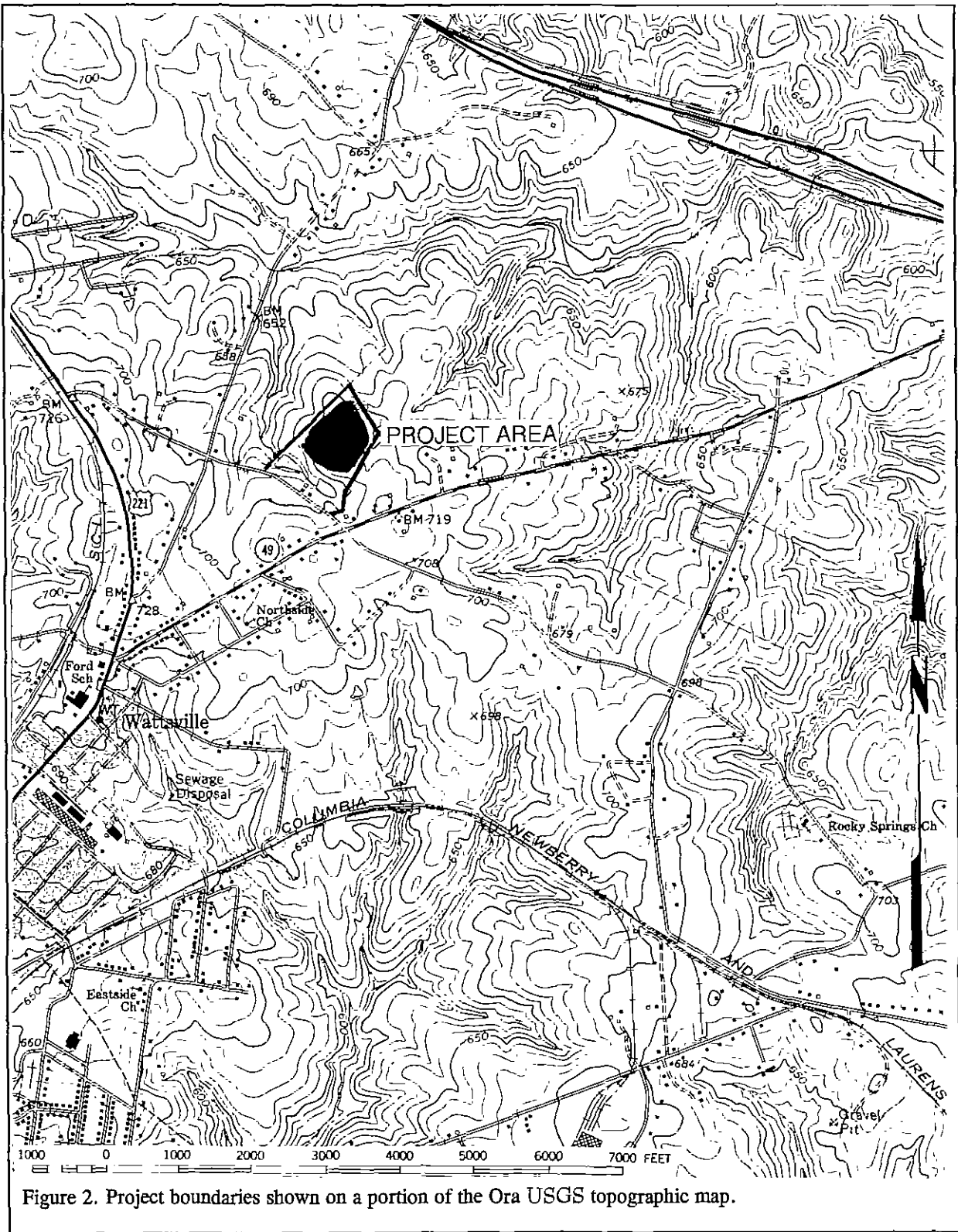


Figure 2. Project boundaries shown on a portion of the Ora USGS topographic map.

INTRODUCTION



Figure 3. View of the mine area looking north.

the study area. On April 4 he reported that there were no National Register properties in the corridor. In addition, there were architectural sites recorded for the project area. Archival and historical research was limited to a review of secondary sources available in the Chicora Foundation files.

The survey, which was designed to identify prehistoric or historic resources which may be within the project corridor or on the proposed treatment plant, was conducted Monday, January 25, 1999 by Mr. Todd Hejlik. A total of 7.5 person hours were required for this study. Cataloging was conducted at Chicora's laboratories in Columbia on January 27 and the report was prepared by Dr. Michael Trinkley and Mr. Todd Hejlik on January 29, 1999.

ARCHAEOLOGICAL SURVEY OF THE PROPOSED BLAKELY MINE, LAURENS COUNTY

NATURAL ENVIRONMENT

Physiographic Province

The project area is situated in the northeastern quadrant of Laurens County on the northern edge of a substantial ridge top overlooking a small, unnamed drainage to the north and west. Today this drainage has been impounded to create two small ponds on the western edge of the project area (Figure 2).

Laurens County is in the northwest-central portion of South Carolina and is bounded to the north by Spartanburg County, to the northeast by Union County, to the southeast by Newberry County, to the southwest by Greenwood and Abbeville counties, and to the northwest by Greenville County. The Enoree River forms the county's northeastern boundary, while the Saluda flows along its southwestern boarder.

Laurens falls within the Piedmont Physiographic Province. The general slope of the terrain is eastward, which is the general direction of the major drainages within the County (Camp et al. 1975). The land ranges from level to steep, but most areas are gently sloping to moderately steep. Physiographically, the county is a thoroughly dissected plain. In the project area elevations range from about 570 feet above mean sea level (AMSL) to about 720 feet AMSL. The proposed mine is situated on a ridge top, with the ground falling away on all sides, although it is most clearly defined to the southwest, where the ground slopes to the previously mentioned drainage.

The drainages in the county form a dendritic pattern and throughout the Piedmont this terrain has been extensively dissected and degraded. The City of Laurens is situated primarily in the Little River drainage, although the survey tract is actually on the edge of the nearby Duncan Creek drainage. Numerous smaller streams (such as those which are found along the southern and western edge of the parcel) are found throughout the county.

Geology and Soils

Most of the rocks of the Piedmont are gneiss and schist, with some marble and quartzite (Hasselton 1974). Some less intensively metamorphosed rocks, such as slate, occur along the eastern part of the province from southern Virginia into Georgia. This area, called the Slate Belt, is characterized by slightly lower ground with wider river valleys. Consequently, the Slate Belt has been favored for reservoir sites (Johnson 1970), as well as prehistoric occupation (see Coe 1964). In Laurens County the underlying geology consists primarily of granite, gneiss, schist, and gabbro, and the soils of the region are primarily derived from the weathering of these rocks. The only major exception is that the soils of the river floodplains formed in sediment that washed from the uplands of the Piedmont province.

The project area is primarily situated on Cecil sandy loams, characterized by slopes of 2 to 6% (Camp et al. 1975:Map 56). Nearby are soils of the Appling series, as well as Cecil soils on much steeper slopes (up to about 10%).

The 1973 aerial photographs also reveal that most of the proposed mine site was in pasture, although the portion which is today clear cut is shown in dense woods. The two ponds had been constructed by this time and the nearby barn is clearly shown in the photographs.

Cecil soils are characterized as having an Ap horizon of up to 0.4 foot. Recently formed, this horizon consists of brown (10YR5/3) sandy loam and overlies the B1t horizon of yellowish-red (5YR5/8) sandy clay or sandy clay loam. This horizon is up to 0.6 foot in depth and, in turn, is on a B21t horizon of red (2.5YR4/8) clay (Camp et al. 1975:12). Camp notes that such lands are often successfully cultivated, except where the subsoil is exposed. The more steeply sloped areas, as one might imagine, are more prone to erosion and have, historically, suffered exceptional losses.

There are, in fact, a few areas on the survey tract where a shallow A horizon is beginning to form. Most of the shovel tests, however, revealed either the B1t, or more often, the B21t horizon directly on the surface. This provides a clear indication of extensive previous erosion.

In fact, the 1934 South Carolina Erosion Survey by M.W. Lowry found that this portion of Laurens County exhibited moderate sheet erosion with occasional gullies (Lowry 1934). This portion of Laurens County has lost up to 0.6 foot of soil through erosion in the nineteenth and early twentieth centuries (Trimble 1974:3). It is part of the area classified by Trimble as having high antebellum erosion land use with postbellum continuation and belonging to his Region III — the Cotton Plantation Area (Trimble 1974:15).

Within recent times this area has been logged, likely increasing soil loss originating during earlier agricultural activities. The United States Forest Service has determined that logging accounts for upwards of 0.36 tons of soil erosion per acre per year in this region, while areas of skid trails have erosion rates of about 9.91 tons per acre per year (U.S. Department of Agriculture 1980:25). This is clearly evidenced in the shovel testing program conducted in the project area (discussed in a following section of this study).

In 1826 Robert Mills remarked that the soils were primarily "clay and gravel." While they were "well adapted to the culture of cotton, corn, wheat, tobacco, &c," he bemoaned that "some little attention is paid to agriculture in the management of lands; but while cotton commands so good a price, we may despair of much progress in this valuable system" (Mills 1972:73). This was repeated for adjacent Newberry District, where he noted that:

The lands are too much neglected; no system of manuring them when they begin to fail is pursued. The practice has been to turn them out; the consequence of which is, that they are washed into gullies and destroyed (Mills 1972: 653).

Fairfield planter William Ellison remarked in 1828 that "the successful cotton planter sits down in the choicest of his lands, slaughters the forest, and murders the soil" (quoted in Ford 1988:38). In 1842 agricultural reformer Edmund Ruffin warned of impending disaster from the reliance on cotton and observed that little effort was being made to protect the land (Ruffin 1843:73).

In spite of these early warnings, the South Carolina Department of Agriculture, Commerce, and Immigration, as late as 1907, found no reason to remark on the threat of erosion, noting only that "the second best cotton lands are found in [nearby] Anderson and Laurens Counties" (State Department of Agriculture, Commerce, and Immigration 1907:255). Laurens itself boasted of six cotton seed oil mills and ranked sixth in cotton production in 1904, increasing to fifth in 1906 (State Department of Agriculture, Commerce, and Immigration 1907:269, 288).

Climate

Elevation, latitude, and distance from the coast work together to affect the climate of South Carolina, including the Piedmont. In addition, the more westerly mountains block or moderate many of the cold air masses that flow across the state from west to east. Even the very cold air masses which cross the mountains are warmed somewhat by compression before they descend on the Piedmont.

Consequently, the climate of Laurens County is temperate. The winters are relatively mild and the summers warm and humid. Rainfall in the amount of 44 to 48 inches is adequate, although less than in some neighboring counties. About 24 to 28 inches of rain occur during the growing season, with periods of drought not uncommon during the summer months. As Hilliard illustrates, these droughts tended to be localized and tended to occur several years in a row, increasing the hardship on those attempting to recover from the previous year's crop failure (Hilliard 1984:16). Perhaps the best wide-scale example of this was the drought of 1845, which caused a series of very serious grain and food shortages throughout the state.

The average growing season is about 192 days,



Figure 4. Clear cut area at edge of survey tract, view to the north.

although early freezes in the fall and late frosts in the spring can reduce this period by as much as 20 or more days (Landers 1975:63). Consequently, most cotton planting, for example, did not take place until early May, avoiding the possibility that a late frost would damage the young seedlings.

Floristics

Piedmont forests generally belong to the Oak-Hickory Formation as established by Braun (1950). The potential natural vegetation of the area is the Oak-Hickory-Pine forest, composed of medium tall to tall forests of broadleaf deciduous and needleleaf evergreen trees (Küchler 1964). The major components of this ecosystem include hickory, shortleaf pine, loblolly pine, white oak, and post oak. In actuality, the Piedmont is composed of a patchwork of open fields, pine woodlots, hardwood stands, mixed stands, and second growth fields. Shelford (1963) includes the Carolina Piedmont in the Oak-Hickory zone of the Southern Temperate

Deciduous Forest Biome.

Today the "patchwork" is more than ever clearly visible. Any transect through the immediate area is likely to grassed yards, barren soil at lake or stream edges, recently logged stands, logged areas where hardwoods have been left, and logged areas with second growth pine. There is virtually no vegetation in the project area that is consistent with the native forests of the area. In the immediate project area vegetation is limited to the pasturage. A stand of pine woods at the edge of the tract (and partially within the survey tract) have been recently clear cut (Figure 4).

ARCHAEOLOGICAL SURVEY OF THE PROPOSED BLAKELY MINE, LAURENS COUNTY

PREHISTORIC AND HISTORIC OVERVIEW

Previous Research

The Piedmont has been the focus of considerable archaeological research. Derting et al. (1991), for example, cite 59 studies specific to Laurens County. Virtually all of these are compliance related, with 38% being surveys or similar studies produced by the U.S. Forest Service on their Sumter National Forest lands. Even more common are those studies produced by the South Carolina Department of Highways, with their surveys accounting for an additional 48% of the pre-1991 literature for the county.

There is no single synthesis of the area's archaeology. An overview of the Sumter National Forest was prepared by Patricia Logan nearly two decades ago, but has not been published (Logan n.d.). Other researchers, however, have provided considerable information on the region. In particular, the Paleocindian and Early Archaic is carefully explored by a variety of authors in an edited volume by Anderson and Sassaman (1996). These same researchers have also explored the Middle and Late Archaic (Sassaman and Anderson 1994). The Woodland and Mississippian is less well researched for the Piedmont, although Anderson (1994) does provide a generalized overview.

Dr. Tracy Power of the South Carolina Department of Archives and History (personal communication 1997) reports that there are no National Register buildings, districts, structures, sites, or objects in the survey area. In addition, no archaeological sites are recorded at the South Carolina Institute of Archaeology and Anthropology for the general area of this study.

Prehistoric Overview

In the Carolina Piedmont, lithic scatters are the most common type of prehistoric site encountered. Goodyear et al. (1979:131-145) found that lithic

scatter sites located in the inter-riverine Piedmont were geographically extensive and exhibited little artifact diversity. These sites have been interpreted as:

limited or specialized activity sites which represent resource exploitation or other distinct functions. Nearly all investigators working in the Piedmont have related these sites to activities involving hunting, nut gathering, and procuring of lithic raw materials (Canouts and Goodyear n.d.:8).

Although the vast majority of these sites are located in eroded areas and exhibit little to no subsurface integrity, Canouts and Goodyear (1985) argue that they have analytical value. This value lies in their horizontal rather than vertical dimensions. They argue that:

[f]uture investigators of upland sites must effect broad-scale spatial analyses comparable to the temporal analyses effected through excavation of deeply stratified sites. Both endeavors are necessary, and neither is sufficient for the total understanding of Piedmont prehistory" (Canouts and Goodyear 1985: 193).

One observation that Canouts and Goodyear (1985) made is that lithic raw material ratios change through time. For instance, at the Gregg Shoals site in Elbert County, Georgia, the Early Archaic assemblage reflects greater use of non-local cryptocrystalline materials and the Late Archaic, greater use of non-quartz local material (see Tippitt and Marquardt 1981). Examination of changing use of lithic resources will help archaeologists better understand issues such as the extent of seasonal rounds, trade networks, and social organization. Clearly, the discussions by Canouts and

Goodyear (1985) argue strongly for a higher regard for the "lowly" lithic scatter — a very common occurrence in the Piedmont.

Figure 5 provides an overview of the cultural sequence commonly found in the Piedmont of South Carolina.

Paleoindian Period

The Paleoindian period, lasting from 12,000 to 8,000 B.C., is evidenced by basally thinned, side-notched projectile points; fluted, lanceolate projectile points; side scrapers; end scrapers; and drills (Coe 1964; Michie 1977). The Paleoindian occupation, while widespread, does not appear to have been intensive. Points usually associated with this period include the Clovis and several variants, Suwannee, Simpson, and Dalton (Goodyear et al. 1989:36-38).

Unfortunately, little is known about Paleoindian subsistence strategies, settlement systems, or social organization. Generally, archaeologists agree that the Paleoindian groups were at a band level of society, were nomadic, and were both hunters and foragers. While population density, based on the isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

Very little work in the state has been able to focus on Paleoindian settlements because of the rarity of the site type. No evidence was found for Paleoindian occupation in the Laurens-Anderson inter-riverine area, which is not surprising since elsewhere in the state these sites are usually found clustered along major drainages and their tributaries which is interpreted by Michie (1977:124) to support the concept of an economy "oriented towards the exploitation of now extinct megafauna."

One site identified in the Sumter National Forest (Price 1992), in neighboring Laurens County, is believed to have a possible Paleoindian component (38LU317). It is situated on a ridge saddle adjacent to

a spring which feeds into the Enoree River, located only about 0.3 miles to the north. This fits well with previous arguments that Paleoindian sites will be located adjacent to major drainages.

Anderson (1992:32) suggests that the comparatively low density of Paleoindian diagnostics in South Carolina may be because the state could have been on the edge of the ranges of groups centered in other areas. He suggests that permanent settlements elsewhere probably occurred later in the Paleoindian period, only when population levels had grown appreciably in these centers. This would help to explain the overlap in stylistic traditions (such as the Clovis, Suwannee, Simpson, and Dalton) observed in South Carolina which perhaps resulted from populations expanding outward from these centers.

Archaic Period

The Archaic period, which dates from 8000 to as late as 500 B.C. in the Piedmont, does not form a sharp break with the Paleoindian period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. Archaic period assemblages, characterized by corner-notched, side-notched, and broad stemmed projectile points, are common in the vicinity, although they rarely are found in good, well-preserved contexts (for a thorough discussion of the Early Archaic, see Anderson and Sassaman 1996, while Anderson and Joseph 1988 offer a review of prehistoric archaeology along the upper Savannah River).

Prehistoric sites in the Piedmont inter-riverine zones are for the most part characterized as "upland lithic scatters" (House and Wogaman 1978:xii). These sites are shallow deposits without stratigraphic definition, contain a diversity of artifacts, and are commonly disturbed by plowing and/or erosion (Canouts and Goodyear 1985; Trinkley and Caballero 1983:27).

Early Archaic

During the Laurens-Anderson study (Goodyear et al. 1979), four sites with Early Archaic components were identified. Each of these sites contained a single

PREHISTORIC AND HISTORIC OVERVIEW

Dates	Period	Sub-Period	Regional Phases		
			COASTAL	MIDDLE SAVANNAH VALLEY	CENTRAL CAROLINA PIEDMONT
1715	HIST.	EARLY	Altamaha		Caraway
1650		LATE	Irene / Pee Dee	Rembert Hollywood	
1100	MISS.	EARLY	Savannah	Lawton Savannah	Dan River Pee Dee
800		LATE	St. Catherines / Swift Creek		Uwharrie
A.D.	WOODLAND	MIDDLE	Wilmington Deptford	Sand Tempered Wilmington? Deptford	Yadkin
B.C.		EARLY		Refuge	Badin
1000		LATE		Thom's Creek Stallings Savannah River Halifax	
2000	ARCHAIC	MIDDLE		Guilford Morrow Mountain Stanly	
3000		EARLY		Kirk Palmer Hardaway	
5000	PALEOINDIAN			Hardaway - Dalton	
8000			Cumberland	Clovis	Simpson
10,000					
12,000					

Figure 5. Generalized cultural periods for South Carolina.

example of Dalton¹ points or probable Dalton preforms made of indigenous Piedmont quartz. The following Palmer phase was found to be very common in the area and was represented by 28 sites. While most of the specimens were manufactured from the local quartz, some were manufactured from Coastal Plain chert from the Flint River formation located in the lower coastal plain of South Carolina and Georgia. There were also examples of metavolcanic rhyolite from the Carolina Slate Belt and what may be "Ridge and Valley chert" from eastern Tennessee.

At these sites a wide range of tool types were identified including a large number of unifacial and flake tools believed to be associated with the Early Archaic occupation. Goodyear et al. (1979:197) found that while Early Archaic sites with unifaces were found throughout the corridor, sites on ridgetops which were large watershed divides produced higher counts. They believe that the large number of sites producing Palmer points is related to environmental changes at that time. The large diversity in lithic raw material provided information regarding their "mobility patterns and regions of interactions" (Goodyear et al. 1979:198).

Anderson and Hanson's (1988) band/macrobanded model of Early Archaic settlement was formulated primarily to evaluate data from the Savannah River basin. In the Savannah River Valley, settlement organization of the Early Archaic people was "characterized by the use of a logistically provisioned seasonal base camp or camps during the winter, and a series of short-term foraging camps throughout the remainder of the year" (Anderson 1992:36). During the early spring, the groups are believed to have moved toward the coast, then back into the upper coastal plain and piedmont during the later spring, summer, and early fall. During the winter they returned to their base camp incorporating some side trips to other drainages for aggregation events by groups from two or more different drainages. These aggregation sites are believed to have been located on Fall Line river terraces (Anderson 1989a:36). One example of a postulated

base camp is the G.S. Lewis site at the Savannah River Site. This site is located on a ridge adjacent to the confluence of Upper Three Runs Creek and the Savannah River. Given this scenario for the Savannah River basin (which likely applies to other river basins), Early Archaic sites in the Piedmont were likely occupied from summer until fall and don't include aggregation sites. Anderson and Hanson (1988) place the Upper Piedmont in the Saluda/Broad macroband settlement system. At the band level, they proposed "co-residential population aggregates" consisting of 50 to 150 people which occupied and moved primarily within one drainage basin. They projected that individual macroband population was between 500 and 1500 people. They also formulated a spatial model for the distribution of individual bands over the South Atlantic Slope.

Anderson (1989b) notes that data from the Savannah River Site and the Richard B. Russell Reservoir "suggest that a decline in utilization of the Coastal Plain may have occurred at the same time as an increase in utilization of the Piedmont [and] may be a part of a trend noted in the terminal Early Archaic in the general region. Settlement patterning in any given area was thus likely shaped by a range of variables, such as local resource structure, as well as by more regional trends in climate, population density, and these patterns apparently changed appreciably over time" (Anderson 1992:39). Data from the Laurens-Anderson study and the Savannah River project suggests that inter-riverine sites will be found on hills between watershed divides and riverine sites will be located on knolls adjacent to a major confluence.

Middle Archaic

Morrow Mountain and Guilford points constituted the primary evidence for Middle Archaic (5000 to 3000 B.C.) occupation in the Laurens-Anderson corridor (Goodyear et al. 1979). Morrow Mountain constituted the vast bulk of these projectile points and were present in both the I and II varieties.²

¹ Some researchers (see, for instance, Anderson 1992) classify Dalton as Paleoindian while others (Goodyear et al. 1989) classify it as Archaic.

² Cope (1964) describes Morrow Mountain I as a small triangular blade with a short pointed stem, while the Morrow Mountain II is described as a long narrow blade with

Over 95% of the 145 points were manufactured from the local quartz, which parallels other findings in Piedmont South Carolina. Guilford was not nearly as prominent and consisted of 35 finished specimens or preforms, all of which were manufactured from quartz.³

The Middle Archaic period was found to consist of the largest number of sites. In terms of geographic distribution, Goodyear et al. (1979) found that the Morrow Mountain phase was much like the Palmer phase, with sites occurring on ridges between watersheds. However, the almost complete reliance on local quartz separates the Morrow Mountain and Guilford phase sharply from the earlier Palmer phase. They suggest that "[t]he large number of Middle Archaic sites well dispersed through the inter-riverine areas and the abundant nature of chipped quartz remains on these sites suggest frequent movement and activity throughout the Piedmont of South Carolina" (Goodyear et al. 1979:207). Data from early reservoir projects (see, for example, Wauchope 1966) as well as inter-riverine observations by Caldwell (1954; 1958) and Coe (1952) made it clear that there were sharp contrasts between riverine and inter-riverine sites in terms of artifact diversity and density, and in the use of shellfish (Sassaman and Anderson 1994:134). With the advent of cultural resource management in the 1970s, additional data was available and further emphasized these differences. All of this data indicated that the largest and densest sites were located along large rivers, and that small, sparse sites were found throughout the uplands. While these differences were clear, what remained unclear was the relationship between riverine and inter-riverine sites in a settlement-

a long tapered stem. While he describes them as different types, he notes that many people have chosen not distinguish between the two.

³ Preforms represent an intermediate stage between flakes from secondary cores and quarry blades. Some are worked bifacially, although most are unifacial and still retain the platform and bulb of percussion. Quarry blades are usually bifacially worked and are made to allow easy transportation of lithic materials until the time it is needed to be made into a projectile point. Some researchers have used the terms preform and quarry blade interchangeably, meaning the bifacially worked ovate blade.

subsistence system, and how, if at all, this system changed over time (Sassaman and Anderson 1994:135).

House and Ballenger studied this issue during their survey work on the proposed Interstate 77 project in 1976. They classified riverine zones of containing only the largest rivers while inter-riverine zones consisted of smaller rivers and streams. House and Ballenger (1976) argued that streams with a ranking of 3 or higher⁴ contained resources that were not abundant in the uplands (fish, turtle, raccoon, etc.), whereas smaller streams had a higher density of deer and nut masts. The resulting archaeological assemblages from these distinct areas should, themselves, be distinct (House and Ballenger 1976; Sassaman and Anderson 1994). They divided their sites into habitation and extraction sites⁵ using a lithic tool classification scheme that would allow functional sorting of the two site types. From the information gathered using this analysis, coupled with data on the seasonal availability of resources, they created a Middle and Late Archaic settlement model:

involving spring and summer residence along major rivers; a move to seasonal base camps in upland creek valleys in September to take advantage of deer concentration in upland hardwood zones, with some exploitation of other resources as well; and then a return to riverine-

⁴ According to the system, based on Strahler (1964) 1st order streams are the fingertip tributaries at the head of a stream and may either be year-round or seasonally flowing streams. A 2nd order stream is formed by the confluence of two 1st order streams. A 3rd order stream is formed by the confluence of two 2nd order streams, etc. This system requires that at least two streams of a given order be joined to form a stream of the next highest order. The main stem of a river will always have the highest order.

⁵ An extraction site is an area where resources (such as fish, lithic raw material, etc.) were obtained and is often represented by lithic debitage and perhaps small camp sites. A habitation site is a seasonal or temporary camp where these resources were usually consumed, used, or worked.

located winter quarters with permanent houses in about December when the coldest months arrived, the deer rutting season came to an end, and the acorn mast in the hardwood forests began to be exhausted (House and Ballenger 1976:117).

The Windy Ridge site (House and Wogaman 1978), while fitting the expected upland site profile as proposed by House and Ballenger (1976), may have been used as a habitation site during the Middle Archaic. Other projects also complicated the model. Work in the Richard B. Russell Reservoir (Anderson and Schuldenrein 1985; Tippett and Marquardt 1981) examined a number of sites with Morrow Mountain components. Interestingly, none of these riverine sites produced denser or more diverse remains than did inter-riverine sites. This suggested that Middle Archaic people were not using the riverine and inter-riverine areas much differently in this part of the state (Sassaman and Anderson 1994:137).

Sassaman (1983) attempted to more closely examine Middle and Late Archaic settlement patterns by examining sites from a number of piedmont studies. He found that Middle Archaic settlement in the South Carolina Piedmont did not fit the riverine-inter-riverine model. This suggested that Middle Archaic people were much more mobile, perhaps moving residences every few weeks which fit Binford's (1980) definition of a foraging society. Binford (1980) proposed that foragers had high levels of residential mobility, moving camps often to take advantage of dispersed, but similar resource patches. Collectors stayed in one location longer, by sending out specialized work parties to exploit resources in widely dispersed and distinct resource patches. He believed that differences in environmental structure could be traced to large scale climactic factors. He further noted that a collector system could arise under any conditions that limited the ability of hunter-gatherers to relocate residences. During his work in the Haw River area of North Carolina, Cable (1982) argued that postglacial warming at the end of the Pleistocene led to increased vegetational homogeneity which

encouraged foraging.⁶

Sassaman (1983) suggests that this indicates a large degree of homogeneity of the piedmont environments. They also had a high degree of social flexibility, allowing them to pick up and move when needed. This high level of mobility did not allow them to transport much material, which in turn, alleviated the need for elaborate or specialized tools to procure and process resources at locations distant from camp. Since quartz is practically everywhere in the piedmont, tools could be easily replaced and were expedient. The high mobility and the expediency of tools helps to explain the abundance of Middle Archaic sites in the piedmont without having to imply a population explosion. Sassaman called this model the "Adaptive Flexibility" model (Sassaman 1983; Sassaman and Anderson 1994).

Late Archaic

Savannah River Stemmed and Otarre⁷ stemmed points are the primary indicators of Late Archaic settlement in the Laurens-Anderson study area. Ten Savannah River phase sites and seven Otarre phase sites were identified. Quartz tools, which were found in overwhelming abundance at earlier sites, consisted only of about 57% of the Savannah River assemblage. Other materials included "silicates, volcanic slate/argillite, and unknown igneous/metamorphic" (Goodyear et al. 1979:207). The Otarre assemblage reflected a trend away from igneous/metamorphic rock, with a concentration of quartz and siliceous materials. The incorporation of more types of lithic raw material as well as the fact that Late Archaic diagnostics are much fewer than Middle Archaic diagnostic artifacts indicates a sharp decrease in residential mobility.

⁶ Since the vegetation was homogeneous and there were no concentrations of resources people moved from place to place foraging rather than settling near or in these resource concentrations.

⁷ According to Oliver (1981) the Otarre type is contemporaneous with the Savannah River stemmed type and fall within the category of "Small Savannah River Stemmed".

Many of these Late Archaic sites produced fire cracked rock which was found on major ridges between watersheds. Goodyear et al. (1979:209-210) found that the inter-riverine picture of the Late Archaic contrasted quite sharply with river sites. Artifacts at riverine sites were diverse and included steatite vessels and netsinkers⁸, ground stone axes, rock mortars and handstones, atlatl weights, and chipped stone drills. In the upland sites, the assemblage consists almost entirely of chipped stone bifaces and debitage. Purrington (1983) also noted this trend for the mountain region of North Carolina. At the Savannah River Plant, both riverine and upland sites contained a full range of tools, but no architectural features have been located.

Soapstone became an important lithic resource in the Late Archaic period for manufacturing of cooking vessels, and a number of soapstone quarries have been identified in Spartanburg and Cherokee counties (Ferguson 1976). Unfortunately, little is known about patterns in local soapstone use, although Elliott (1981) argues that soapstone exchange in the upcountry was facilitated by local reciprocal relationships. Soapstone was also probably used as a mechanism to maintain long distance relationships through long distance trade. Sassaman et al. state that:

[c]ompared to sites in the upper and lower reaches of the Coastal Plain, a higher proportion of sites in the middle portion of the plain contain soapstone artifacts. This may indicate that soapstone distributions were not merely the result of distance-decay from sources, but were much more dependent on the social composition of exchange alliances (Sassaman et al. 1988:90).

For the Late Archaic, John White (1982) also

applied a riverine/inter-riverine dichotomy. He demonstrated that riverine sites were much more dense and diverse than inter-riverine sites, but also identified the existence of diverse and sometimes dense assemblages at upland sites. He argued that they were habitation camps during periods of seasonal dispersal from riverine aggregation bases.

Although Steven Savage (1989) has proposed a "Late Archaic Landscape" model, a number of researchers (i.e. Anderson 1989a; Cable 1994; and Rafferty 1992) have noted that his study was seriously flawed by the "misappropriation of data from the Richard B. Russell survey" (Sassaman and Anderson 1994:142). The purpose of the work was to attempt to apply the locational methods of GIS to the analysis of Late Archaic social systems in the Upper Savannah River Valley. However, he only chose to use early intensive survey data and ignored subsequent data from testing and excavation. In addition, he chose to ignore problems such as multicomponentcy and representativeness (Cable 1994). Although it was considered a noteworthy study since it was the first to use Geographic Information Systems (GIS) for the analysis of settlement distribution, "the errors detract from the potential value of Savage's approach" (Sassaman and Anderson 1994:142).

Woodland Period

The Woodland period begins, by definition, with the introduction of fired clay pottery about 2000 B.C. along the South Carolina coast and much later in the Carolina Piedmont, about 500 B.C. Regardless, the period from 2000 to 500 B.C. was a period of tremendous change.

The subsistence economy during this period was based primarily on deer hunting and fishing, with supplemental inclusions of small mammals, birds, reptiles, and shellfish. Various calculations of the probable yield of deer, fish, and other food sources identified from some coastal sites indicate that sedentary life was not only possible, but probable. Further inland it seems likely that many Native American groups continued the previous established patterns of band mobility. These frequent moves would allow the groups to take advantage of various seasonal

⁸ Sassaman (1991:87-88) states that "perforated and grooved objects are common items in Late Archaic assemblages of the Savannah River Valley. Both the grooved and perforated varieties have been referred to as "netsinkers", but the more common perforated slave was apparently used as a cooking stone."

resources, such as shad and sturgeon in the spring, nut masts in the fall, and turkeys during the winter.

Early Woodland

Brooks and Hanson (1987) noted significant changes in the density and distribution of upland tributary sites during the Woodland period in the Steel Creek area of the Savannah River Plant. Brooks proposed that as tributary associated habitats became more productive with floodplain maturation that upland tributary terraces became areas of more permanent occupation. For the Savannah River area, the data suggested to Brooks that annual settlement ranges in the Early Woodland period were restricted to tributary watersheds (Sassaman et al. 1990:315).

Artifacts typical of the Early Woodland in the Upper Piedmont consist of Dunlap and Swannanoa ceramics (similar to the Kellog focus of Northern Georgia). The Dunlap series is characterized by a medium to coarse sand paste, fabric impressions, and vessels with a simple jar or cup form. The Swannanoa ceramics, with heavy crushed quartz temper, are cord marked or fabric impressed conoidal jars and simple bowls. Other surface treatments consist of simple stamping, check stamping, and smoothed plain (Keel 1976:230). Early Woodland projectile point types consist of Savannah River Stemmed (and its variants) and Swannanoa Stemmed.

Land use during the Early Woodland period in some areas of the Piedmont suggests extensive use of the inter-riverine zone. Two sites (one in Greenville County and one in Laurens County) contained dense remains and were located on the south face of a slope adjacent to springs. Goodyear et al. (1979:230) suggest that these sites "reflect a fall-winter occupation period with subsistence activities primarily related to nut gathering and deer hunting. If these two sites in fact represent fall-winter base camps it would represent a strong break with previous Archaic systems and their settlement strategies for exploiting inter-riverine biotic resources". Based on these previous studies, Early Woodland sites are most likely to be found adjacent to springs or the upland terraces of tributaries.

Middle Woodland

The Middle Woodland period is "virtually lacking" in the Laurens-Anderson inter-riverine zone. One densely occupied site in adjacent Laurens County was found in an unusually large floodplain of a rank 2 stream. Goodyear et al. state that:

[g]iven the habitation like character of this site, plus the large number of simple stamped bearing floodplain sites along larger streams such as the Reedy River, it is tempting to see agriculture playing a role in the apparent re-orientation to flood-plain environments during the middle Woodland period in the Piedmont environment. In this regard, the middle Woodland period sites and their locations would seem to presage the late prehistoric Mississippian period pattern during the latter, where large agriculturally related villages were constructed along fertile stretches of floodplain (Goodyear et al. 1979:230-231).

This new pattern is also reflected in the Savannah River Valley where Savannah terrace sites at the mouth of Upper Three Runs Creek were being occupied again for intensive settlement. Midden accumulations indicate long term occupation by relatively large groups (Sassaman et al. 1990:315).

Pottery typical of the Middle Woodland in the Upper Piedmont consists of the Pigeon and Cartersville series. Pigeon is quartz tempered with surface treatments of check stamping, simple stamping, and brushing. The Cartersville type is characterized by sand or grit paste with the primary surface treatment being cordmarking, although there are also check stamped and simple stamped varieties. The Cartersville series is thought to be closely related to the Deptford series on the Coast. Anderson and Schuldenrein (1985:720) suggest that Cartersville continues well into the Late Woodland period. Projectile points typically found in association with these pottery are the Pigeon Side Notched and Corner Notched types.

Testing at 38LU107 (Wood and Gresham 1981) demonstrated that one of the most intensive occupations of this multicomponent site was during the Middle Woodland period. This site is located on a knoll adjacent to South Rabon Creek, near its confluence with North Rabon Creek. A number of features were encountered including a large, deep pit, post holes, and a stone hearth. This indicated that even sites on plowed knolls can and do produce subsurface features.

Since the Middle Woodland period reflects a new pattern of settlement, questions regarding how quickly this change occurred and how the transition to horticulture affected their material culture should be examined. Clearly, this change did not occur over night and perhaps examination of radiocarbon dates from upland and riverine sites during this transition period will begin to clarify questions regarding change in lifeways.

Late Woodland

Small triangular points which are generally believed to be diagnostic of the Late Woodland and Mississippian periods consisted of 12 examples in the Laurens-Anderson study. Ten of these were manufactured from quartz while the other two were manufactured from either rhyolite or a Piedmont silicate. These projectile points were typed as "Mississippian triangulars" and included what they believed were Uwharrie or Pee Dee Triangular types and the Hamilton Incurvate Triangular type. Napier and Connestee Series pottery are typical Late Woodland types for the Upper Piedmont region. The Napier series is a fine sand tempered ware with fine complicated stamped designs. The Connestee series is a thin walled sand tempered ware with brushed or simple stamped surface decorations. There are also cordmarked, check stamped, fabric impressed, and plain varieties (Trinkley 1990).

According to Sassaman et al. (1990:317) Late Woodland occupations in the Savannah River Valley consisted of small habitation sites along all available terrace locations of both tributaries and the Savannah River. This increasing use of low-lying terraces suggests the increased exploitation of floodplain habitats, perhaps including maize agriculture, although no direct evidence

has yet been found at the Savannah River Site.

Keel (1976) reported on the Garden Creek Mound No. 3 which contained a dominant Connestee component based on George Heye's 1915 examination of the mound. Later work at Garden Creek Mound No. 2 examined a portion of a village with a large quantity of Connestee remains. A number of post holes were exposed revealing one discernable square house with rounded corners measuring about 19 by 19 feet in outline. In addition, there were a number refuse pits and hearths. The hearths included both rock filled and surface hearths. There were also a number of burial pits (see Keel 1976:99). It is likely that Connestee sites in the Upper Piedmont will contain similar features.

Mississippian Period

The South Appalachian Mississippian period, from about A.D. 1100 to A.D. 1640 is the most elaborate level of culture attained by the native inhabitants and is followed by cultural disintegration brought about largely by European disease.⁹ The period is characterized by complicated stamped pottery, complex social organization, agriculture, and the construction of temple mounds and ceremonial centers.

In the Upper Piedmont, Mississippian pottery includes the Pisgah and Qualla series. Pisgah ceramics are tempered with unmodified river sand, although some earlier examples contain both river sand and crushed quartz. It is decorated with complicated stamping, check stamping and ladder-like rectilinear patterns (Dickens 1970; Holden 1966). It should be noted that the Qualla series extends well into the historic period (ca.1500-1908) and is characterized by complicated stamping and bold incising. Other types described by Egloff (1967) include burnished, plain, check stamped, cord marked, and corncob impressed. At Tuckasegee brushed examples were also identified (Keel 1976). Other artifacts associated with the Mississippian period include triangular projectile points, flake scrapers,

⁹ Small pox was a major cause of death to a large number of Native Americans during the historic period. The smallpox epidemics of 1734 and 1783 reportedly killed half of the Cherokee population (Hatley 1993).

microtools, graters, perforators, drill, ground stone objects (celts, pipes, and discoidals), and worked shell and mica (Keel 1976).

Very little evidence of Mississippian period occupation was found in the Laurens-Anderson inter-riverine survey area which is not surprising given the focus on riverine resources during this time period. Very little evidence of Mississippian occupation has been documented at the Savannah River Plant and no formal settlement-subsistence model has been created for this area (Sassaman et al. 1990:317). However, Anderson (1994) has provided a detailed examination of evidence for political change at Mississippian sites in the Savannah River Valley and should be consulted for more information.

Excavations at large Mississippian sites in the Upper Piedmont include work at the I.C. Few site which was examined as a part of the Keowee-Toxaway Reservoir project sponsored by Duke Power Company (Grange 1972). Simpson's Field (38AN8) on the Savannah River was also investigated during the Richard B. Russell Reservoir studies (Wood et al. 1986). Work at the Chauga site (38OC47) in nearby Oconee County evidenced occupation in the Early and Late Mississippian period. Ten stages of mound building were found at the site along with burials and palisades. There is evidence for increasing impoverishment of the residents through time, since burials associated with the latest phases of mound building contained fewer grave goods than earlier phases in both the occupation during the Early Mississippian and the Late Mississippian (Anderson 1994:303-305). Homes Hogue Wilson (1986) examined burials from the Warren Wilson site in western North Carolina and provided some preliminary conclusions regarding social structure based on location of burials according to age and sex. For instance, she found more males than females were buried under structure floors. These males included primarily those under 25 or over 35 years old. She also found that individuals buried inside of structures were more likely to have burial goods than those buried in public areas. Burial feature types included pit burials, side-chambered burials, and central-chambered burials. Studies such as this can give great insight into the social organization of prehistoric societies.

The largest amount of regional work has taken place in the North Carolina mountains at sites such as Tuckasegee, Garden Creek, and Warren Wilson. At Tuckasegee a possible town house was uncovered measuring about 23 feet in diameter with a central hearth (Keel 1976). At Warren Wilson several roughly square structures were uncovered and they all measured on the average about 21 feet square. Burials were common inside of these houses and pit features were abundant. Artifacts at the Warren Wilson site included ceramics from the Swannanoa series up through the Pisgah series. (Dickens 1970).

Historic Overview

Historical accounts of the territory encompassing the Piedmont began with the DeSoto expedition in 1540 (Swanton 1946). This area, referred to as the "Up Country" or "Back Country" interchangeably, was recognized by the Indians and the early settlers to be the hunting grounds of the Lower Cherokee (Logan 1859:6). In these early years the principal source of interaction between the European settlers and the Cherokee involved a loosely organized trading network.

After the establishment of South Carolina as a British province in 1670, organization and delineation into more manageable territorial units began. In 1685, the Proprietors sectioned the new province into four counties. Present Laurens County was included in the largest of these, Craven County, which remained as Indian land until 1755 (Kennedy 1940:34). A further refinement of boundaries in 1769 saw the creation of the Ninety Six District. It was not until 1785 that Laurens County was created by an act of the South Carolina legislature which divided the district into six units of approximately 45 square miles each.

The 1755 treaty between the Cherokee and Governor James Glen ceded nearly half of the territory of present South Carolina to the whites (Mills 1972:604). An early and sparse influx of settlers from the north was composed mainly of cattlemen and Indian traders. These semi-permanent settlements were concentrated along the streams and rivers where land was both productive and easily cleared. Cattlemen

constructed temporary "cowpens" and planted small sections of corn, grains, and produce for home consumption.

After the initial settlements of the 1750s the white population of the Up Country did not increase significantly until 1761, with the expulsion of the Native American population at the end of the Cherokee War. This created a second wave of immigration and settlement, spearheaded by farmers from the northern colonies of North Carolina, Virginia, Maryland, and Pennsylvania. These settlers developed a self-sufficient economy based on planting flax, tobacco, corn, wheat, and oats, and raising cattle and hogs for their own use. Slaves were relatively uncommon until the early 1800s.

In this early period of European settlement there was little connection with the legal authorities on the coast (i.e., Charleston), leaving the Up Country largely autonomous. This led to the emergence of the Regulator Movement of the 1760s, a vigilante organization which attempted to maintain order and provide security through a system of courts and offices (Racine 1980:13). By the eve of the Revolution, two-thirds of the South Carolina population lived in the Up Country (Racine 1980:14).

By the onset of the American Revolution, the population of the Carolina Up Country was quite diverse in its ethnic, religious, and political backgrounds. These differences seemed to localize the hostilities between Whigs and Tories living side by side.

Though the end of the Revolutionary War brought few changes to the life of the Up Country farmers, a solid framework of social and political organization was beginning to emerge. In 1785, an act of the State Legislature formed Laurens County and provided that a court be held at the county seat every three months. The town of Laurensville was established the same year, solely as the county seat, and the first court was held in June 1785. The town was laid out as a rectangle surrounding the square, with five radiating streets (Laurens County Historical Society 1982:60).

In 1790 the Piedmont, with 81,533 inhabitants, accounted for 32.7% of South Carolina's population. By 1800 the population of this area had

increased to 120,805, an increase of 48.2% over the previous decade. One obvious reason, clearly, was the promise of good agricultural lands, by this time a rare commodity in the coastal region.

Tobacco remained the economic mainstay of the Up Country until the early 1800s (Ford 1988:6). The dogged persistence of tobacco, in spite of low yields, poor quality, and strong competition, was to foreshadow the impact of cotton on South Carolina.

Interspersed with subsistence crops was indigo, a crop best known from the coastal region, but produced on a number of up country plantations as well. In fact, Henry Laurens and John Lewis Gervais planned to establish a 13,200 acre indigo plantation in the Ninety Six District, but the Revolution diverted them from this plan. Other planters, however, found near immediate wealth in indigo, planting as much as 40 to 100 acres. Others favored smaller acreage, ranging from 10 to 25 acres, which required fewer slaves but still allowed profits during the period from 1740 to 1770 (Huneycutt 1949; Rembert 1990).

The importance of South Carolina indigo waned after the Revolutionary War. Never considered of high quality, the indigo from South Carolina could not compete on the open market after its favored status ended with independence from Britain. Coupled with this political development was the development of improved processing techniques in India which drastically reduced the profitability of South Carolina indigo. The final blow was the 1793 invention of the cotton gin, which opened a new economic era in the State. Indigo continued to be grown into the eighteenth century, and in 1830 nearly 200,000 pounds were exported from South Carolina. Yet, this represented little profit and the bulk of the crop which continued to be grown in South Carolina is best considered a cottage industry.

James Henry Hammond's defense of the South before the United States Senate declared, "No, you dare not make war on cotton. No power on earth dares to make war upon it. Cotton is King." This sentiment was the culmination of nearly fifty years of agricultural and economic practices that led the South to the brink of destruction. The Up Country's participation in this

economic roller coaster has been described in some detail by Ford (1988) and only a brief synopsis will be presented here.

Lacking a consistently profitable staple crop, the Up Country concentrated on the production of subsistence crops until the early 1800s with the introduction of the cotton gin and the rise of English textile mills, the out-growth of the industrial revolution. This early emphasis on food stuffs, while retarding upward mobility, had a lasting influence on the region, its economy, and its world view.

The 1826 Mills' map of Laurens District fails to reveal any settlement in the project area (Figure 5). Moreover, it reveals that the project area is fairly distant from any major road, suggesting that the absence of settlement may be attributable to more than simply his maps being subscription based.

Cotton spread quickly during the first decade of the 1800s and by 1811 the Up Country was exporting over 30 million pounds of short-staple cotton (Ford 1988:7). This cotton boom promoted tremendous growth in the region, a growth that even the yeomen farmers could participate in since it required little capital outlay and was subject to no particular economies of scale.

As in the coastal area, the history of cotton in the Up Country is also the history of slavery. While Laurens County had only 1,919 slaves in 1800 (one household in five was a slaveholder), the number grew to 7,243 by 1830, and 13,000 by 1860. At the eve of the Civil War slaves outnumbered the white inhabitants of Laurens by 3000 persons (Burnside 1982:13-14). The boom in cotton radically changed the face of the Up Country, adding hundreds of slaveholders. The percentage of whites in Laurens County declined from 84.9% in 1800 to 72.1% in 1820 to 48.6% in 1850 (Ford 1988:45). In spite of the increase in both number of slaveholders and number of slaves, by 1820 only 64 individuals in the entire region owned fifty or more slaves, revealing that many of the farms and plantations continued to be operated solely by whites, or with a minimal number of Black slaves (Ford 1988:12-13).

Slave holding did become, in Ford's terms "a widely recognized symbol of social respectability" (Ford 1988:14). And this respectability was purchased by the profits of cotton. Flush, but fragile, cotton produced an economic system not unlike rice -- bound to the world economy over which the planter had no control. Consequently, the Napoleonic Wars caused a downturn in prices, with a revitalization of the boom in 1815 at the end of the war. By 1818 the prices were up to 30¢ a pound, from a low of 10¢ a pound during the war. By 1819 the prices began to drop as the world experienced a serious depression or deflation, with no real recovery until the 1830s. Even this recovery was short lived, with the Panic of 1837 drastically reducing cotton prices into the 1840s.

In 1850 there were 11,953 slaves in Laurens County, working on 1,603 farms totaling 182,525 improved acres (or about 40% of the total acreage in the county). The total value of Laurens County farms was \$4,060,899, ranking fifth in the state, behind only Charleston, Edgefield, Beaufort, and Abbeville. Laurens ranked fourth in number of horses (n=7,286), fourth in swine (n=55,288), 10th in cattle (n=22,848), and 11th in sheep (n=11,583). Agricultural production was high, with the county producing more wheat and oats than any other in the state (129,694 and 66,337 bushels respectively). It produced the third largest corn crop (895,291 bushels). The cotton crop, composed of 15,842 bales, was the seventh largest in the state (surpassed only by Abbeville, Edgefield, Newberry, Sumter, Fairfield, and Chester counties). Laurens also ranked fourth in the total value of slaughtered livestock (n=\$174,336). Even in manufacturing the County was prospering. It ranked eighth in total capital (n=\$184,475) and third in production (n=\$419,715) (DeBow 1854:304-307).

At least part of this agricultural diversification was the result of the reform movement of Edmund Ruffin (1843), who argued for increased food crops, decreased cotton, and greater industrial development. While having some short-term impact during the period of depressed cotton prices, as soon as cotton prices recovered, it was again planted in mass. In 1849 Up Country farmers produced 75% more cotton than they had a decade earlier (Ford 1988:43). In spite of this the Up Country remained largely self-sufficient, with this

self-sufficiency being more pronounced in the Upper Piedmont counties of Anderson, Lancaster, Greenville, Pickens, Spartanburg, and York, than in the Lower Piedmont counties, such as Laurens.

Ford remarks that while the agricultural reform movement didn't wean the Piedmont from cotton:

it did force many Upcountry whites to confront the possible tension between the ideological devotion to personal independence and their economic interest in commercial agriculture. At least in theory, production for the market encouraged specialization rather than self-sufficiency and involved the producer in an increasingly complex network of economic relationships which threatened to undermine his independence. Unless properly leveraged, participation in the market economy portended an end to the splendid isolation of self-sufficiency which did so much to preserve personal independence (Ford 1988:52).

Even in Laurens County the Milton Agricultural Society reported, "we raise among ourselves nearly all the hogs, and all the cattle, that we need for consumption" and that "every farmer raises all the grain which he consumes, and usually markets a surplus of wheat and flour" (quoted in Ford 1988:54).

Ford also cautions against the easy trap of accepting the "dual-economy" hypothesis that views the Up Country as divided into planters raising cotton and yeoman farmers raising food stuffs. Ford notes:

by and large, Upcountry yeomen were not forced to make an all-or-nothing choice between commercial agriculture and subsistence farming, or between traditional mores and market values. Instead Upcountry yeomen made a set of crop-mix

decisions each year, balancing their need for a sure and steady food supply with their desire for cotton profits, a cash income, and a higher standard of living (Ford 1988:72).

There remained an uneasy peace between yeoman and plantation owner in the Up Country. In order to maintain the political support of the yeoman majority, planters were forced to moderate their economic and legal power, molding themselves to the community mores and opinion.

Ford argues that the Up Country actively participated in Secession because of the:

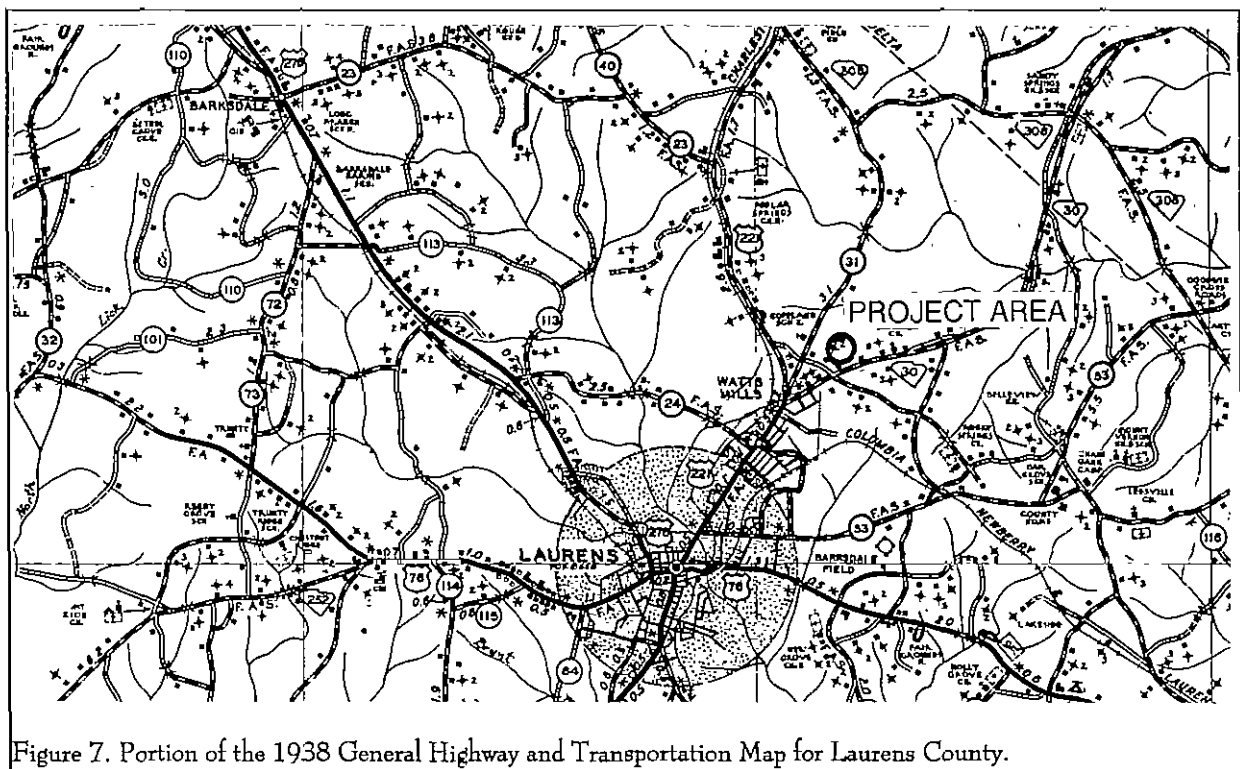
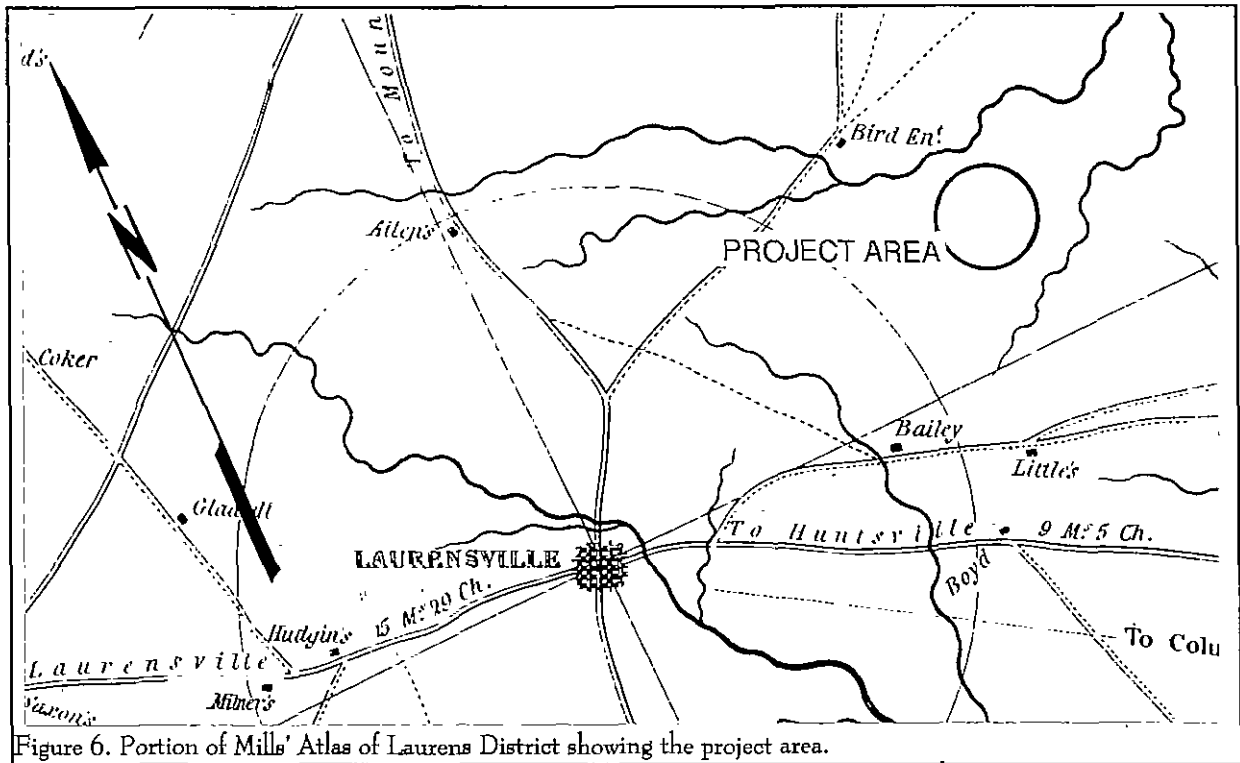
"country-republican" ideal of personal independence, given particular fortification by the use of black slaves as a mud-sill class. Yeoman rose with planter to defend this ideal because it was not merely the planters' ideal, but his as well (Ford 1988:372).

The Civil War had little military impact on Laurens and no battles were fought in the County. It did, however, change Laurens' history, destroying the basis of its wealth and creating in its place a system of tenancy -- the hiring of farm laborers for a portion of the crop, a fixed amount of money, or both.

Immediately after the Civil War cotton prices peaked, causing many Southerners to plant cotton again, in the hope of recouping losses from the War. The single largest problem across the South, however, was labor. While some freedmen stayed on to work, others, apparently many others, left. An Englishman traveling through the South immediately after the war remarked that, "Thirty-seven thousand negroes, according to newspaper estimates, have left South Carolina already, traveling west" (quoted in Orser 1988:49).

The hiring of freedmen began immediately after the war, with variable results. The Freedmen's Bureau attempted to establish a system of wage labor, but the effort was largely tempered by the enactment of

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the Black Codes by the South Carolina Legislature in September 1865. These Codes allowed nominal freedom, while establishing a new kind of slavery, severely restricting the rights and freedoms of the black majority (see Orser 1988:50). Added to the Codes were oppressive contracts which reinforced the power of the plantation owner and degraded the freedom of the Blacks. The freedmen found power, however, in their ability to break their contracts and move to a new plantation, beginning a new contract. With the high price of cotton and the scarcity of labor, this mechanism caused tremendous agitation to the plantation owners.

Gradually owners turned away from wage labor contracts to two kinds of tenancy -- sharecropping and renting. While very different, both succeeded in making land ownership very difficult, if not impossible, for the vast majority of Blacks. Sharecropping required the tenant to pay his landlord part of the crop produced, while renting required that he pay a fixed rent in either crops or money. In sharecropping the tenant supplied the labor and one-half of the fertilizer, the landlord supplied everything else -- land, house, tools, work animals, animal feed, wood for fuel, and the other half of the needed fertilizer. In return the landlord received half of the crop at harvest. This system became known as "working on halves," and the tenants as "half hands," or "half tenants."

In share-renting, the landlord supplied the land, housing, and either one-quarter or one-third of the fertilizer costs. The tenant supplied the labor, animals, animal feed, tools, seed, and the remainder of the fertilizer. At harvest the crop was divided in proportion to the amount of fertilizer that each party supplied. A number of variations on this occurred, one of the most common being "third and fourth," where the landlord received one-fourth of the cotton crop and one-third of all other crops. In cash-renting the landlord provided the land and housing, with the renter providing everything else and paying a fixed per-acre rent in cash.

Between 1880 and 1925 the number of owner-operated farms in the Piedmont increased by 35.3%, while the number of cash renters increased by 375.4% and the number of sharecroppers increased by 155.8%. Moreover, 1880 was the only year between 1880 and 1925 during which a majority of Piedmont

farmers were owners, and this occurred in only three counties. One of these was Laurens, where 58.6% of the farmers were listed as owners in 1880. Afterwards the population of owner-operators in the Piedmont remained at about 30% (Orser 1988:60).

In 1884 the labor system of Laurens County was described:

Land is usually furnished for services rendered. One-third of crop is paid for rent. Wages do not prevail such. When they do, the laborer gives the whole time [a 10-hour day] and is paid as above [board and \$8 to \$10 a month for men and \$4 to \$6 a month for women] (The News and Courier 1884:n.p.).

The account continued by noting that the cost of cotton production was about \$40 per 500 pound bale. There were about 200 gins operating in Laurens County and the distance cotton would be hauled to a gin never exceeded 3 miles. The report indicated that freedmen "never succeed [as farm owners] unless under advice and using the judgement of white farmers of experience" (The News and Courier 1884:n.p.).

Orser notes that the period from 1880 to 1920 is one of consistent agricultural expansion, with a concomitant increase in cotton production. This trend, however, changed between 1920 and 1925, when both the number of farms and the cotton production dramatically decreased (Orser 1988:69). The causes of this reversal are at least two-fold: increasing Piedmont erosion and the introduction of the boll weevil (cf. Orser 1988:77).

The 1938 General Highway and Transportation Map of Laurens County (Figure 6), reveals that there were two tenant houses in the immediate project area, situated behind the main farm unit, fronting the road today known as Le Cary Road. The structures shown on this map are probably represented by the scatter identified as 38LU444.

SURVEY METHODS AND FINDINGS

Methodology

The initially proposed field techniques involved the placement of shovel tests at 100 foot intervals, regardless of topography or soil conditions, within the proposed mine pit survey area. This interval, at the low end of the range recommended by the State Historic Preservation Office, would be most likely to identify sites which might be present. If areas of steep slopes were encountered, or if the shovel testing revealed eroded soils, then we reserved the ability to adjust the test interval to 200 feet.

All fill was to be screened through 1/4 inch mesh, with each test numbered sequentially on its transect. Each test would measure about 1 foot square and would normally be taken to a depth of at least 1 foot. All cultural remains would be collected, except for mortar and brick, which would be quantitatively noted in the field and discarded. Notes would be maintained for profiles at any sites encountered.

Should sites (identified as three or more artifacts within a 25 foot diameter) be identified by shovel testing, further tests would be used to obtain data on site boundaries, artifact quantity and diversity, site integrity, and temporal affiliation. The information required for completion of South Carolina Institute of Archaeology and Anthropology site forms would be collected and photographs would be taken, if warranted in the opinion of the field investigator.

The actual field methods did not deviate from those initially proposed. The proposed mine pit is in an area of generally low visibility, being largely covered by pasture grass (see Figure 3). There was, however, one area where clear cutting had exposed the ground surface (see Figure 4), dramatically increase surface visibility. Regardless, this area was also shovel tested at 100 foot intervals. In addition, a pedestrian survey was also conducted in this area.

As a result, the nine acre tract was investigated through the excavation of 90 shovel tests, for an average of 4.5 shovel tests per acre (Figure 8)

Findings

38LU444

The shovel tests failed to identify any archaeological remains in the survey tract. However, the pedestrian survey of the clear cut area at the northeastern edge of the survey tract revealed a scatter of historic materials measuring about 100 feet north-south by about 300 feet east-west (Figure 9). The central UTM for this site is E409680 N3821290 and it is situated about 1,200 feet north and 3,500 feet west of S.C. 49 about at the top of the ridge, at an elevation of 720 feet AMSL (Figure 10).

Materials scattered on the surface include glass, ceramics, and some minor architectural fragments (primarily window glass). Only a selective grab collection was made, which includes four fragments of clear bottle glass, one fragment of green bottle glass, one fragment of brown bottle glass, one fragment of window glass, two whiteware ceramics, one porcelain ceramic, and one fragment of milk glass.

Three of the initial transect shovel tests were placed through the site, with none producing any positive tests. Each profile revealed about a foot of yellowish-red (5YR5/8) sandy clay overlying a very firm red (2.5YR4/8) clay subsoil. This profile is consistent with Cecil soils, and indicates that the site lacks any A horizon. At least since the clear cutting the reddish clay soils are exposed, indicating at the least sheet erosion.

An additional eight shovel tests were excavated 50 feet north and south of the central transect through the site, in an effort to identify subsurface remains and perhaps refine the site boundaries. All of these tests were also negative.

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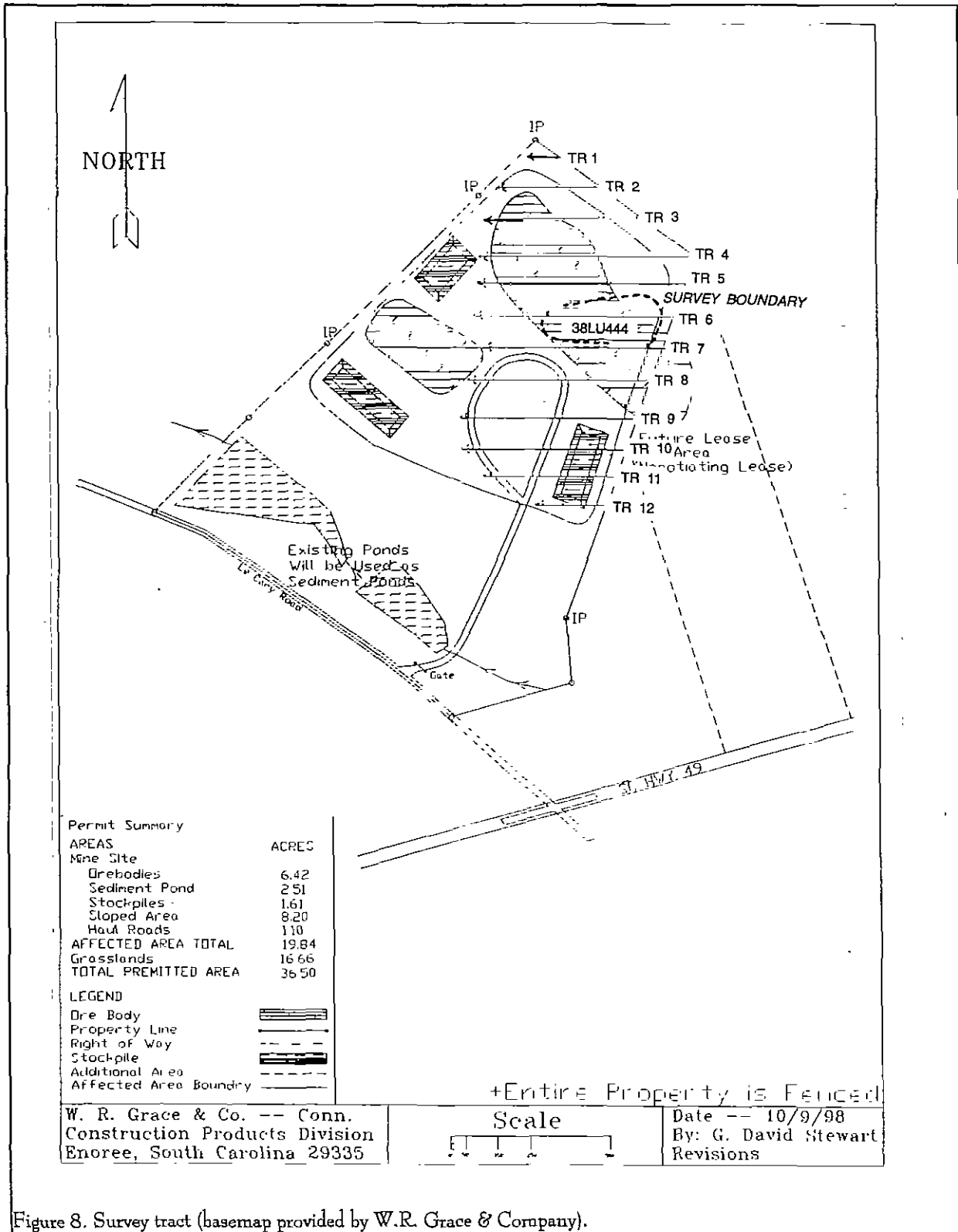


Figure 8. Survey tract (basemap provided by W.R. Grace & Company).

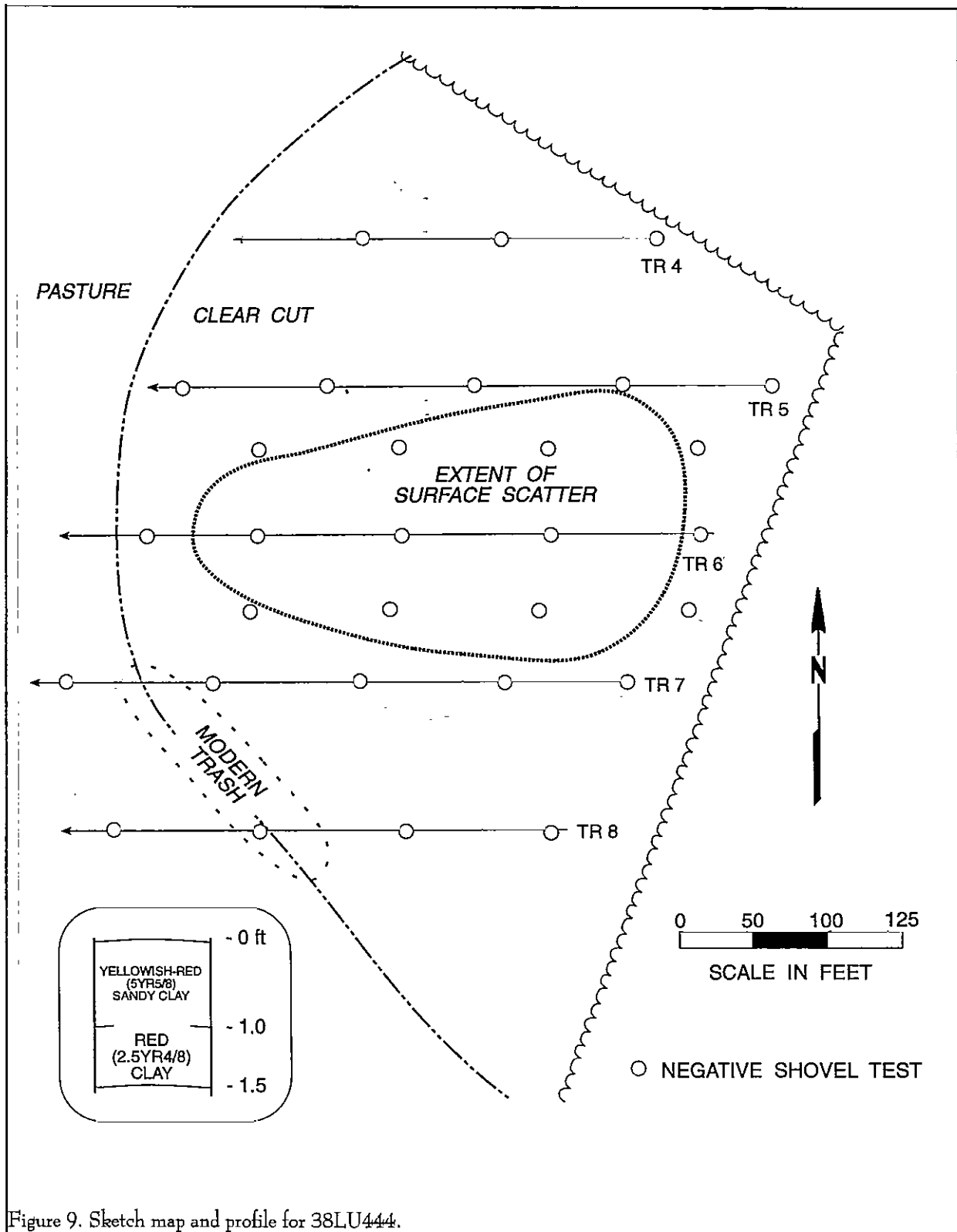


Figure 9. Sketch map and profile for 38LU444.



Figure 10. Site 38LU444, looking to the north.

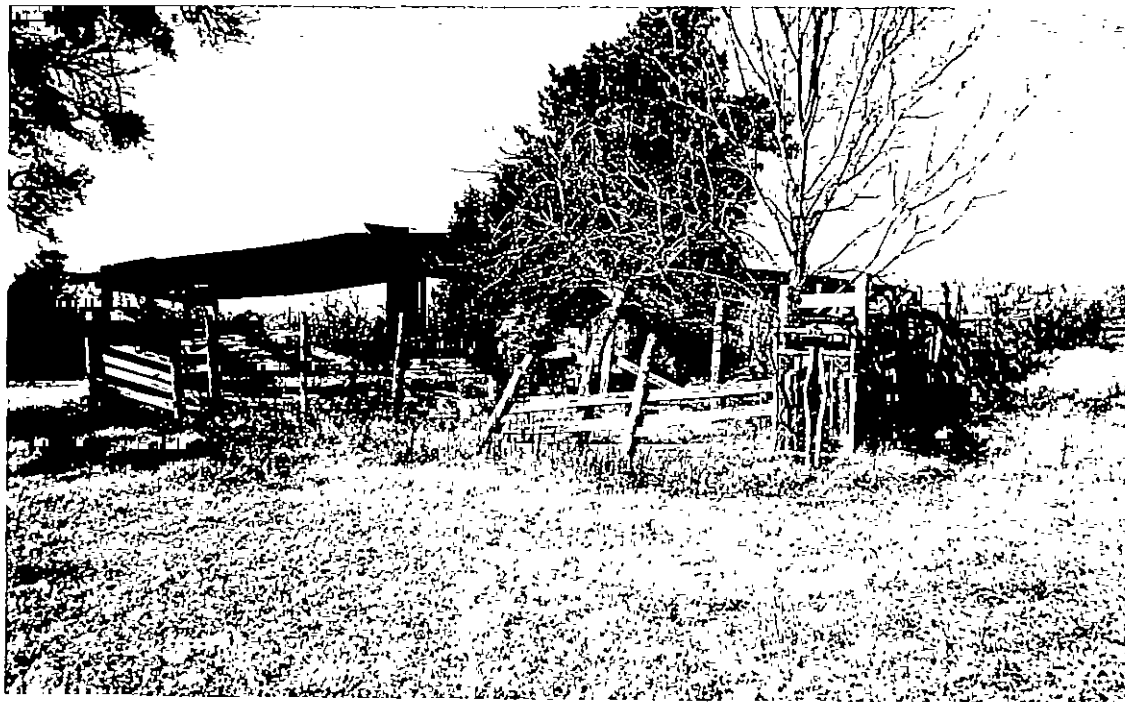


Figure 11. Standing barn and cattle pen south of survey tract, view to the west.

There are a number of appropriate, and significant, research questions for twentieth century sites in the Carolina Piedmont. They can explore the status and range in artifacts present at such sites, explore their relationship to the region's economy, compare the range of materials at different types of sites, and explore issues of ethnicity. Through archaeology the occupants of such sites can be given voices denied them by the scant historical records

Nevertheless, the data sets present at the site are limited to glass and ceramic artifacts, with only a very sparse architectural assemblage. It may be that the bulk of the materials were bulldozed off the site and into windrows with the wood debris from clear cutting. Regardless, the shovel tests failed to reveal any features, concentrations of artifacts, or faunal remains. There are no in situ architectural features.

The historical research reveals that there were originally two domestic structures in this area and it appears that they have been blurred together — further complicating any efforts to tease apart the artifact assemblage or make sense of the surface scatter.

Coupled with these concerns is the evidence that the site has suffered extensive erosion and that all of the artifacts present will be found on the surface. There appears to be no depth to the deposits and there is no way, with the recent clearing, to determine if these remains retain their original horizontal integrity. In fact, given the presence of the nearby windrow, they likely do not.

As a result, it is unlikely that the data sets are adequate, or appropriate, to address the research questions. Moreover, it is likely that these data sets have been largely stripped of their integrity, further reducing their research potential.

As a result, we recommend the site as not eligible for inclusion on the National Register of Historic Places. No additional management activities are recommended, pending review by the State Historic Preservation Office.

Nearby Standing Architecture

About 600 feet to the southwest — and off the survey tract — there is a standing wood barn and animal pen (Figure 11). It is in poor condition, but appears to have been used to corral cattle. A cattle chute is present on one side. A portion of the structure is open, while a portion is roofed in tin.

It is unlikely that this structure is eligible for inclusion on the National Register, but being outside the survey tract we made no further assessment effort. W.R. Grace & Company should take care not to affect the condition of this structure without additional assessment.

CONCLUSIONS AND RECOMMENDATIONS

The background research for this project failed to identify any known or suspected archaeological sites, although the piedmont topography is certainly appropriate for the recovery of Archaic Period prehistoric archaeological sites. Tempering this assessment, however, is the documented extent of erosion in Laurens County, especially associated with the steep soils and cultivated ridgetops associated with the area. The historical research did reveal the probable location of two early to mid-twentieth century domestic farm structures, probably tenant houses.

The archaeological survey combined pedestrian survey with shovel testing. The study tract was shovel using tests spaced at 100 feet on transects every 100 feet. The tests revealed that our concerns regarding erosion were well founded. The vast majority of the tests revealed a very thin A horizon or an absence of A horizon soils. In addition, some of the tract had been logged, which probably exacerbated the natural erosion tendencies.

Regardless, a small scatter of historic remains was encountered — not in the shovel testing, but during

the pedestrian survey. Recorded as 38LU444, this site is evaluated as lacking both the data sets, and the integrity, to adequately address significant research questions. As a result, the site has been recommended not eligible for inclusion on the National Register.

A standing structure was found on the property, but outside the survey boundaries. While it is unlikely that this barn could be considered eligible for inclusion on the National Register it was not assessed as part of this study and no action should be taken that would endanger it until such time as an assessment is made.

There remains, of course, the possibility that unrecorded archaeological sites may be identified during the construction of the project. While unlikely, sites might be identified by concentrations of bricks, bottles, pottery, ceramics, arrowheads or other stone tools, flakes, or even bones. Should such remains be found, it is our recommendation that construction be halted and that either Chicora or the State Historic Preservation Office be notified of the finds. This will allow a more complete evaluation.

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