LIFE WEAVING GOLDEN THREAD: ARCHAEOLOGICAL INVESTIGATIONS AT THE SAMPSON MILL VILLAGE, GREENVILLE COUNTY, SOUTH CAROLINA

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LIFE WEAVING GOLDEN THREAD: ARCHAEOLOGICAL INVESTIGATIONS AT THE SAMPSON MILL VILLAGE, GREENVILLE COUNTY, SOUTH CAROLINA

Research Series 36

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Never before have the rich been so rich and the poor been so poor.

-- M. Meltzer, *Bread and Roses, American Labor, 1865-1915*

ABSTRACT

Social historians have long been interested in the rise of the Southern cotton mill after the American Civil War. Coupled with the rise of industrialism and capitalism, cotton mills represented a dramatic change from the agrarian life common to the vast majority of Southerners. In spite of the far reaching consequences to the daily lives of thousands of Southern workers, or to the political and social climate, relatively few studies have been undertaken in South Carolina. None of these have examined the archaeological remains of cotton mill life.

The investigations conducted by Chicora Foundation at the Sampson, later American Spinning Company, mill village on the outskirts of the City of Greenville, South Carolina provides a glimpse of mill life during the late nineteenth and early twentieth centuries. Excavations were conducted at two house sites, exploring the architectural remains, the dispersion of yard trash, and the food remains present -- all in an effort to reconstruct the lives of the mill workers.

Coupled with this work was the collection of reminiscences by mill workers, primarily from individuals who lived and worked at the village during the last two decades of its life (the 1930s and 1940s). While collected too informally to be called oral history, it does provide another dimension to the archaeological research -- illustrating the personal side of Greenville's history.

Finally, the research also incorporated the collection of what primary source material could be found for Sampson Mill and the associated village. This research, perhaps more clearly than any other aspect, emphasizes why archaeological research is so necessary if we wish to understand the lives of the early mill workers. Just as the African American slave is the invisible person of the antebellum plantation, the mill worker can be considered the invisible person of the early twentieth century.

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ACKNOWLEDGEMENTS

This work was funded by the Greenville County Redevelopment Authority. In particular, Mr. Bill Slough, Ms. Sidney Garrett, and Ms. Lynn Pry have participated in all phases of this work. I hope that these investigations have awaken a new interest among Greenville County agencies in the preservation of Greenville's history and heritage.

I also want to especially thank Ms. Ann McCuen who graciously accepted the tremendous burden of conducting the historical research for this project. Similarly, Mr. Wesley Breedlove accepted the responsibility of coordinating volunteers and assisting in local logistics. I can't begin to thank these two individuals enough. Without their support, freely given, it would have been impossible for Chicora Foundation to conduct as detailed research or provide as complete an overview of the Sampson Mill Village. Their love for the local history and heritage should be emulated by more professionals.

A number of very dedicated volunteers came out and participated in the excavations -- braving cold, wet weather, boggy clay soils, and constantly gloomy skies. It is unfortunate that more archaeological projects don't take advantage of the love of the past that the public so often has. I hope that those who participated received as much as they gave to us. I want to thank each one for their help -- Wesley Breedlove, Wendy Gaillard, Jane Kirkman, Amy Madding, Anne McCuen, Fran Neely, Richard Sawyer, Brianm Siegel, Laurie Waldrop, and Clint Welsh.

In addition to the volunteers, we were almost "swamped" by the public who, finding out about the work, came to visit. Most were residents of the mill village and this work was received, at first, with surprise. As one visitor remarked, "I don't know what you are looking for -- we didn't have anything in those days." After a few minutes, however, they became proud that ***their*** heritage was being studied and preserved. They often spoke of the "good times" and the "good neighbors" in the village. I want to thank every single person that came out to the site, again braving very poor weather. I not only appreciate their contributions to the oral history, but also their support of our efforts to preserve the past. I hope that I have remembered everyone's name, but if I have missed anyone I offer my sincere apologies:

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John H. Thomas

I also want to thank the media which covered the excavations and assisted in getting the word of the project out to the public, including the *Greenville News* and WSPA-TV, Channel 7 in Greenville. Mr. Lynn Duncan, a history teacher at Northwest Middle School in Travelers Rest was so interested in the project that he brought his entire class of about 60 kids out to the site. I want to thank him for his interest in "bringing the past to life" and hope all of his students were as excited

about the visit as we were to have the opportunity to speak with them.

This report has significantly benefitted from the review comments offered by Dr. Charlie Hall, archaeologist with the South Carolina State Historic Preservation Office. We appreciate his diligence and interest in the research.

I want to thank my associates who work with me in the field, Ms. Natalie Adams and Ms. Liz Pinckney. They consistently demonstrate their skill, dedication, and professionalism. Finally, I want to thank Debi Hacker for all of her perseverance. Chicora Foundation is very fortunate to have such dedicated individuals and hope that this study, when read by the citizens of Greenville County, will reflect positively on the efforts that the entire team.

INTRODUCTION

Natalie Adams and Michael Trinkley

Background

The 16 acre project area, currently owned by a private investor, is intended to be developed with affordable housing. The project, coordinated by the Greenville County Redevelopment Authority (GCRA), has U.S. Department of Housing and Urban Development involvement. Because of this federal involvement, the project falls under the review of the National Historic Preservation Act of 1966. The South Carolina State Historic Preservation Office (SC SHPO) recommended that the project area receive a reconnaissance level survey in a letter to the GCRA (letter from Mr. Ian Hill to Ms. Lynn Pry, dated July 22, 1992). Chicora Foundation was requested by the GCRA to submit a proposal for an archaeological reconnaissance on July 29 and an agreement was reached for such a study on August 26, 1992. The reconnaissance study was conducted on September 1, with some preliminary historical research taking place on August 27.

As a result of this initial reconnaissance level study, one archaeological site, 38GR190, was recorded. Historical research conducted by Ms. Ann McCuen and Chicora Foundation revealed that the site consisted of a late nineteenth and early twentieth century mill village first associated with the O.H. Sampson Mill and later the American Spinning Company. It operated from 1898 until the late 1950s. The site was found to encompass the entire 16 acre tract with the actual village boundaries extending off the project area. Based on the findings from shovel testing and surface collections, which indicated that the entire site was an archaeological site, close interval shovel testing (which exceed the scope of work for a reconnaissance study) was conducted to explore a few, very selective, areas. A total of 52 shovel tests were excavated across the 16 acre project area. During the initial walk-over survey, ten structure areas were identified as containing above ground structural features or surface remains, and three of these (identified in that work as Structures 7, 8, and 9) were more intensively shovel tested (see Adams and Trinkley 1992a).

In general profiles indicated that the top 0.5 foot of soil was dark brown in color, while below this was red clay subsoil, suggesting that over most of the site there was an intact cultural zone. Although conducted at a reconnaissance level, the testing also revealed the presence of in situ remains, structural remains, intact soil profiles, dense artifacts, and a lack of surface disturbances. It was clear that the site was in excellent condition. In addition, the preliminary historic research revealed abundant historic documentation (including Sanborn Insurance maps) which could be used in conjunction with archaeological research to address a variety of significant research questions.

Chicora Foundation recognized that the site could either be recommended as "potentially eligible," requiring yet another phase of more intensive survey, or it could be recommended as "eligible" for inclusion in the National Register. The former approach, while allowing considerably more detailed information to be collected, would not only cost additional money, but would also further delay the project. Recognizing the importance of this project to Greenville County's citizens, Chicora Foundation chose to recommend the site as eligible, based on the available information. A copy of Chicora's report was provided to the SC SHPO on September 22, 1992.

While assessments of National Register eligibility based on reconnaissance studies are both

unusual and potentially risky, the SC SHPO also recognized the urgency of this particular project and, given the detail of the initial survey, agreed to find the site eligible for inclusion on the National Register (letter from Dr. Charlie Hall to Mr. Bill Slough, November 5, 1992). A two-party Memorandum of Agreement between the SC SHPO and the GCRA was developed and signed by both parties in February 1993, several months after the field investigations (Mr. Charlie Hall, personal communication 1993).

A scope of work was developed for this project and Chicora Foundation was requested by the GCRA to prepare a technical and budgetary proposal for further work at the site, initially with a $12,000 cap or ceiling. Recognizing that the site required investigation far in excess of the funds being made available, Chicora developed a proposal utilizing local volunteers to assist in the archaeological research, oral history, and historic documentation. The Foundation also devised a plan which allowed a significant cost-match, further expanding the ability to conduct the necessary work at the site. A proposal for these investigations was submitted by Chicora on November 13, 1992. Shortly afterward the Foundation was notified that the GCRA determined that the maximum funds available were only $8500, significantly less than originally indicated and far less than what would be necessary to conduct "data recovery."

In consultation with Dr. Charlie Hall of the SC SHPO, a reduction in scope was developed and a second proposal was submitted on November 30, 1992. This proposal, incorporating very limited testing at two house lots on the site, was accepted by the GCRA on December 11, 1992. While only representing a very small sample of the project area (the two lots represent a sample of about 2.7% of the 73 lots, while an anticipated excavation of 400 square feet would represent a sample of less than 0.06%), the available funding severely limited the investigative techniques or methodology, research design, and sample size. It seems more reasonable to describe the work undertaken at 38GR190 as intensive testing, rather than data recovery. The rational for this semantic distinction will become clearer as the results of the research are discussed in this and following sections.

Archaeological investigations were begun at 38GR190 by a crew of three archaeologists (including the Principal Investigator, Dr. Michael Trinkley) on December 6, 1992 and continued through December 21, 1992. In addition to the Chicora archaeologists, there were from two to six volunteers (coordinated by Mr. Wesley Breedlove) assisting at the site. A total of 220.5 person hours were spent in the field (with nearly 55% of the person hours attributable to volunteers). An additional 24 person hours were spent on field processing during rain periods. As a result of this work 300 square feet (12 5-foot units) of site area were opened. This resulted in the excavation of over 185 cubic feet of soil, all dry screened through $\frac{1}{4}$-inch mesh. Consequently, the actual excavations produced a sample of about 0.04% of the site area.

Historical research incorporated nearly 80 hours of time volunteered by Ms. Ann McCuen, combined with an additional 16 hours of research conducted by Chicora Foundation. In addition, Ms. McCuen contributed an additional 40 hours of time collecting accounts of the village from visitors to the site. Consequently, 136 hours of historical research were conducted on this project, virtually all without expense to the GCRA.

A management summary of the archaeological investigations was completed and provided to the GCRA and the SC SHPO on December 23, 1992. Intended only as a brief synopsis of the work, this preliminary document did, however, indicate the unique significance of the Sampson Mill Village (Adams and Trinkley 1992b). Specifically, the management summary observed:

> the site has surpassed the expectations based on the reconnaissance level investigation and the very limited testing conducted at the site has resulted in a very impressive assemblage of data (Adams and Trinkley 1992b:10).

The analyses of the recovered materials were conducted in Chicora's Columbia laboratories intermittently from December 21, 1992 through January 22, 1993. Conservation treatments, described in a following section in greater detail, are still on-going.

Research Design, Scope, and Goals

The research at the Sampson Mill village revolves around the archaeological and historical examination of mill life in the late nineteenth and early twentieth centuries. While this is a topic which has attracted the attention of many social historians (see, for example, Carton 1982, Simpson 1943, and Hall et al. 1987), it has curiously attracted little archaeological attention, even among those who study the urban setting. As a consequence, the cornerstone of this research must be exploratory. It was intended to begin to isolate significant questions and indicate the breadth of research these sites are capable of addressing.

Several research issues were recognized as being of special importance, including:

Comparison of the lifestyles of the mill worker and supervisory personnel. Coming from very different backgrounds, likely having different expectations of the job, and having differential access to cultural materials (especially luxury items), the archaeological manifestations should be very different. Yet, exactly how different were the lives of the white operatives and white supervisory personnel? On what types of goods did each spend their wages? Can the two groups be distinguished on the basis of archaeological remains or material culture?

Examination of the refuse disposal patterns at the mill village. The only historic account of refuse disposal practices at mill villages in South Carolina is found in the research of the U.S. Public Health Department (Goldberger et al. 1918, 1920a). How different were the refuse disposal patterns of the largely rural mill workers from those of the more urban supervisors? What, if any, limiting factors were imposed by the mill company? Does the refuse occur as sheet middens or as clearly clustered material, for example along the rear property line as seen in urban settings?

Exploration of urban mill village patterns and comparison with other urban and rural patterns. How different were the lives of the while mill workers from the white (or black) farm laborer or tenant in the rural setting? What aspects of rural life were transported with the worker from the rural setting and did these patterns survive the acculturating influence of the mill village? Do the patterns observed in the mill village compare favorably with those already identified through urban archaeological investigations at such locations as Charleston, Savannah, Asheville, or Raleigh?

Investigation of mill worker diet. Historic accounts of the U.S. Public Health Service (Goldberger et al. 1920b) provide a general understanding of the diet of typical South Carolina mill workers in the first quarter of the twentieth century. Can this view be supplemented by archaeological investigation. How does the diet of the mill worker and supervisor compare? And do these diets parallel research at other urban or rural sites?

How did mill life change through time. It is assumed that time ameliorated many of the harsher aspects of mill life. Is there any indication of increasing wealth or prosperity in the archaeological record. Can the excavation of these sites provide a diachronic view of mill life, or will it be possible to see only the broad brush strokes

of mill life? Can the archaeological evidence be correlated with the oral history accounts to provide additional time depth?

What types of activities took place in the mill village. Some traditional historical accounts suggest that mill villages were bleak places where operatives stumbled from bed in the morning to return 12 or 14 hours later, places where children began to work in the mills before puberty -- in sum, places were there was little joy and certainly no time for leisure activities. Accounts written by mill owners, of course, provide a diametrically opposed view. The village was a place of education, sports, leisure, a place which was safe and comfortable. Certainly the truth lies somewhere between the two extremes and was probably different at each village. What can archaeological evidence tell us about the leisure time activities of both adults and children in the village?

Obviously, the research questions posed were very ambitious for a project of such short duration and limited funding. But our goal was not to limit the questions asked to those for which answers could certainly be found. Rather, we hoped that by asking many questions, even if few could be answered, the project would encourage a greater attention to this type of site. Consequently, while there were a number of "research" goals, we had a very pragmatic hope that this research would stimulate additional interest in mill sites and encourage more detailed work in the future.

The scope of the project, as originally envisioned, revolved around three tasks: (1) archaeological research, (2) historic documentation, and (3) collection of oral histories. It was hoped that each would feed into the others, with the archaeological research not only benefiting from historical research and the collection of oral histories, but that archaeology would also be able to resolve some of the questions certain to the raised in the course of documentary research. While the research design, previously discussed, concentrated on archaeological questions, we recognized that the historical research could productively address a variety of areas. For example, the identification of any existing mill records would provide much greater detail in the development and eventual disappearance of the community than the initial research revealed. There are a variety of newspapers which likely contain information pertinent to the mill village, including the *Greenville County Observer* (1928-1932), the *Greenville Daily Herald* (1902-1906), the *Greenville Daily News* (1874-1919), the *Greenville Mountaineer* (1893-1902), and the *Greenville News* (1920-present). The Greenville County Library has a collection of local history materials, many of which are related to textiles. Copies of the city directories would likely provide additional information on the firm which originally built the village, as well as those who lived in the village. A complete title search was anticipated to answer questions regarding the construction and eventual abandonment of the village. The Henry Pinckney Hammett papers at the South Caroliniana Library contain not only Hammett's business papers, but also references to O.H. Sampson and Company. Consequently, these materials may likely provide additional clues to the construction of the mill and associated village.

We also recognized that there were resources essential to our understanding of the Sampson Mill village outside South Carolina. For example, the Library of Congress should be consulted for latter issues of the Sanborn maps, especially for Volume 1 or the 1928 edition. The Southern Historical Collection in Chapel Hill contains the typed autobiography of John Thomas Woodside (1864-1947), a Greenville banker and textile manufacturer. This may contain information useful to the study.

As the proposal for this research was revised in light of reduced funding, it was clear that many of these historical documents could not be incorporated into the study. Travel to the Southern Historical Collection could not be funded. While Ms. McCuen had volunteered to conduct additional research into the Greenville records, there simply was neither the time nor the people to search

through newspapers for mentions (however significant) of the mill village. And even projects which were feasible, such as the examination of the Hammett papers, had to be limited given the very tight schedule imposed on the project by the GCRA.

Consequently, the scope of historical research was dramatically reduced to incorporate a review of the materials available at the Greenville County Public Library, an examination of the city directories for information on the residents of the village, the completion of the chain of title, and review of accessible newspaper collections. The remainder of the historic research was abandoned as impractical under the current circumstances. The only consolation to this is that the historical documents are less threatened than the archaeological site and hopefully their study at a later date can be integrated into this research.

The original scope of services also involved collection of oral histories from mill residents. Like the historical research this was recognized as an essential ingredient in the thorough documentation of the village. Residents, through carefully solicited histories, could provide an intimate view of the lifestyles and attitudes toward mill work. Both oral tradition and material culture details should be collected by the research. The former might include family histories, personal experiences, humorous stories, beliefs, superstitions, legends, games, and stories of play as children. The latter would include information on artifacts such as houses, outbuildings, floor plans, roofing materials, masonry, wall and fence constructions, and tools and implements; information on the cultural landscape, such as wall and fence placement, village planning, use of land and space, physical and economic boundaries of neighborhoods; further information on foodways, such as food preparation, recipes, gardening, canning and curing processes, traditional meal preparation, storage of food, and purchasing of food; information on folk medicine, such as home remedies and cures, use of midwifery, availability of doctors and when their skill was sought, and use of the "pest house" in the village; and information on crafts and trades, especially as relating to textiles (see such texts as Bartis 1990, Allen and Montell 1981 for additional details).

Such work, however, requires a tremendous amount of time. Before the field work is begun it is essential to carefully design the interview methods and outline the significant issues. It takes time to develop a rapport with the subject and gather the information. It takes even more time to transcribe notes and tape recordings, then collate the information. It takes additional time to validate the collected information, and to test the gathered information for historical validity. Finally, it takes time to compile the isolated scraps of oral history into a tapestry reflecting the richness of the combined experiences. Unfortunately, all of this was beyond the funding of the project. And even if volunteers had been identified who were willing to devote the tremendous effort necessary, there was too little time to permit such work to be conducted within the context of this project.

The best that could be hoped for was to collect as many random recollections as possible from those who visited the site, ensuring that a record was maintained of each individual's name and address. In this way, it would be possible in the future to go back to these individuals and solicit information in a more planned, carefully developed fashion. Of course, this approach does not allow very effective integration into the historical resarch. Further, the real danger in this approach is that the individuals may become unavailable before the information is collected. *It is therefore appropriate to consider the informants as threatened a resource as the archaeological site.*

The initial goal of this project was to ensure that the potential research value of 38GR190 was "preserved through the conduct of appropriate research" as stipulated by 36CFR800.9(c), although the work conducted at the village, constrained by both funding and time factors, might better be described as testing. The goal gradually evolved into an effort to collect as much information as was possible.

There is another side to this research, one which is too infrequently found in the archaeological literature. This research has been conducted because it is in the public interest for our heritage to be preserved and studied, not as a "make-work project" for archaeologists, not as a means to delay affordable housing, and not because it "seemed like an interesting idea." It has been done for the public.

This means that the research must not only be professionally sound, but that it must also provide the public with interesting, useful information. The research must be developed, designed, undertaken, and reported in a fashion that the public contribution is real and convincing. The research must demonstrate why our recent history is worth preserving.

Textiles, like cotton, have made South Carolina what it is today. Too often this past, whether in Greenville or elsewhere in our state, has been lost in the rush to the future. Yet, we have found that the public -- citizens, residents of the village, and school children -- supports this work and sees not only the value, but also the need. This public support indicates that there is an interest in preserving Greenville's past for future generations. It indicates that no matter how worthwhile the project requiring the archaeological research (in this case, affordable housing), through good planning there can always be found the time and the funds to integrate preservation.

This public interest is taken seriously by Chicora Foundation. We have tried to ensure that this report is not only available to the public, through such outlets as the South Carolina State Library and the Greenville County Public Library, but that it is also understandable. We have tried to avoid jargon, keep our explanations straight forward and simple, and to remember that our audience and sponsors are the public.

Curation

The field notes, photographic materials, and artifacts resulting from Chicora Foundation's investigations have been curated at the South Carolina Institute of Archaeology and Anthropology (SCIAA), University of South Carolina. The portion of the Sampson Mill Village investigated by the Foundation has been recorded as 38GR190 with SCIAA and the artifacts have been cataloged using that institution's lot provenience system. The specimens have been cleaned and/or conserved as necessary, or are in the process of conservation. Further information on conservation practices will be found in the **Artifact Analysis** section of this report. All original records and duplicate copies were provided to the curatorial facility on pH neutral, alkaline buffered paper and the photographic materials were processed to archival permanence.

NATURAL SETTING

Michael Trinkley

It is somewhat difficult to place an essentially urban site in a "natural setting." Discussions of trees, soil, geology, and climate all seem more out of place here than they do when a rural site is being examined. Yet, when standing on the streets of the Sampson Mill Village one is surrounded by the environment. To the west is a small stream branch with its associated cane break while to the west the ground rises up to a relatively impressive ridge. Unlike many areas of the Piedmont, this site displays an intact A horizon, suggesting that there has been little erosion, perhaps because of the intentional terracing of the slopes. The climate also affected the gardens, as well as the comfort of the inhabitants as certainly as it did any prehistoric or rural historic group. Although the village is urban, by definition, there was still a tremendous amount of interaction between the surrounding environment and the people who lived there. This section will briefly outline the relatively modern environment of the site and how it may have affected life in the village.

Physiographic Province

The Sampson Mill Village is located to the northeast of the City of Greenville, just east of Old Buncombe Road in the northeastern part of the county (Figure 1). The bulk of Greenville County falls within the Piedmont Physiographic Province (although the northern one-quarter is found in the Blue Ridge Mountains). The general slope of the terrain is southeastward, which is the general direction of the major drainages within the County, such as the Reedy River which flows through Greenville and is found only a half mile west of the village. To the east of the village is a small branch, often referred to as Victor Creek, which flows southwesterly into the Reedy. The land ranges from nearly level to steep, but most areas are gently sloping to moderately steep. Like elsewhere in the Piedmont, the drainages form a dendritic pattern and throughout the Piedmont the terrain has been extensively dissected and degraded.

Elevations range from about 750 to 1,000 feet mean sea level (MSL) in the central portion of the county, although in the Blue Ridge Mountains elevations range up to nearly 3,300 feet MSL. Being in the upper portion of the Piedmont, although before the Blue Ridge, elevations in the project area range from about 950 to 995 feet MSL. The highest elevations are in the western portion of the tract and slope down toward Victor Creek to the east. Individual lots within the project area can exhibit considerable slopes. Some areas show evidence of remnant terracing, probably to facilitate construction of individual structures. Historic photographs of the village reveal that these slopes presented a relatively minor obstacle to the siting of the houses. Even the low areas in the floodplain of Victor Creek were used by placing the houses on high brick piers.

Most of the rocks of the Piedmont are gneiss and schist, with some marble and quartzite (Haselton 1974). Some less intensively metamorphosed rocks, such as slate, occur along the eastern part of the Piedmont Province from southern Virginia to 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). In Greenville County there are eight geologic formations ranging from alluvium recently deposited on the floodplains through fine-grained rocks which are diabase dikes that cut across formations of granite and gneiss to coarse-grained rocks such as muscovite pegmatite dikes. This geologic diversity promotes both floristic and topographic diversity,

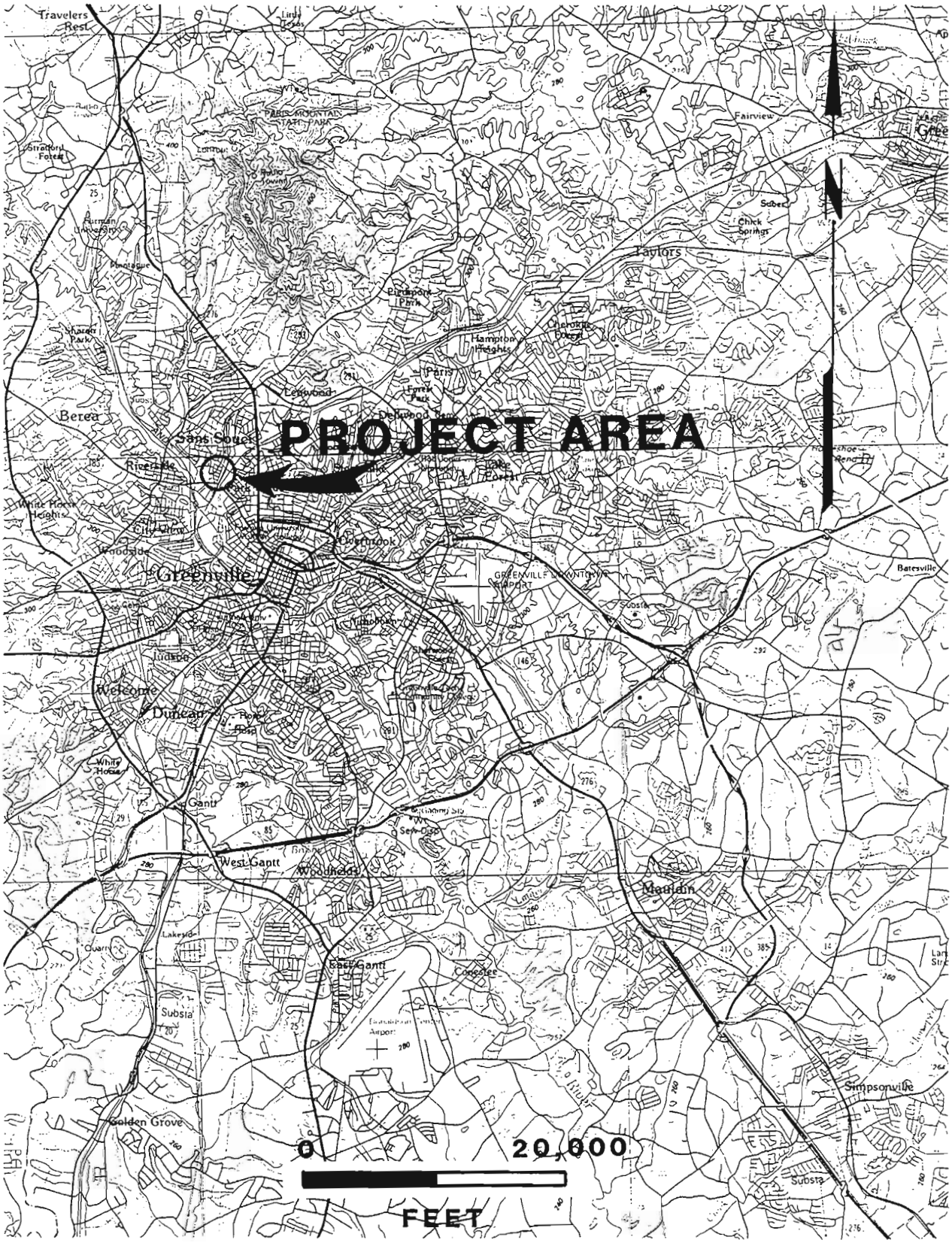

Figure 1. General vicinity of the project area in Greenville County.

although in the project area relatively little of this diversity is immediately apparent.

Today the project area is bounded to the east by the SCL and Southern rail lines. To the south the boundary is halfway between Knight and Buff streets. The western edge is bounded by private property and the Earle/Stone family cemetery just east of Old Buncombe Road. The northern boundary is irregular, following Morris Street from the western boundary where it turns north in the vicinity of Wright Street. It then turns east to Davis Street and follows the road north to Neely Street where it turns east again to the railroad tracts. This appears to represent a core area of the oldest portion of the original village, which expanded through time to the north. A small portion of the village originally extended west, across Old Buncombe Road, into an area that is today residential. A portion of the original village was also found to the south, today under the Bi-Lo grocery store and modern intersection "improvements."

Several paved roads run through the study tract, including Buff, Sizemore, Morris, and Church streets, as well as an old road bed which follows the railroad tracts (Figure 2). In addition, sidewalks, driveway lead-ins, and cement stairs from the street to the sidewalks exist throughout the project area (Figure 3).

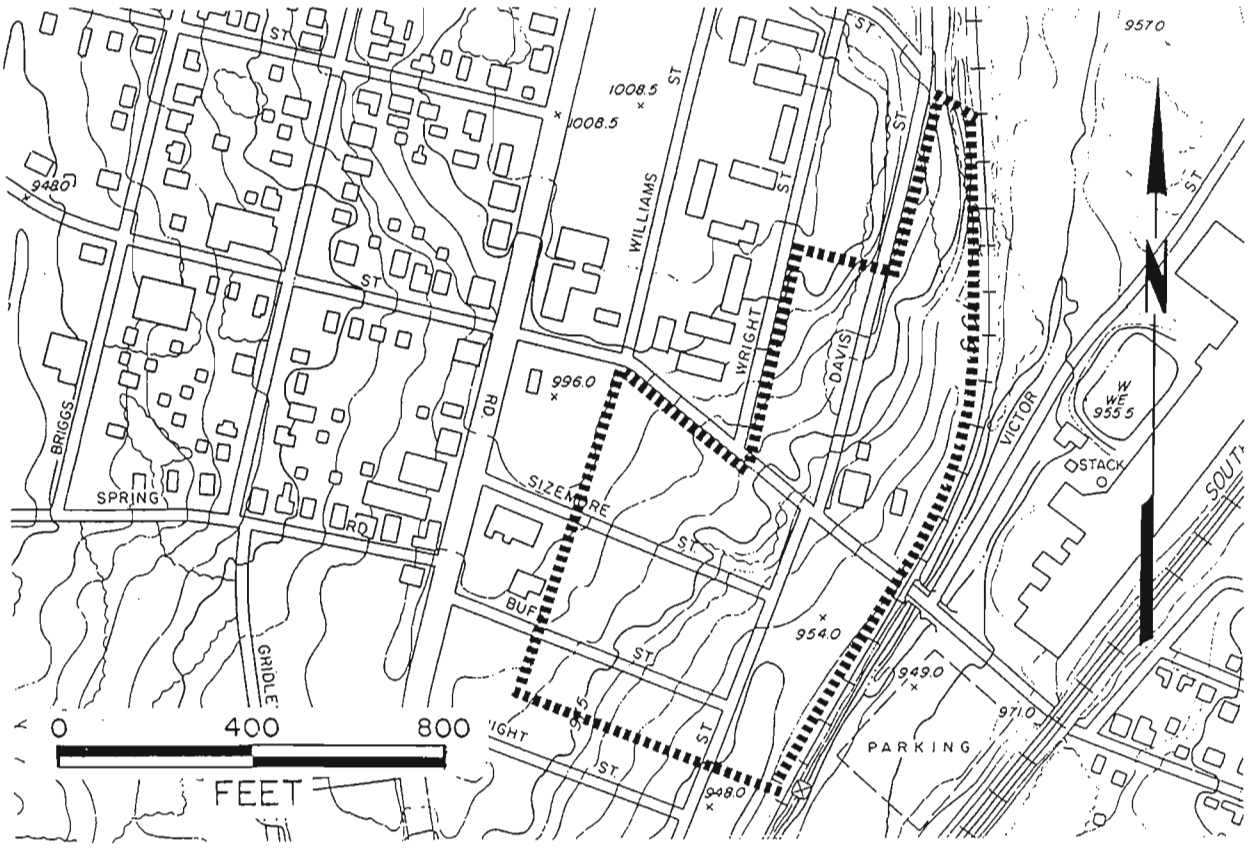

Figure 2. Location of the study area showing street names, railroads, and generalized contours (Greenville County Planning Commission, 1974).

Figure 3. Setting out the grid in Area 3 on Buff Street, view upslope toward the west.

Soils in the project area are classified as Cecil urban-land complex. Cecil soils consist of gently sloping to moderately steep soils that are well drained. The urban-land complex consists of areas that have been excavated, filled, or otherwise disturbed by humans. Generally the surface layer is a dark brown sandy loam about 0.5 foot thick overlying red clay subsoils which extend for about 52 inches (Camp 1975). In the early nineteenth century Robert Mills observed that Greenville County soils were:

> various, embracing the sandy, clayey, gravelly, and stony character. Its productiveness is regulated by circumstances of position and culture; most of the land being capable of yielding a generous product in proportion to the industry bestowed by the cultivator. It is well adapted to the culture of all the small grains and corn . . . . The quantity of wheat produced to the acre, averages about 12 bushels; of corn 25 bushels; of clean cotton 125 pounds per acre (Mills 1972:572 [1826]).

As discussed in more detail below, this was an area of yeoman farmers who placed little pressure on the soils during the early nineteenth century. Prior to the Civil War, however, the population increased, transportation improved, and cotton began to be planted in earnest. With cotton came, for the first time, abandonment, erosion, and gullies. By 1859 John Logan remarked that the Enoree River, separating Greenville and Spartanburg counties, "is now a turbid stream discolored by the dissolving clay of a wasted soil" (Logan 1859:237). After the Civil War cotton was seen, more than ever, as the only salvation of the Southern farmer. Between 1870 and 1880 the acreage of tilled land doubled in the area just below the Blue Ridge. After 1900 erosion became acute because of rising cotton prices which culminated in the agricultural "war boom" during World War I. By 1910 what virgin land remained, even in steep areas, was being cleared for cotton cultivation.

These agricultural practices brought the same disastrous soil loses in this region as already experienced in other sections of South Carolina. Lowry (1934) found significant portions of Greenville County suffering from severe sheet erosion and occasional gullies. Trimble found nearly 0.9 foot of soil had eroded off most of Greenville County, largely as a result of postbellum cotton farming (Trimble 1974:15). A study of erosion in the vicinity of the Spartanburg Municipal Reservoir Watershed, located on the South Pacolet River about 13 miles north of Spartanburg, provides some comparative information since both Spartanburg and Greenville counties suffered similar erosional histories. The authors of the study remark that:

> nearly all the land in the watershed has been affected by erosion or erosional debris. . . . A little more than 17 percent of the land has been severely or very severely eroded, having lost at least three-fourth of the surface soil [estimated to be from 8 to 36 inches of soil loss] or slightly less than three-fourths of the surface soil from areas with frequent gullies. Slightly more than 42 percent have been affected by erosion designated as moderate to severe. Damage has been most severe on the cultivated Cecil soils on slopes of 7 percent and over. Erosion is moderate to severe, severe, or very severe on 88.6 of the cropland (Bass and Martin 1940:12).

It is ironic that the crop which made textile mills such as Sampson hum was the same crop which depleted the soil, forcing farmers off the land and into the mill.

Climate

In the nineteenth century Mills described the climate of Greenville as:

> as one of the most delightful in the world. The lands are well drained, and the major part sufficiently far removed from the mountains, not to be affected by the vapors; yet near enough to partake of their refreshing coolness in summer, and protection from the cold northern blasts in winter (Mills 1972:575 [1826]).

Indeed, most of Greenville County does have a temperate climate characterized by mild winters and warm summers, at least by our standards. Winter temperatures, however, frequently hover between the low fifties and freezing, while in the summer temperatures will frequently be in the upper 80s to mid-90s. With nearly 3000 heating degree days[1], Greenville can be considered cold, especially if you are in a poorly constructed, uninsulated wood frame house.

During the fall, winter, and spring the weather is controlled largely by the west to east motion of fronts and air masses. Air exchanges are less frequent in the summer and maritime tropical air can persist in the region for relatively long periods -- giving rise to very warm, humid days. Precipitation is well distributed throughout the year and averages around 50 inches, adequate for a wide range of crops. For most of Greenville County the average growing season is between 210 and 220 days.

Floristics

Piedmont forests generally belong to the Oak-Hickory Formation as established by Braun (1950). Most common are white oaks, black oaks, and red oaks, although a wide range of additional

[1] A "degree day" is a measurement of heating requirement. It represents the difference between each day's mean temperature and 65° F, the temperature below which houses are assumed to need heat. For example, if a winter's day mean temperature (highest + lowest ÷ 2) equals 45°, then its degree-day total for that day would be 20 degree days. Explained another way, one degree day accumulates for every degree below 65° F over a 24-hour period.

species may be found, including hickories, loblolly and shortleaf pines, black gum, and sweetgum. In low areas beech, ash, hickories, and birch may replace the oaks and at the water's edge there may be willows and alders. The Piedmont diversity is largely related to variations in the moisture content and fertility of the soils. Berry, expressing the attitude of many, remarks that:

> the present aspect of piedmont landscape has doubtless come about as a result of one or more erosion cycles. These cycles have left us with an area as complex as anyone would like to make it, yet an area which, for a layman's viewpoint, is relatively unimpressive (Berry 1980:61).

Mills, in the nineteenth century, remarked that Greenville had "short leafed pine, popular, chestnut, white, red, and Spanish oak, some curled maple, black walnut, and wild cherry" (Mills 1972:574 [1826]), suggesting that the vegetation has remained relatively stable for the past several hundred years.

Vegetation within the project area today consists of thick, knee high grasses such as broomsedge. Apparently the tract is occasionally mowed since no other undergrowth or succession growth exists in the area. Trees are relatively sparse and appear to have been planted as shade or ornamental trees perhaps 50 to 100 years ago. Kudzu is found in the extreme northern portion of the property. Around Victor Creek is the remnant of a once dense stand of cane. Very few large canebrakes remain today, but in the past they covered large areas along virtually every bottomland along Piedmont rivers, streams, and creeks.

The vegetation found around the mill village today has been completely altered from what was there both in the mid-nineteenth century and during the early twentieth century. Based on photographs provided by local residents, it appears that a tremendous variety of plants were present during the village's occupation, although virtually all of the species were domesticated. Front yards, at least during the early twentieth century, were planted in a low grass, while the rear yards appear often to have been bare, but raked.

HISTORICAL OVERVIEW OF GREENVILLE COUNTY AND THE SAMPSON MILL

Anne McCuen and Michael Trinkley

Previous Historical Archaeology Research

The Piedmont of South Carolina generally has received little attention by historical archaeology. This is perhaps best evidenced by Orser's (1988:10-20) discussions of "Southern Plantation Archaeology" in his Millwood monograph, which relied exclusively on coastal archaeological sites. The work which is available is concentrated on either military sites, such as Fort Independence in Abbeville County (Bastian 1982) and Ninety Six in Greenwood County, or individual house sites, such as the Bratton House in York County (Carrillo 1975), the Howser House in Cherokee County (Carrillo 1976), or the Gillebeau House in McCormick County (Lewis 1979). Orser's archaeological and historical research at Millwood Plantation in Abbeville County, the home of James E. Calhoun, cousin of John C. Calhoun, represents one of the few detailed investigations of an antebellum plantation (Orser 1988).

There is perhaps more information from the postbellum, but it continues to be almost exclusively oriented toward plantations and rural sites. One such example is the work at the Finch Farm in nearby Spartanburg County (Joseph et al. 1991). Urban archaeology in the Piedmont is almost unheard of. While Breedlove has conducted excavations at several sites in Greenville (Wesley Breedlove, personal communication 1992), the only published accounts are those from the Waddy Thompson Spring in downtown Greenville (Carrillo 1979) and the survey of the U.S. 221 Relocation in downtown Laurens (Payne and Hulan 1986).

It is curious that with so many of South Carolina's urban centers established before 1900 the only city in the state which has made efforts to preserve and study its urban archaeological resources is Charleston (see Zierden and Calhoun 1984). The loss of heritage in other cities cannot be measured. It is clear, however, that eventually the urban areas of South Carolina will have no collective memory of their past.

Greenville and the Sampson Mill

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 1682, the Proprietors sectioned the new province into four counties. Present Greenville County was included in the largest of these, Colleton County, which remained as Indian land until 1776 (Kennedy 1940:34). A further refinement of boundaries in 1769 saw the creation of the Ninety Six District, although Greenville (along with Pickens, Oconee, and Anderson counties) was still considered part of the Cherokee Lands. It was not until 1786 that Greenville County, taken from the Cherokee during the American Revolution, was created.

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. Mills (1972:571-572 [1826]) reports that one of the earliest settlers of Greenville was Richard Pearis or Paris. Pearis operated a trading post and grist mill on the Reedy River overlooking a 15-foot fall, near the present Bowater Company building on Camperdown Way in downtown Greenville (see also Building Conservation Technology 1981).

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 County 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. Pearis, an avid Tory, lost his mill and home to Whig sympathizers, although the county saw relatively few skirmishes. In fact, the only two events of note were at the "Great Cane Break" on December 22, 1775, and at the headwater of the Tyger River in November 1781 (Lipscomb 1991).

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 1797 Lemuel J. Alston offered a 400 acre site for the Greenville County court house and the formal organization of the area began to be recognizable. The original village, called Pleasantburg, was largely an unsuccessful speculative venture on Alston's part. Perhaps embarrassed by the failed real estate venture and a political defeat, Alston in 1815 sold his 11,000 acre holdings to Vardry McBee and left the area (Building Conservation Technology 1981:11). Virtually all of the City of Greenville can be traced back to McBee's ownership during the early nineteenth century.

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.

By 1826 Greenville was a thriving, if small, town:

> the village of Greenville . . . is beautifully situated on a plain, gently undulating. The Reedy river placidly leaves its southern borders previous to precipitating itself in a beautiful cascade, over an immense body of rocks [the site of Pearis' earlier mill]. The village is regularly laid out in squares, and is rapidly improving. It is the resort of much company in the summer, and several respectable and wealthy families have

located themselves here on account of the salubrity of the climate. These have induced a degree of improvement, which promises to make Greenville one of the most considerable villages in the state . . . . The number of houses is about 70 . . . .(Mills 1972:572-573 [1826]; see also Figure 4).

The town continued to grow through the nineteenth century, having 500 residents in 1834 and about 1500 by 1850. The 1850s represented a decade of change. Furman University opened in 1851, the first railroad was built through Greenville in 1853, and it was during this time that the South's largest carriage and wagon plant was constructed in the town (Building Conservation Technology 1981).

Greenville County, by 1850, had 13,370 white inhabitants and 6,691 African American slaves, most operating the 1068 farms scattered across the county. There were 130,727 acres of improved farm land, or about 122 acres per farm. This compares favorably with adjacent Spartanburg County and is in excess of Pickens' 78 improved acres per farm (DeBow 1854:302-305).

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

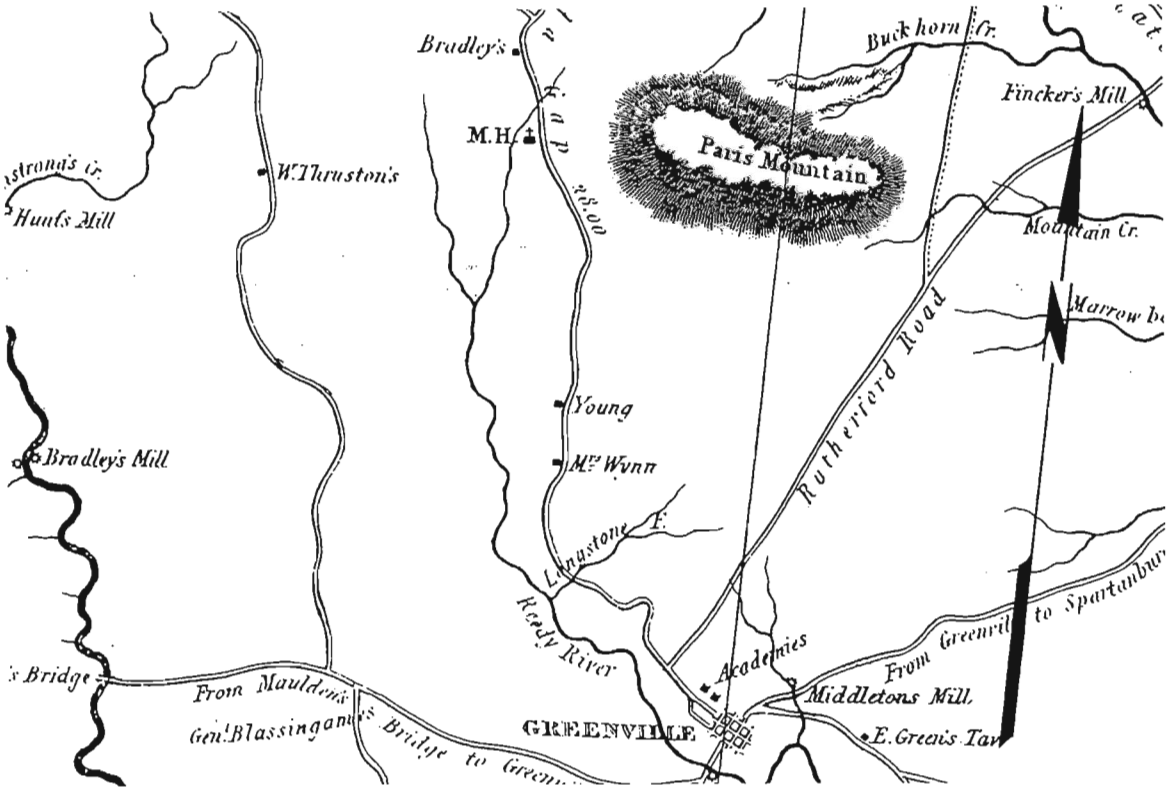

Figure 4. A portion of the Greenville District from Mills' Atlas of 1826.

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. 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.

Examining the agricultural base of Greenville, it is clear that the bulk of the farms produced subsistence, rather than cash crops, until the Civil War -- making Greenville unique in the region. While the county ranked seventh in the production of 11,074 bushels of rye and oats, it also ranked 26th in the production of cotton. Only Georgetown, Horry, and Pickens counties produced fewer than the 2452 bales from Georgetown (DeBow 1854). The only significant cash crop produced by Greenville was tobacco. With 12,505 pounds reported, the county ranked third in tobacco production for 1850 (DeBow 1854). This continued a long tradition of tobacco cultivation, in spite of low yields, poor quality, and strong competition (see Hacker and Trinkley 1992 for additional details).

Ford 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 and tobacco. 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.

The roots of Up Country industrialization may be found with the Graniteville Mill of William Gregg. Built in 1846, Gregg's mill in the Horse Creek Valley of Edgefield District was unique to the State and is probably the best known in the antebellum South. As Lupold observes:

> In a cultural context his ideas and policies at Graniteville played a major role in creating the stereotypical image of the rural, paternalistic southern mill village. . . . His company controlled the lives of the rural poor white families who moved into his picturesque wooden cottages. Such control over white operatives was possible in the South, Gregg suggested, because of the presence of potential black workers. His rhetoric punctuated the central tenet of the South's cotton-mill ideology: social as well as economic dividends flowed from industrialization. Mill villages would "uplift" the poor whites (Lupold 1989:743).

Similar events had also swept the Greenville area. For example, six years prior to Gregg's mills, Vardry McBee built a cotton and woolen factory amidst his flour mill, reservoir and paper mill about seven miles below the Greenville village on the Reedy River. McBee also built "comfortable houses" for the workers, as well as a chapel. One author has remarked that McBee, like Gregg:

> was indignant at cotton being taken to Charleston, shipped to New England, where it was spun and woven, shipped back to Charleston, then hauled back to the Greenville District, where it was sold at a greatly increased price to the same farmers who planted it (Smith 1992:154).

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" (Ford 1988:372). Yeomen and planters both rose to defend this common ideal.

The Civil War had little military impact on Greenville and no significant battles were fought in the County. Even the Confederate fort hastily thrown up near the eventual location of the American Spinning Company mill village just northwest of Greenville was abandoned before it saw any action (Richardson 1980[1930]:86). The war did, however, change Greenville's 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 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, seed, 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. Afterwards the population of owner-operators in the Piedmont remained at about 30% (Orser 1988:60).

In 1884 the labor system of Greenville County was described as encompassing either cropping

or a rent system:

> Where money is paid the terms, strictly speaking, are monthly payments, but the custom that prevails most generally is a running account, with settlement at the end of the year (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 Greenville County and the distance cotton would be hauled to a gin never exceeded 1½ miles. The report indicated that freedmen engaged in agriculture "rarely make more than a bare support and in the end they get into debt and never pay out" -- the legacy of poor agricultural training, the inability to obtain assistance, and the effect of Jim Crow laws (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).

In Greenville, however, the news was not planting cotton, but rather weaving it into "golden" yarns and fabrics. In 1872 Greenville, recovering from the economic collapse of the Civil War, received its second railroad. Between 1874 and 1875 the Camperdown Mill was built. By 1888 there were eight cotton mills in Greenville County using both steam and water power, with capital of nearly a million dollars and an annual output in excess of two million dollars. These included the Piedmont Mill (on the Saluda River about 10 miles south of Greenville), Camperdown Mills 1 and 2 (located in Greenville), Batesville (on Rocky Creek about 10 miles east of Greenville), Pelham Mill (on the Enoree River 11 miles east of Greenville), Reedy River Factory (on the Reedy River 6 miles southeast of Greenville), Fork Shoals Factory (on the Reedy River 12 miles south of Greenville), and Huguenot Mills (on the Reedy River in Greenville). Even at this early date the focus was on expanding the textile base of the county:

> there is hope of the material advancement of the county by the development of the many fine water powers along the streams of the county that are standing invitations to capitalists who desire to invest in manufacturing enterprises (The News and Courier 1884:n.p.).

A historian clearly expresses the fervor which accompanied cotton mills:

> The "Cotton Mill Campaign" of the 1880s approached the status of a religious crusade, especially in the Carolina piedmont towns along the northern-owned Southern Railway: Charlotte, Greenville, and Spartanburg, among the more prominent participants in the "Campaign." "Next to God, what this town needs is a cotton mill," bellowed one Piedmont preacher, and a Salisbury, North Carolina, evangelist informed his listeners that "the establishment of a cotton mill would be the most Christian act" they could perform. Southerners evidently took heed; by 1900, one half of the South's looms were within a hundred mile radius of Charlotte, and the total number of looms in the South grew from 11,900 to 110,000 between 1880 and 1900 (Goldfield 1982:123-124).

The collective hope was that heavy investment in cotton mills would provide the jobs that Greenville (and other counties) so desperately needed, more effectively use the region's primary agricultural product (cotton), and would draw producers in related manufacturing and service fields to the region.

In turn, the rapid urbanization brought about by the concentration of workers would create or increase the demand for locally made goods, as well as for agricultural, dairy, and meat products -- all resulting in a healthier economic climate and prosperity -- at least for the wealthy.

As will be discussed below, the social environment of the Piedmont contributed to the distinctive character of its industrialization, especially at its mills. Because mills were often constructed either in rural areas, or in areas which were not yet able to support truly urban growth, the mill owners had to provide housing for the workers. This, coupled with other aspects of "welfare work" were intended to attract workers to the mills from the countryside. It is ironic that the relative isolation of Southern mills, when compared to their Northern counterparts, is what created the comprehensive pattern of paternalism which, in turn, assisted the owners in thwarting unionization. Also beneficial was the threat of black labor, just as effective to break unionization efforts in the early twentieth century as it was to control poor whites in the antebellum.

Consequently, mill villages remained, according to one historian:

> remarkedly homogeneous in cultural and religious heritage, race, and ethnic origin. Although they [the operatives] have been described as a transient group, they usually migrated only to another mill village, similar to the last in social structure and economic opportunity (Oates 1989:730).

Just as textiles began expanding into the Piedmont, the technology (especially in spinning) was sufficiently advanced to allow extensive use of child labor. Even when laws were enacted in other states, the South strongly resisted. When age and hour laws were enacted in the South, they were noted for their inadequacy and lack of enforcement. For example, an act introduced in 1905 to establish a 10-hour labor law in cotton mills was strongly fought in the South Carolina legislature. At that time there were 130 cotton mills with 125,000 operatives, 30,000 of which were children under the age of 15 and an additional 35,000 of which were women. One proponent of the reduced working hours observed:

> everything the mills do is paraded before the public and this Legislature in bright colors. They tell you of the schools and churches they have built. I admit this is commendable, and in behalf of the people, I sincerely thank them, although it is nothing more than charitable, right feeling people should do for their unfortunate fellow beings (Speech of Representative G.L. Toole of Aiken County in defence of Bill Number 8).

The employment of entire families continued, however, entrenching mill villages in the Southern landscape. One informant revealed beginning work at the American Spinning Company mill as early as 7 years old, while another indicated that she was working at least by the age of 16.

More significantly, the process "delayed the development of a skilled and literate non-farm labor force, an essential resource for the attraction of high-wage, capital-intensive industry" (Oates 1989:730). In spite of the pervasiveness of the textile industry, it is important to realize that South Carolina (as well as the South as a whole) remained rural and agrarian. For example, in 1900 only 4% of the people were employed in manufacturing jobs, the remainder were largely rural and agrarian, steadfastly maintaining their ties to earlier times.

The property which would eventually become the site of the Sampson mill village was part of two South Carolina grants. One to William Giles (Greenville County RMC, DB 7, p. 348 and another to Baylis Earle, Jr. (Greenville County RMC, DB 7, p. 1). At least a portion of the tract was probably held for only a short time since Earle sold 300 acres to Henry M. Wood in 1800 (Greenville

County RMC, DB 7, p. 1). The small creek which today borders the tract to the east is shown on the plat of the property as Pidgin Rust, or Pigeon Roost, a common term applied to the thick canebrakes of the Up Country (Wesley Breedlove, personal communication 1992). By 1801 Wood sold the 300 acre tract to George W. Earle (Greenville County RMC, DB F, p. 348). It was held by Earle until the division of his estate, at which time a 345+ acre tract, including what would eventually be the Sampson mill village, was devised to Eliza R. Smith. In 1834 she sold a 345 acre tract to Elias D. Earle (Greenville County RMC, DB R, p. 228).

As a result of legal action begun in 1853, the tract was sold by the Master in Equity in 1863 to E.S. Irvine for $4155. Excluded, however, was a half acre enclosed and reserved as a graveyard for the Earle family (Greenville County RMC, DB Z, p. 910). Curiously, the existing cemetery is far less than the originally reserved half acre. A deed from this transaction also shows the existence of Buncombe Road. Within two weeks Irvine sold the property to H.P. Hammett for $15,000, reflecting a healthy profit, albeit in Confederate funds (Greenville County RMC, DB Z, p. 795).

Hammett, however, died in 1891 and the property was sold by his estate in 1895 to O.H. Sampson & Company for $6230. Oscar Sampson was a New England native and O.H. Sampson & Company consisted largely of Boston investors (Arnold 1915). Sampson had established the Camperdown Mill 1 in 1873 and in 1882 established The Charleston Manufacturing Company, with the intention of using entirely black labor to operate a cotton mill. The plan, however, failed although Sampson continued to have a very active interest in cotton, as evidenced by his involvement in what would eventually become the American Spinning Company (see Andrews 1987:59).

The company appears to have lost no time in beginning the construction of the mill. An April 1895 issue of a Greenville newspaper reported that:

> The Sampson mill has the roof on. And it's a beauty, too, from a cotton mill standpoint. It is probably the most modern mill of the slow-burning type in the South. In fact there are no mills either North or South that are superior. The roof is also a novelty in this section. It is a pitch and gravel roof. The building looks just like a big greenhouse there is so much glass in it. It's a fine "ad" for the city, too, as it is on the Southern Railway, and must attract the attention of every one who rides over that road in day time. The picker room will be brick and that is nearing completion. In a very short while work will commence on the tenement houses, and by the time we are ready to celebrate the Declaration of Independence a neat village will have been added to our city (*Greenville Mountaineer*, April 3, 1895).

The original mill (later referred to as "Mill No. 1") was a two-story frame structure. The "tenement houses" referred to are the mill villages which became synonymous with the textile industry. Constructed close to the mill and the watchful eye of the company, these villages were intended to be self-sufficient -- complete with schools, educational facilities, churches, and stores -- and largely maintained and controlled by the company. Consequently, the mill villages represent distinct and insular communities. The villages were typically laid out in a grid pattern, made to fit available lands. The operative's houses were architecturally based on traditional New England antecedents -- often the "saltbox" house organized as duplexes. The mill owners took a paternalistic attitude toward the workers to ensure the steady supply of labor necessary for the successful operation of the mills.

The Sampson mill was the first of many in the Greenville area to be designed by the firm of Lockwood Greene (operated by Stephen Greene) and Joseph E. Sirrine, a civil engineer employed by the firm. This company was responsible for the original work, as well as expansion work in 1900 (including both the mill village and the construction of a second mill) (Lincoln 1960:179).

By June of 1895 the mill houses at Sampson had been laid out. A newspaper report indicated that a James Doctor Marshall Dillard of Gower & Dillard "was the successful bidder and gets the contract for all the houses" (*Greenville Mountaineer*, June 15, 1895). About three weeks later 10 houses were built and the foundations for the others were laid. The firm of Dillard and Gower was in business at the corner of Hampton and Echols streets in Greenville at least by 1893, when the business is shown on a Sanborn Insurance Map. Two years later Dillard's partner, T.C. Gower, drown in the French Broad River. Dillard continued operating under his own name and the 1896 *Greenville City Directory* indicates that he was a contractor doing business at 1003 West Washington Street.

The earlier estimate of a July 4 opening was overly optimistic and in September:

> the finishing touches of paint are being put on the tenement houses. They are painted a french gray and trimmed with an olive green. The superintendent's houses are up near the Reubin Smith place (*Greenville Mountaineer*, September 4, 1895).

The paper indicated that the Superintendent, a Mr. Wright, hoped to have the mill opened in two weeks. Wright, who lived at 57 Sampson Hill, apparently served as Superintendent until 1899 when he became a partner in the general merchandise firm of Shippy & Wright, located not far from the mill village on Buncombe Road. That same year he moved to Clinton, taking a position as Superintendent of the Clinton mills (Crittenden 1903:67).

By October 1895 the mill was reported to have 45 cottages (*Greenville Mountaineer*, October 19, 1895), although the 1896 *Greenville City Directory* reveals up to 62 heads of households working in the mill (Table 1).

On October 10, 1895 the O.H. Sampson & Company sold the 31.15 acre Sampson mill property to the American Spinning Company for $100,000 and O.H. Sampson & Company was dissolved the following year. The tract include the property essentially from Buncombe Road northerly to the Earle family cemetery, but not beyond, suggesting that this represented the initial village area. The deed specifically mentions that the transaction included:

> the manufactories, buildings, boiler houses, erections, offices, boilers, engines, machinery, shaftings, fixtures, implements, utensils and property of every kind and necessary to its operation as a Cotton Manufacturing establishment (Greenville County Clerk of Court, DB ZZ, p. 570).

A plat, dated November 22, 1894, by J. E. Sirrine was not recorded and could not be identified during this initial investigation. In 1897 a plat of adjacent areas, however, does show the property of the American Spinning Company, the Earle graveyard (which is on the corner of Buncombe and Hammett [or Morris] streets, occupying a larger area than is present today) (Greenville County Clerk of Court, DB HHH, p. 836).

James H. Morgan, president and treasurer of the new company, was born May 9, 1848. Although having a rural farm background, he joined the mercantile firm of T.W. Davis in 1867. His success in this venture earned him a partnership and for many years the firm was known as Davis and Morgan. Eventually Davis sold his interest to Morgan and the firm became known as James H. Morgan & Brothers. In 1898 a fire destroyed the business and Morgan began to invest heavily in the textile industry. He retired from the mill in 1926 and died in 1928 (Richardson 1980:283; see also *Greenville News*, January 11, 1928).

At the turn of the century the American Spinning Company, originally using the equipment

from the dismantled Camperdown mills, had capital of $600,000, 35,000 spindles, and employed upwards of 800 hands (Crittenden 1903:69). Thomas A. Sizemore was apparently the Superintendent during much of the early twentieth century (Crittenden 1903:67). A four and five-story brick cloth mill (referred to as "Mill No. 2") was built between 1900 and 1909 to complement the original cloth mill. Additions continued to be made after the First World War (*Greenville News*, July 8, 1991). In 1900 American Spinning purchased an additional tract from William F. Kennemore for the first expansion of the village (Greenville County RMC, DB GGG, p. 170).

In 1907 the mill had grown to over 40,000 spindles operated by 700 employees. The primary products were sheeting (varying in width from 35 to 60 inches) and ply yarns. An account of that year

Table 1.
First Heads of Households at Sampson Hill in 1896

Albritton, Elizabeth F.
Alverson, James M.
Bailey, Alfred
Bain, John
Bain, Eveline and John
Bain, Erwin
Barton, Massina
Bellew, Meredith
Bishop, Simpson
Bridges, Edward
Brooks, Asbury
Bruce, Mary (widow)
Buff, John T.
Coggins, James
Cooksey, Elias A.
Cox, James J.
Davis, James
Day, Lawrence
Donald, J. Matthew
Farmer, William
Fletcher, J. Wylly
Floyd, J.B.
Forrest, Franklin
Gentry, Samuel
George, Metts
Gilliam, John
Gilreath, James
Grumbles, Richard C.
Hall, William
Hall, Smith
Harris, Sadie (widow)
Harrison, James A.
Henderson, William H.
Hollingsworth, Missouri
Holman, Charles E.
Jones, Moses
Kilders, Tance
Kinnamore, Benjamin F.
Lindsay, Morgan
Lollace, Camila, Mrs.
Massey, Benjamin F.
McCall, Green C.
Merrell, Joshua
Moody, Rhoda (widow)
Moore, J. Stephen
Morgan, Millie (widow)
Odum, James K.
Pettit, Alice (widow)
Pinson, Benjamin
Pittman, Mack D.
Quinn, John W.
Rogers, Neila, Mrs.
Simmons, Mary (widow)
Smith, William F.
Smith, James R.
Smith, Minda (widow)
Staten, Andrew R.
Staton, Thomas
Summey, John
Surrett, Joseph P.
Tate, John T.
Wadkins, John
Wright, Isaac W., Super.

remarked that the village, with 2,000 people:

> has two churches, one of the Methodist and the other of the Baptist denomination. The mill corporation contributes liberally to the support of both these churches; in addition to supplying fuel, light and keeping the property in good repair.
>
> The American Spinning Company has a splendid school building, which cost about $12,000, erected entirely by funds contributed by the corporation. It contributes annually between $500 and $800 to the support of the school, which employs three teachers.
>
> The public funds are generally the same -- from $500 to $800 -- as are the contributions of the mill corporation for the support of the school in the mill village. Further in the way of "Welfare Work": the American Spinning Company has a library, bath rooms and a large auditorium, 50 by 100 feet, of which are in the building, and the library, in which there are games and other amusements, is especially well patronized. The company has a base ball park, and a large and beautiful woodland park for the pleasure of its employees. During the winter season a number of theatrical amusements are arranged for the pleasure of the operatives (Kohn 1907:152-153).

By 1911 there were 1,056 looms, 52,416 spinning spindles and 5,000 twister spindles and the mill had a annual output of 5,000,000 pounds. Also present was "a perfectly equipped Mill School, taught in a large brick building," library, "Barber Shop with baths," and two churches. There were 700 employees, although the mill population was 2000 individuals (including 355 children) in 1907 (Anonymous 1907:459; Anonymous 1911:28).

The main portion of the American Spinning Mills is shown on the 1913 Sanborn Insurance Map of Greenville, although the associated mill village is not incorporated in the map. Earlier maps (dated 1902 and 1908) do not show this area of Greenville.

In 1920 the Sanborn maps show a portion of the mill village, as well as the mill complex. The structures include both one and two story duplex dwellings, the school, the village office, and at least one superintendent's house. The location of the Earle cemetery and the associated church is not shown (Figure 5). A photograph from 1908 shows portions of the village and can provide additional information on the architecture (Anonymous 1911:28). Portions of this photograph are reproduced here are Figures 6 and 7. Illustrated are neatly maintained rectangular houses of four to six bays and saltbox roofs. The single chimneys are located on the interior rear of the structures and the porches are full-width, single story with shed roofs. While much less common, there are also structures with gable front roofs. The photograph provides an *impression* of relatively neat, but vegetated rear yards, occasionally associated with sheds or garages. Utility poles, introducing electrical lines to the rear lot lines, are visible in the photographs.

Parts of this village are also shown by the 1928 Sanborn maps, although the South Caroliniana Library does not have the necessary volume for complete coverage. The Greenville County Redevelopment Authority has provided a reprinted tax map showing a portion of the village. While at this time the date of the map is unknown, it appears to postdate the 1930s (Figure 8). Unlike the Sanborn maps, which were very accurate because of their intended use for insurance underwriting, this tax map was intended only to provide a generalized picture of the village. House locations are mere approximations and the sizes are standardized. While very useful for illustrating changes in the village over time, considerable care must be exercised when using the map for more detailed analysis.

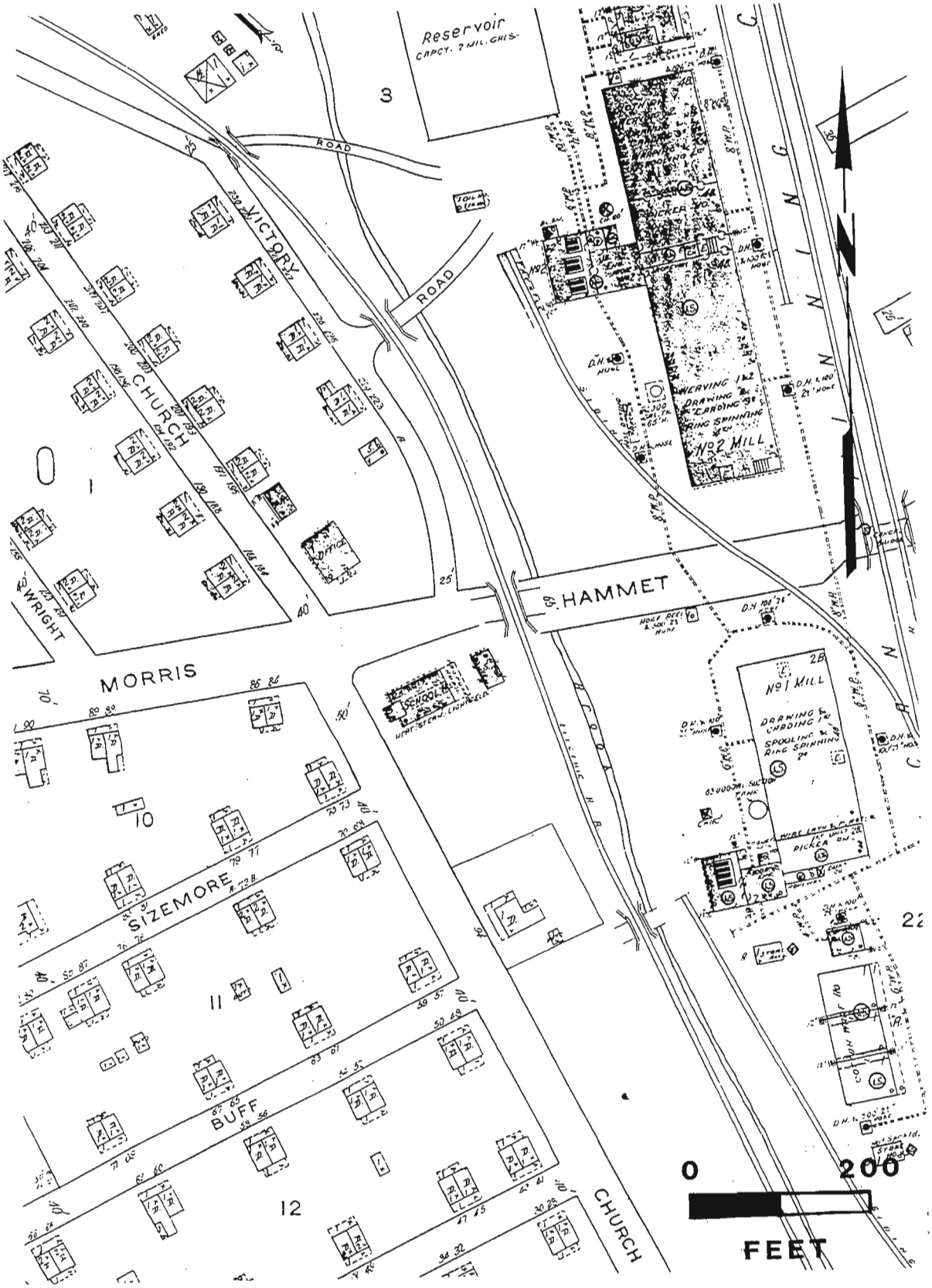

Figure 5. 1920 Sanborn Insurance Map of the study area.

Figure 6. Southern portion of the Sampson village in 1908.

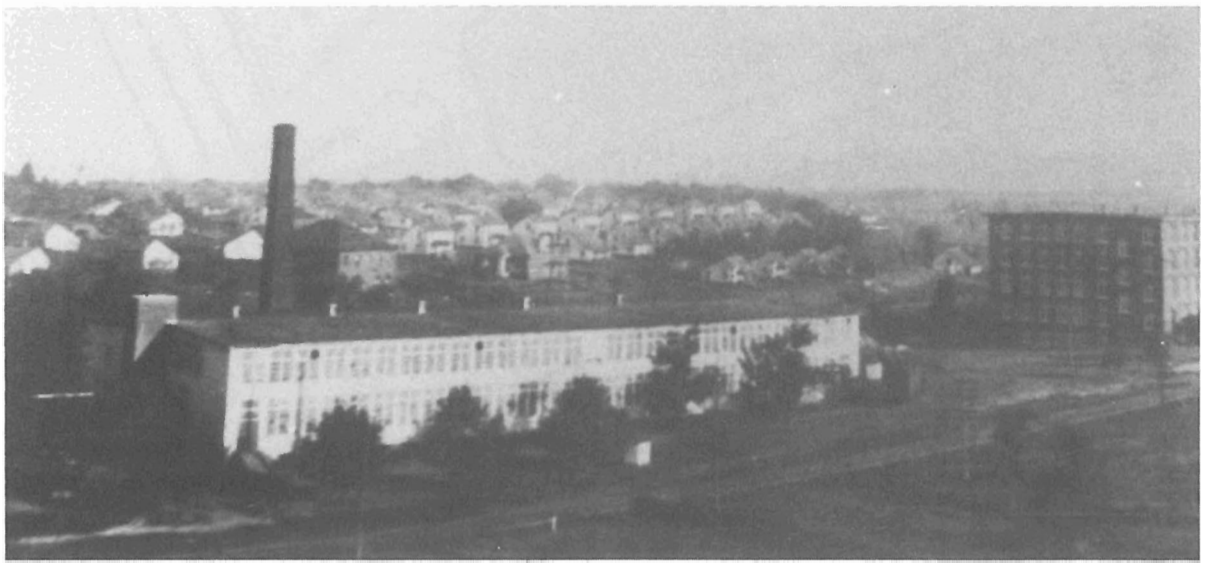

Figure 7. Northern portion of the Sampson village in 1908.

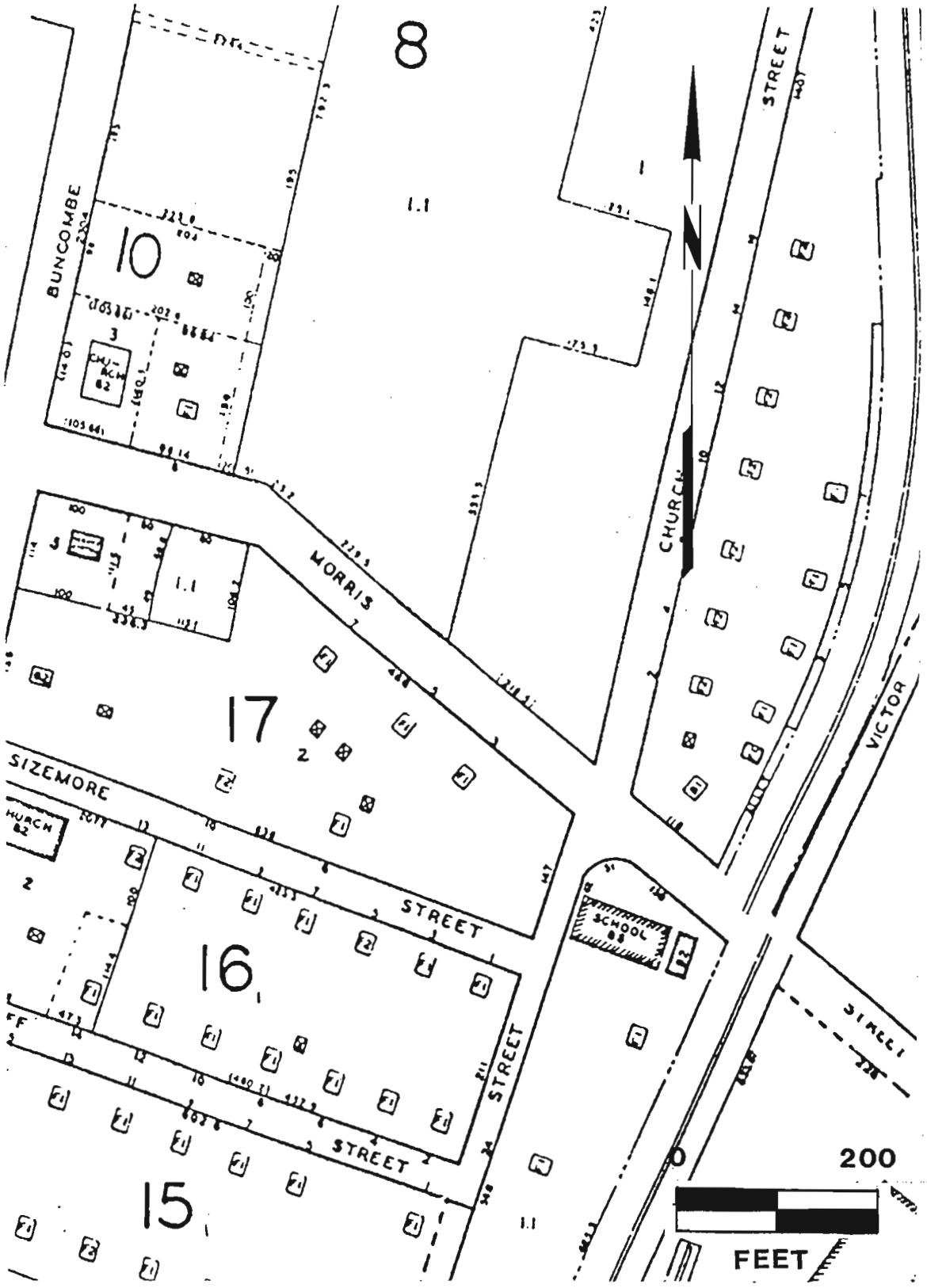

Figure 8. Greenville County tax map of the study area from the 1930s.

In 1923 the third and final expansion phase of the village was undertaken, with the American Spinning Company purchasing an additional 42.5 acres to the north of the original village from the Irvine family (Greenville County RMC, DB 89, p. 268). A brief newspaper account mentions American Spinning building "some new cottages in the village," although it is unclear whether this represents expansion or replacement (*Greenville News*, January 29, 1928).

In 1928 American Spinning Company provided the first of several easements to the Greater Greenville Sewer District Commission, indicating that sanitary sewers were just being introduced to the village (Greenville County RMC, DB 146, p. 218). Additional rights-of-way were granted in 1934. In 1935 American Spinning deeded, "that system of sewer pipes *heretofore constructed* and now owned by the grantor extending through its mill village in County near City of Greenville [emphasis in original]" to the Parker Water and Sewer District (Greenville County RMC, DB 172, p. 195), suggesting that while easements were provided earlier, the actual operation and ownership of the sewer remained in the hands of the mill.

Even before sewers were provided to their employees, American Spinning was looking out for their spiritual well-being. In 1901 the company provided a lot to the deacons of the newly formed Talley Baptist Church. This lot was described as being situated in "what is known as Sampsonia near the City of Greenville" (Greenville County RMC, DB HHH, p. 230). This is the only mention of the village having a specific name. By 1906 the company provided a new location for the church, on Buncombe Road. Indicative of the power of the mill, the deed specifies that the lot would be used for no other purpose and that the company "shall have the power to control the uses of the said Church and when in their judgement it is to the best interest of the said company to abandon or discontinue all services therein" (Greenville County RMC, DB SSS, p. 364).

American Spinning Company was dissolved in 1936 and the plant was acquired by Florence Mills on October 8, 1936 (Greenville County RMC, DB 186, p. 352). In 1953 the property was acquired by Cone Mills (Greenville County RMC, DB 469, p. 523). Cone Mills continued operation through 1990, although the village was apparently abandoned some time earlier.

The late history of the American Spinning Company is imperfectly known, in spite of this research and the numerous individuals who visited the site. For example, in 1934 the American Spinning Company operations were only temporarily stopped by the September 1 strike call of the United Textile Workers. As the *Greenville News* observed, Greenville was in the "eye of the hurricane," and was relatively calm, especially when compared to many other areas were both union and anti-union violence marked the strike (Ashmore n.d.:149).

Examination of the city directories revealed that there was tremendous movement from house to house during the later periods of the village's history. For example, between 1931 and 1967, #7 Morris Street had at least six residents, while #7 Buff Street had 11 different residents. Informants revealed that residents would move as families grew or better housing became available. It is also clear from both the Sanborn Insurance Maps and the informants that a variety of house types existed in the village and that some re-building or additions occurred through time. It is also clear that duplexes could be occupied by one family. One informant revealed that American Spinning charged its employees 25¢ per room per month, suggesting a rental rate less than many other mills in the Greenville area where the average rate was 75¢ a room (Anonymous 1907:443).

The Sampson village was active through the Second World War and into the early 1950s. Over the next decade, however, the village ceased to be a central theme in the lives of the workers. On Church Street only two houses were occupied in 1961, with none remaining in 1962. On Wright Street the houses were deserted by 1964. In 1965 only three houses were occupied on Buff Street. All of the

houses on Sizemore were abandoned by 1968 (based on examination of the *Greenville City Directory*). The houses, allowed to fall into a dilapidated condition, were eventually torn down by Cone Mills, although apparently the lumber from several were salvaged by residents.

The American Spinning School, a landmark in the village and one of the oldest mill schools in Greenville County, was demolished by Cone Mills in early 1959. The caption accompanying a photograph of the school noted that it was built between 1904 and 1906 (*Greenville Piedmont*, January 31, 1959).

Jacquelyn D. Hall comments on the changes in Southern society which brought about the disappearance of the mill villages:

> Company towns had given Southern mill owners unique and formidable powers. But the mill village system was never a foolproof instrument of labor control. The fact was driven home in the labor upheavals of the 1920s and 1930s, even as automobiles, and labor surplus, and New Deal legislation undermined the system's economic rationale. The Fair Labor Standards Act diminished the South's competitive advantage, while New Deal agricultural policy pushed more farmers off the land, permanently ending the necessity of providing housing in order to attract a scarce labor supply. Burlington Mills began selling its village in the wake of the General Strike, and other firms followed suit. With the aid of improvements in highway transportation, which they helped promote, southern mill towns gradually dismantled their villages and hired workers from the surrounding countryside or relocated to rural industrial parks (Hall et al. 1987:356).

A Synthesis of Mill Life

The dangers of presenting a "syntheses," especially of the Sampson village, include incompleteness of data and the differences of opinion which can affect interpretations. No formal oral history project was undertaken during this research, so the information gathered may be superficial and many issues were not covered (since there was no ability to direct the interviews). The issue of opinion is especially interesting. While mill village life is often portrayed in less than pleasant terms, the vast majority of previous residents visiting the site area remarked on the "good feelings" they had about the village, about how they knew all of their neighbors, and about "how good life was." One commented that "we didn't have much of anything, but neither did anyone else and we all made out good." The first comment from virtually all of the previous residents was the location of the school (not any other feature), indicating the tremendous impact education had on the community as a whole.

An effort has been made in this synthesis to balance the informants comments with historical data. An equal effort has been made to emphasize known elements of the Sampson village, while filling in the gaps with "typical" mill village information. Additional research, which is desperately needed, would certainly fill in many of the gaps evident during even a causal reading. Hopefully, a formal oral history program will be established before the information is lost.

As previously discussed, the promise of steady work and housing which was maintained by the mill attracted a large number of landless whites (mostly tenants and sharecroppers) to leave their rural homes at the turn of the century. These people had been living in impoverished conditions on small farms due to depressed economic conditions surrounding agriculture. Although there were few problems in attracting local labor, many mill owners advertised in neighboring states when shortages arose. It became the philosophy of mill management that "welfare work" would entice potential

laborers. The benefits the mill offered were company-sponsored activities such as schools, churches and recreation facilities. In addition, health care facilities were eventually constructed (Stayner 1976).

Housing, provided by the mill at a nominal rent, was located adjacent to the mill so workers would loose no time getting to and from work. For example, the Sampson village was only a 5 minute walk from the gates of the mill. In fact, the mill even today dominates the landscape (Figure 9). Rent was charged by the room, varying from no charge up to one dollar a month. It appears that the average rental was 50 cents per room, although in the Greenville area rooms were rented at 75 cents. An informant revealed that rooms in the Sampson village were only 25¢ a month, perhaps reflecting either the dire need for employees faced by the mill or perhaps its less attractive location. The typical houses:

> are tightly built, have ample windows and doors, have a ten-foot ceiling, are generally weatherboarded and ceiled with wood on the inside, and there is no occasion for crowding, each of the houses generally occupying a lot covering fully one-quarter of an acre and if there is any desire for more room it can be gotten (Anonymous 1907:443).

At the Sampson village one informant remarked that a variety of houses were available and that even the duplexes had doors between the two halves so they could be opened up for very large families.

Most of the informants recalled the use of sewage holding tanks on the back porches, with trucks coming occasionally to empty the contents. One individual recalled that before the holding

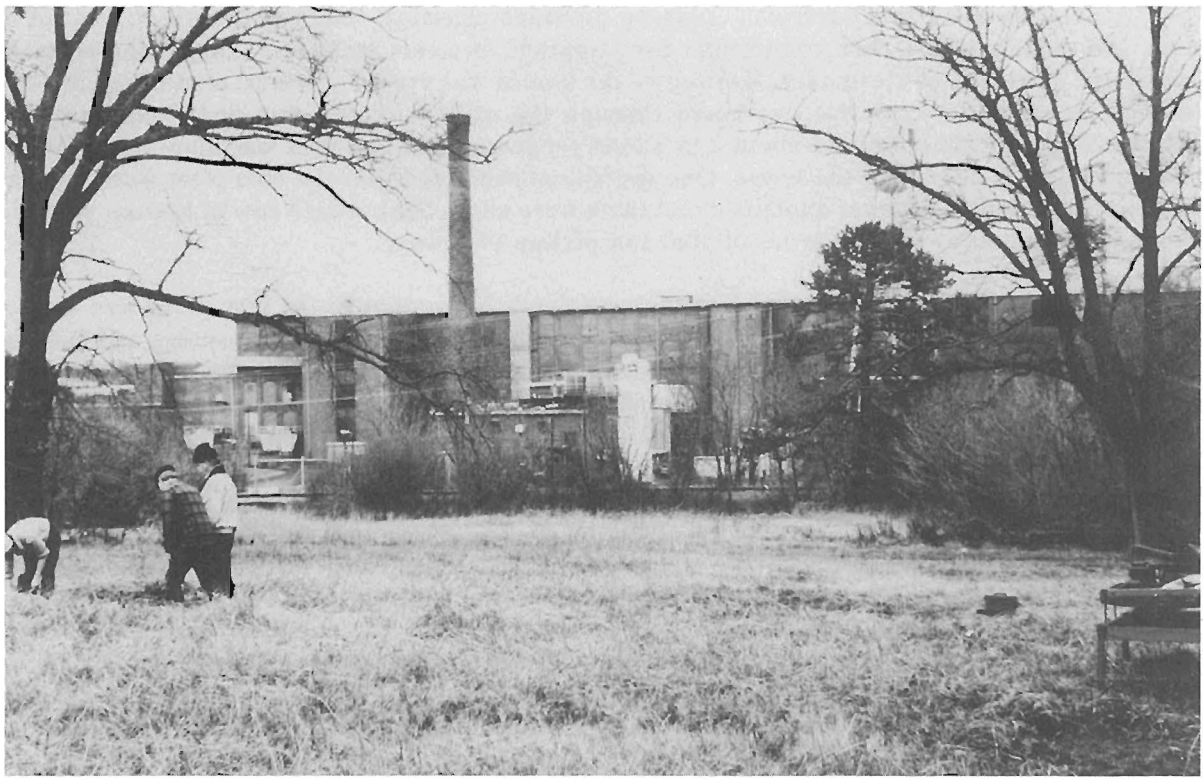

Figure 9. View of American Spinning Mill 2 from the Sampson village, looking east.

tanks, the village used privies, located toward the back lot line. A modern sewer system was apparently not available until the 1930s and even then not all houses were connected. One individual remembered not getting a modern bathroom until about 1960.

This is consistent with the sanitation typically found in mill villages. For example, a survey of four Spartanburg County mill villages in 1916 found the method of human excrement disposal varied from surface privies, to pails, to a few houses connected to a sewer system. Most, however, received very low sanitation marks. Many villages also had a relatively high incidence of typhoid (Goldberger et al. 1920a).

The residents of the Sampson village all recalled piped water, although it is uncertain when this convenience was introduced. The 1916 survey of four Spartanburg County mill villages found that water was rarely obtained from the mill, but was commonly taken from dug wells or pumped from drilled wells (Goldberger et al. 1920a:1709). It is likely that the early Sampson village also relied on wells for water, although none of the informants could recall their use.

The residents of the Sampson village, recalling life primarily in the 1930s on, mentioned that trash and refuse was carried to one of several mill dumps. One photograph held by a Greenville resident of his grandfather's yard at the Sampson village shows a trash can, clearly evidence of domestic trash collection. Other residents recalled that trash was often burned behind the houses, in barrels. Earlier, however, Goldberger et al. (1920a) found that what the termed the "domestic environment and habits of the local population" were universally poor, suggesting that trash disposal, like other aspects of the sanitary condition, improved dramatically in the second quarter of the twentieth century.

At least by the 1930s American Spinning provided electrical lines off the street, behind the houses. Individuals where then responsible for "tapping" into this main line, suggesting that only minimal use was made of electricity. Heating of the homes was provided almost exclusively by coal. Residents recalled that coal was purchased through the mill, with the cost deducted from their paycheck. The typical house used about 2 to 3 tons per season and this load was dumped in the rear yard and hauled as needed to the house. One individual remarked that the coal piles were frequent play areas for children. Another explained that there were alleys behind each row of houses, servicing the rear yards and allowing deliveries of coal and pickup of sewage.

Many of the informants mentioned the prevalence of gardens in the rear yards and it seems that these gardens were depended on for a source of fresh vegetables during the spring and summer. One informant remembered a neighbor who converted a garage behind their house into a chicken coop, although the owning of poultry was a rarity in the village. The mill provided a cow barn and pasture (to the north of the project area) for the operatives, but all of the informants who visited the site remarked that few residents owned cows. Food was not a common topic of conversation, although one individual recalled that the mill provided each child in the village with a sack of fruit at Christmas.

Goldberger et al. (1920b) provide additional, albeit generalized, detail concerning food usage in nearby Spartanburg mill villages studied in 1916. Not unexpectedly they found that lower income workers (those earning under $6 per adult male per 15-day period; compared to the higher income group, with wages in excess of $14 per 15-day period) purchased very small quantities of all meats (except salt pork), green vegetables, fresh fruits, eggs, butter, cheese, preserved milk, lard, sugar, and canned foods. Those with the lowest incomes in the village purchased the largest amounts of salt pork and corn meal -- staples of the low income Southern diet. Dried peas, beans and fruit were typically available even to those in the low income brackets, as was rice and bread.

Locally produced fresh meats became uncommon after January. Because swine were also slaughtered in the autumn and winter, locally produced pork (other than salt pork) was uncommon in the spring and summer food supply. The availability of meat from local vendors and stores varied from village to village. Informants indicated that there was no American Spinning Company store, at least in the second quarter of the twentieth century. It is possible that some meat would have been obtained from local farmers or from stores, although this tended to be costly.

Goldberger et al. (1920b:33) found the number of households with gardens also varied tremendously from village to village. Where present, they were virtually all planted very late in the spring, because of the long work hours and shortage of daylight after work. Consequently, the typical garden was a late summer producer. Curiously, there is no mention, either in the historic accounts or by the informants, of canning the vegetables raised in the gardens.

Table 2 provides a summary of the approximate caloric value of various foods in high and low income groups. The diet revealed, while not particularly attractive today, was fairly typical of rural Southern populations. The low income workers obtained small quantities of protein and most of that available was in the form of cereals, peas, and beans.

Although the working conditions were often poor, the hours long, the wages low, and young children often exploited, life in the mill village was thought to be a great improvement over the living conditions that most workers had formerly led in the rural areas. Prior to the labor movements of the early twentieth century and unionization, social life was greatly restricted by the long working hours. The system of "shift work" displaced families from enjoying activities together when they had time off. Once labor laws were enacted and maximum working hours were set, many social and recreational

Table 2.
Approximate Caloric Value of Foods Among High and Low Income Mill Workers (adapted from Goldberger et al. 1918:947)

Groups of Foods	High Income	Lower Income
Meats (exclusive of salt pork), eggs, milk butter, cheese	762	639-270
Dried and canned peas and beans (exclusive of canned string beans)	126	113-123
Wheaten flour, bread, cakes and crackers, cornmeal, grits, canned corn, rice	2162	1752-2082
Salt pork, lard, and lard substitutes	741	673-745
Green and canned vegetables (exclusive of canned corn, green and canned string beans, and fruits of all kinds)	131	60-71
Irish and sweet potatoes	55	46-53
Sugar, syrup, jellies and jams	290	205-217
All foods	4267	3288-3836

programs were started by mills. The 1907 *Handbook of South Carolina* illustrates through pictures and words the improvements enjoyed by mill workers from the move from their "Primitive Mountain Home" to the mill village. Pictures of cotton mill families, school children at recess, operatives at the bowling alley and at a mill sponsored fourth of July celebration are shown (Anonymous 1907).

Although the provision of social and economic needs by the mill company, including employment, housing, churches, schools, recreation, stores, and health facilities, gave them control over village life, mill families generally improved their own existence and provided opportunities to their children which might not have been possible in their former isolated rural environment (Historic Preservation Consulting 1990).

EXCAVATIONS

Natalie Adams and Michael Trinkley

Strategy and Methods

The initially developed research strategy was to examine two structures -- one worker's and one supervisor's house. Only one supervisory structure was thought to exist in the project area, based on the examination of the available insurance and tax maps which showed a larger structure, isolated from the remainder of the village, exhibiting a different floor plan. This assessment was confirmed by additional historical research and the accounts of those visiting the site. The availability of only one such structure limited our options of choice. Unfortunately, the area of this supervisor's structure appeared to be disturbed, having been extensively used by indigents and exhibiting a large quantity of recent debris. In addition, the lot is situated in a low area adjacent to a creek. While it is curious that such a low lot would be used for a supervisor, one individual who visited the site had photographs which showed portions of this structure in the background. It was clearly different from the others and was elevated about 6 feet off the ground on brick piers (apparently to eliminate the flood risk).

The large quantity of rain at the beginning and throughout the project caused the supervisor's house area to flood. Based on this flooding and the disturbance to the site, excavations at this structure were abandoned and a second worker's structure was chosen for excavation. This approach, while not allowing very useful comparisons to be made among village occupants of clearly different social and economic status, did allow the comparison of two workers of similar perceived social and economic status. This comparison, incorporating even a sample as small as two, is useful in establishing the range of variation which may be expected at similar sites.

The two operative's structures were selected on the basis of a variety of criteria, including ease of access, surface indications of in situ remains and limited or absent disturbances, and the availability of reconnaissance level information. It was not possible to select either structure on the basis of intensive historical research or the availability of oral information, since that information was not available at the initiation of the project. This approach may certainly be criticized as failing to incorporate the widest possible data base. On the other hand, additional historical information was obtained for both structures during the course of the field work. Oral informants also provided additional insight into the various neighborhoods. In so far as the selection criteria cannot be obviously associated with any known social or status indicators and the section was guided by opportunistic factors, it is likely that this process provided a reasonably unbiased sample of the operatives' housing. Our recommendations for additional work, however, do recognize the need for further systematic and unbiased data collection over the entire site.

The first excavation area, designated as Structure 1, was situated on the west side of Church Street, about 180 feet north of Morris Street. Reference to the 1920 Sanborn Insurance Map (Figure 5) suggests that Structure 1 was a two-story duplex designated as 188-190 Church Street. Curiously, no structures are shown in this area on the ca. 1930 tax map (Figure 8), although houses remained in the vicinity into the late 1950s. This was originally identified as Structure 8 during the reconnaissance survey (Adams and Trinkley 1992a).

The second area, designated as Structure 3 (Structure 2 being the supervisor's house which was not examined), is situated on the south side of Buff Street, about 180 feet west of Church Street. This structure is shown on the 1920 Sanborn map as a single story duplex with the address of 50-52 Buff Street. The later tax map shows it as 5 Buff Street. The first *Greenville City Directory* to provide information about the American Spinning Mill village is 1931. At that time only one person, Samuel Alexanders, a weaver, was listed as living in this structure. This suggests that either one half of the duplex was vacant or that Alexanders was using both sections. From 1933 through 1949, a period of 16 years, Charles S. Porter was listed as the sole occupant. His occupation is shown as a section hand. The house then stood vacant until 1951 when it was used for a year by J. Ross Turner, a machine operator. Consequently, Structure 3 had relatively few occupants in the second quarter of the twentieth century and all were in the same general pay scale. No information is available on the earlier occupants of the house.

This house was that identified during the reconnaissance survey as Structure 7, although its location was consistently misplaced to the west of the actual field location. This error was the result of the Church and Bluff intersection being obscured by erosional deposits and the measurements incorrectly projecting the structure into the yard area between two houses.

The site grid at Structure 1 was oriented N14°E and is tied into the centerline of Church Street and the north side of Morris Street. The site grid at Structure 3 was oriented N19°E and is tied into the southeast intersection of Buff and Church Streets. At both structures the grids were oriented with the front streets for ease in recording architectural details. Vertical control was maintained through the use of two nearby temporary mean sea level (MSL) benchmarks. At Structure 3 the benchmark is a spray painted point on Buff Street with an elevation of 975 feet MSL. The same type of bench mark was used at Structure 1 which was located in a paved parking area at the corner of Church and Morris Streets with an elevation of 970 feet MSL.

Excavations throughout the site used natural stratigraphic zones. Typically Zone 1 consisted of dark brown clay loam varying in depth from about 0.3 to 0.6 feet. This zone reflects both recent deposition, as well as deposits dating from the occupation of the various structures. Zone 2 (where it existed) consisted of reddish brown loamy clay with quantities of coal, varying in depth from 0.1 to 0.5 feet. It represents mixture of yard deposits with coal and is found exclusively in the rear lot areas, where oral histories report coal being dumped at the beginning of each winter. Excavations were terminated at firm red clay, representing subsoil throughout the site area.

Both Zone 1 and 2 soils were dry screened through 1/4-inch mesh using mechanical sifters. Units were usually trowelled at the base of Zone 2 (or Zone 1, if no Zone 2 was present), photographed in b/w and color slides, and plotted.

As previously discussed, a total of 12 5-foot units were excavated at the site. Three of these were placed at Structure 1, while the remaining nine were placed at Structure 3 (Figures 10 and 11). Those at Structure 1 were placed to explore the rear yard areas exclusively. No effort was made to examine the southern area of the yard because of the disturbance from an adjacent parking lot. At Structure 3 an effort was made to explore a wider range of yard and structural areas. Units 1 and 2 were placed in the rear yard, essentially in positions comparable to Units 1 and 2 at Structure 1. Units 3, 4, 6, and 9 were all placed within or immediately adjacent to the structure and were anticipated to be dominated by architectural materials. Unit 5 was situated in the front, public yard. Units 8 and 7 were situated in the west and east side yards respectively.

Archaeological Remains

Structure 1

This lot consists of a grassy area (see Figure 9) evidencing no obvious disturbances, although to the south, on the adjacent lot, there was considerable disturbance from the grading and construction of an asphalt parking lot. The topography is generally level, although there is a gentle slope to the north and west. In addition, a very shallow topographic trough could just barely be discerned running from the north-northwest to the southeast. As previously discussed, this area had been identified as Structure 8 during the reconnaissance survey (Adams and Trinkley 1992a) and at that time 10 shovel tests were placed on the lot at 25 foot intervals. Five of these were positive, although no subsurface features were encountered. To the north of the lot was a large oval depression about 20 by 30 feet in size and about 1 foot in depth.

Unit 1 was placed in the far rear yard, just within the 90 by 110 foot (0.22 acre) lot boundaries as estimated from the 1920 Sanborn Insurance Map. Excavation revealed a very thin lens of recently deposited light brown sandy clay with few artifacts. Underlying this was dense red clay, originally thought to represent the subsoil. Further investigation, however, revealed this clay to be a recent cap, representing a clay tennis court apparently built for the mill workers in the 1940s. Below the clay was a zone of brown sandy clay dating from the early occupation of the village and representing yard deposits. These overlie firm red clay subsoil. Along the west edge of the unit a dark stain was found penetrating the subsoil. Upon excavation it was revealed to be a ditch, about 1.1 foot in depth and over 2.5 feet in width. It probably drained the alley which ran between the houses fronting on Church Street to the east and Wright Street to the west (Figure 12). If this interpretation is correct then the unit was actually placed in the alleyway, rather than in the structure's yard. Regardless, artifact density was relatively low in the zone overlying the subsoil, although the ditch itself produced a large quantity of debris, including several intact bottles. It seems that the alley, or at least the ditch area, was a convenient location to dispose of household trash.

Unit 2 was placed to the east, toward the posited structural area and is best described as representing a "near rear yard" area. Zone 1, consisting of a tan sandy clay about 0.5 foot in depth was found overlying a 0.1 foot lens of light brown sandy clay with large quantities of coal, designated as Zone 2. It seems likely that Zone 2 represents a sheet midden which formed on the original yard surface, while Zone 1 represent deposition, most of which occurred later in the history of the village.

Unit 3 was placed to the north of Unit 2 in an area best described as the rear side yard. Zone 1 was again found to consist of tan sandy clay about 0.5 foot in depth, overlying a tan sandy clay with abundant coal fragments, designated Zone 2. Below this is an irregular red clay cap only 0.1 foot in depth sealing below a brown sandy clay with dense coal fragments but relatively few artifacts. This lowest level, about 0.5 foot in depth, appears to be fill placed in a gully cutting northwest-southeast across the house lot. Likely placed to make building and landscaping easier, this material represents debris collected from some other part of the recently occupied village (based on the low density of artifacts). The clay cap may have been added to seal the material, or may represent continued erosion from up hill, after the fill was in place. A $\frac{1}{2}$-inch iron pipe, possibly representing the water supply for the structure, was found in the southwest corner of the unit.

Structure 3

Identified during the reconnaissance survey as Structure 7, this lot is heavily grassed and situated on a relatively steep slope (see Figure 3). There was no evidence of disturbances or significant

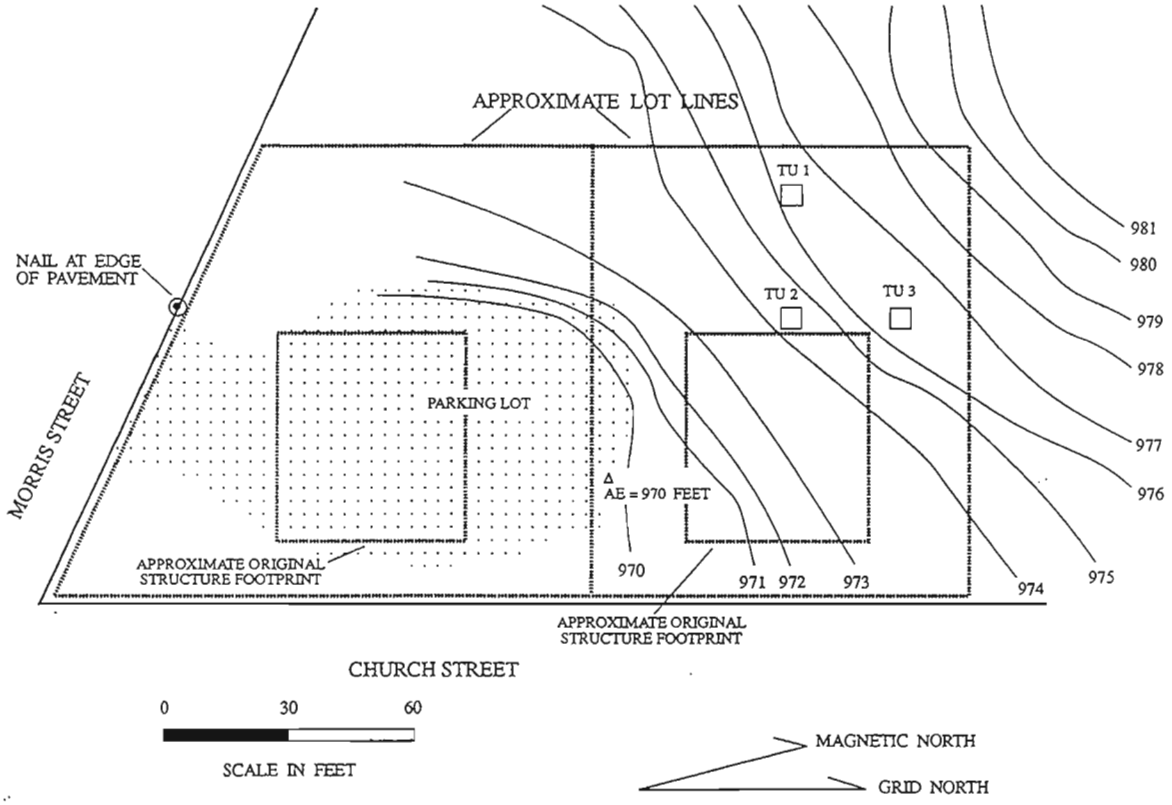

Figure 10. Excavations at Structure 1.

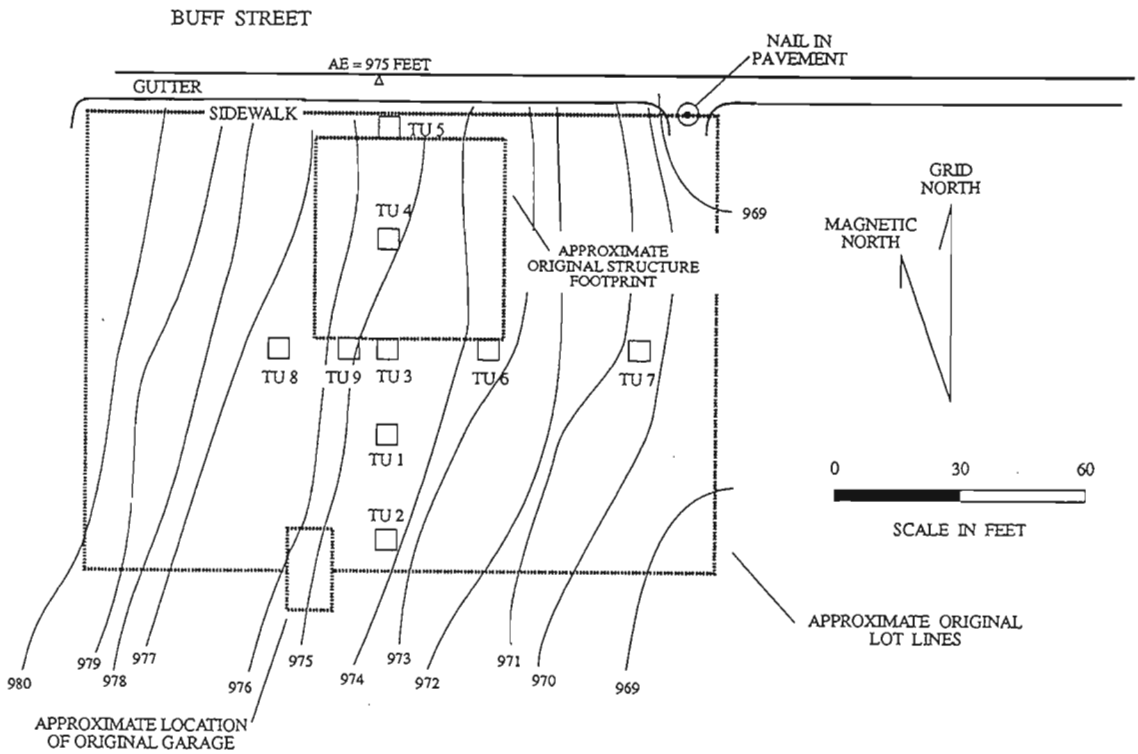

Figure 11. Excavations at Structure 3.

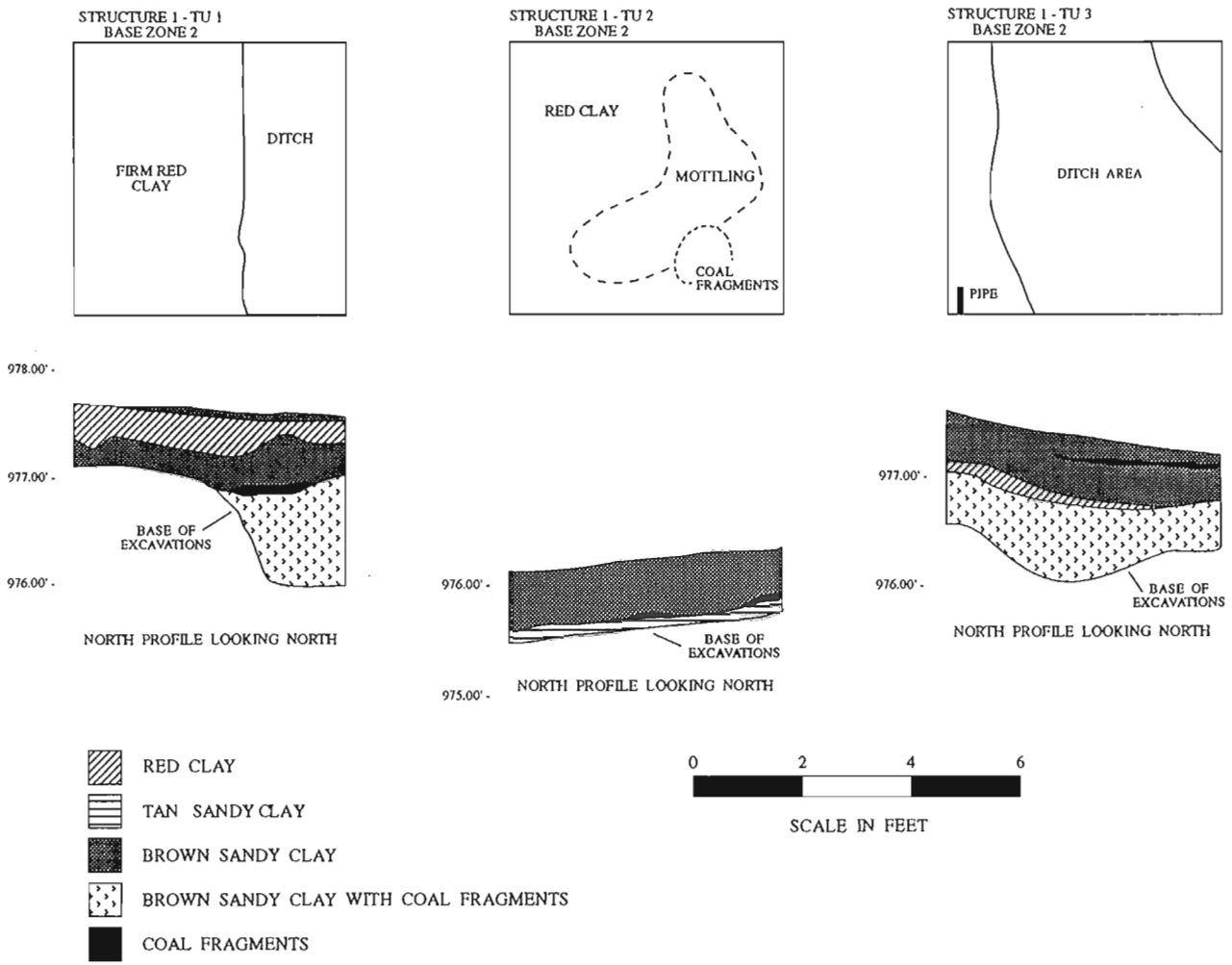

Figure 12. Structure 1 excavation units.

erosion, although the survey did identify a series of four foundation piers (discussed in greater detail below). A series of 12 shovel tests were excavated, with six being positive. Recovered materials included a white porcelain furniture knob, two whiteware ceramics, two wire nail fragments, and one fragment of clear glass.

Units 1 and 2 were situated in the rear yard of the structure. Both were found to have a brown sandy clay Zone 1 about 0.3 foot in depth overlying firm red clay subsoil. Both units contained a very low density of artifacts -- much lower than the rear yard densities found at Structure 1. In addition, virtually no coal fragments were encountered in Unit 2, although Unit 1 (based on the abundance of coal fragments recovered from the southeast quadrant of the excavations) was placed on the northwest edge of a coal pile area.

Unit 3 was originally thought to be placed under the structure, but during excavation was found to be just to the south of the dwelling, in what is best called the "near rear yard". A portion of a brick pier was found along the north profile, while a dark black stain was found in the middle of the unit. Upon excavation this was found to be a shallow erosional area running east-west through the unit. About 0.2 foot in depth with gradually sloping sides, this feature appears to represent a drip line associated with the rear of the structure. The fill consisted of a wide range of primarily architectural items. The bricks to the west are likely parts of a path, or at least "stepping stones" through what must have been a constantly muddy area (Figure 13).

Unit 4 was located under the central portion of the structure. Zone 1 consists of a 0.1 foot thick lens of recent soil overlying red clay subsoil, indicating virtually no soil build-up under the structure.

Unit 5 was located in the front yard of the structure, immediately south of the concrete sidewalk. Soil deposition in this area, while limited (averaging about 0.2 foot), is greater than found under the house. Artifacts were almost entirely recent, suggesting that there was little trash disposal in the front yard. At the base of Zone 1 a dark stain was found paralleling the sidewalk and representing its builder's trench.

Unit 6 was laid at what was anticipated to the southeast corner of the structure, situated down slope from the central yard area. A structural pier was recovered in the north profile, indicating that the unit was just outside the structure in a "near yard" area very similar to Unit 3 (Figure 14). A ½-inch iron pipe running southeast-northwest through the unit is thought to represent the water line for the house. In the central portion of the unit, running east-west, was a debris filled shallow gully, also very similar to that found in Unit 3. Although filled with considerably more, and larger, debris than that seen in Unit 3, it seems likely that this feature also represents the structure's rear drip line. Apparently the salt-box roof form, coupled with the easily eroded soils and steep slope on the lot (which drops 11 feet over 150 feet) resulted in serious gullying. The various occupants apparently tried to reduce the erosion by using bricks and other large debris to catch soil and stabilize the drainage.

Unit 7 is situated at the eastern edge of the yard. Zone 1, a brown sandy clay about 0.5 foot in depth overlies Zone 2, a dark tan sandy clay with abundant coal fragments and artifacts. About 0.25 foot in depth, Zone 2 appears to represent fill used to terrace the yard. It also contains a high density of artifacts.

Unit 8 is situated in the side yard area upslope or west of the structure. Artifact density was found to be very low, although the unit exhibited Zone 1 soils about 0.4 foot in depth.

Unit 9, situated midway between Units 8 and 3, is located in the near side yard area of the

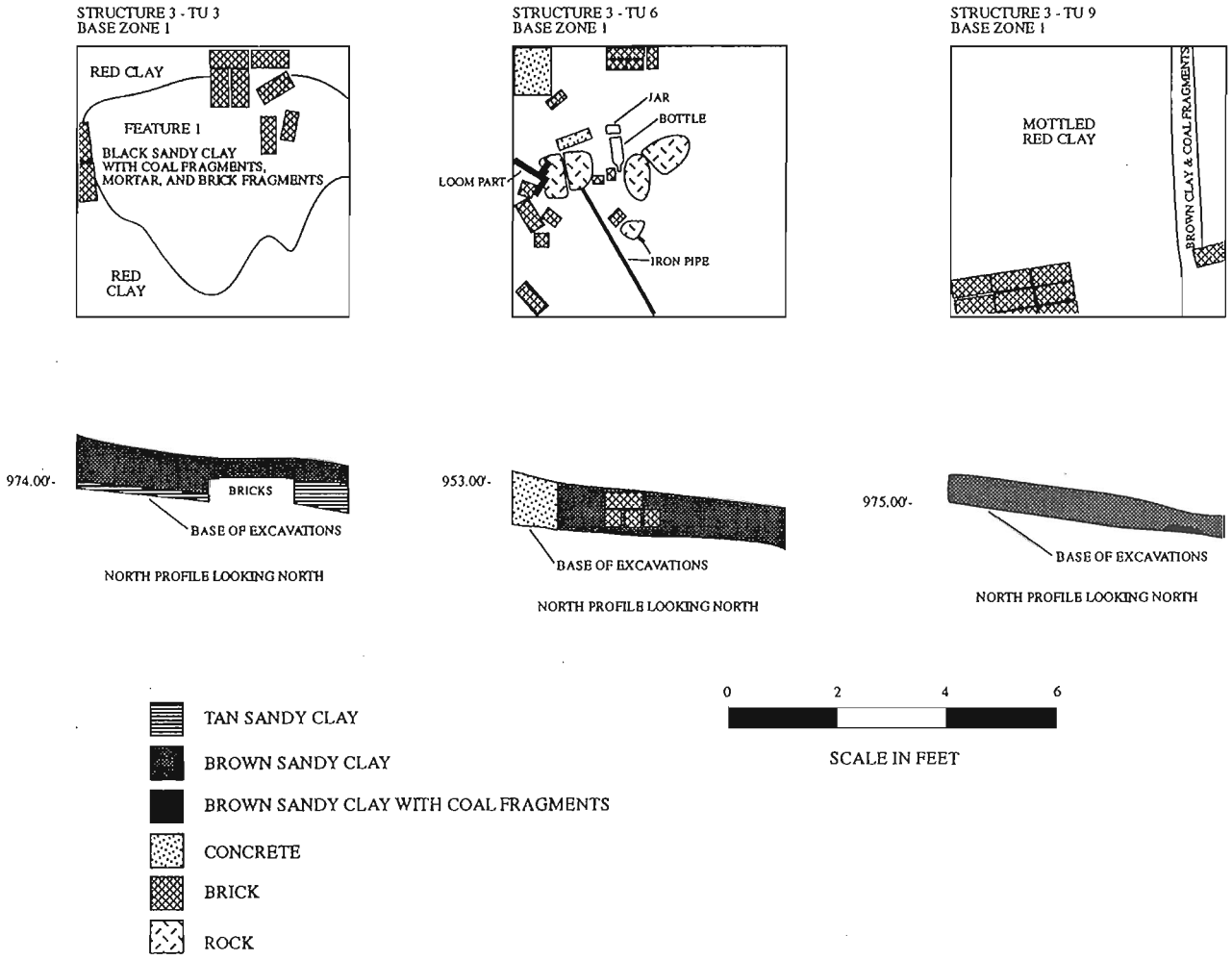

Figure 13. Structure 3 excavation units.

structure. Zone 1 consists of 0.2 foot of dark brown sandy clay overlying a firm red clay subsoil. Portions of a brick walkway at least 1.3 foot in width were found in the southwest corner of the unit, suggesting a walkway from the rear of the house to the southwest yard area. Running north-south along the eastern edge of the unit was a narrow trench feature. Subsequent excavation revealed the trench to be shallow (about 0.1 foot in depth).

Figure 14. Structure 3, Unit 6, view to the west.

In addition to the piers found in Units 3 and 6, a careful examination of the surface revealed evidence of four additional piers in the lot (Figure 14), including three measuring about 2 by 1 foot and a "T" shaped pier measuring 4.5 feet east-west by 4.9 feet north-south. The recovered piers almost certainly represent only a small minority of those associated with the single story duplex. The "T" shaped pier may be associated with a chimney, while the others may simply have supported load bearing walls. Unfortunately, without more intensive investigations the pier arrangement and function is not only incomplete, but also speculative.

Synthesis

Certainly any synthesis based on this very limited sample must be regarded with some skepticism. Regardless, the excavations reveal that few artifacts were deposited under the structure and that soil build-up in this area was very slight. Informants from the village mention both sweeping of yards and use of under-house areas by children. No evidence of either was found by this work. Front yard excavation suggests slightly more soil deposition and more common artifacts, although the area was not extensively used for trash disposal. This is supported by informants who remarked on the front yards being "show areas" and often grassed -- both of which would reduce or discourage trash disposal in these areas.

Near rear yard excavations at Structures 1 and 3 both revealed moderate to heavy trash

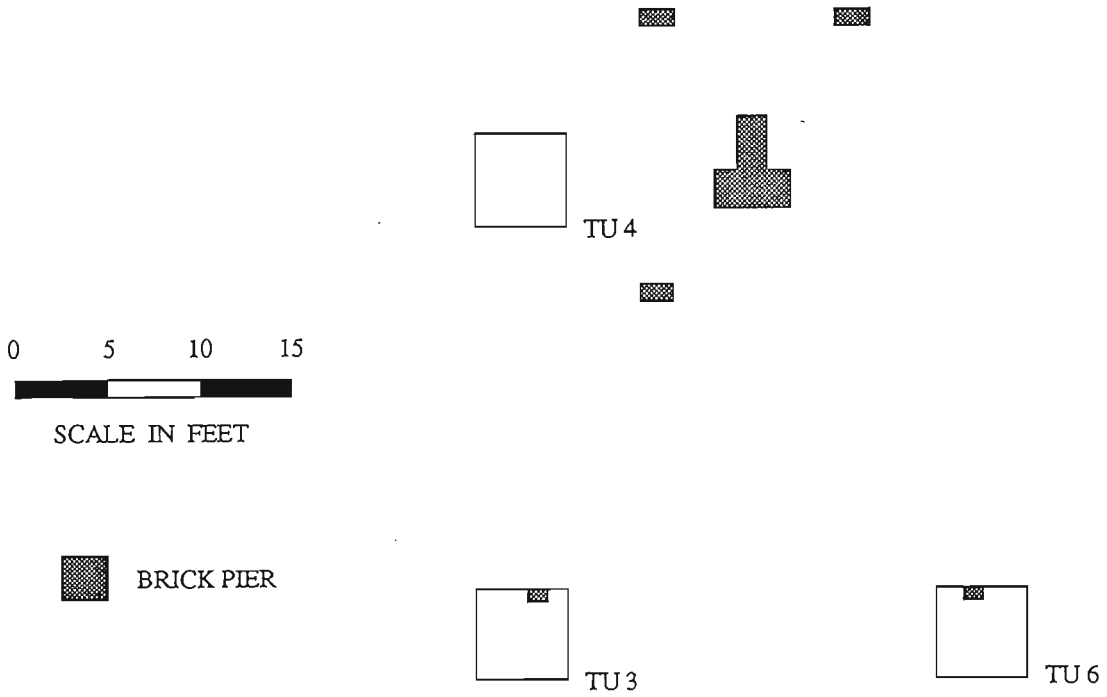

Figure 15. Location of above ground piers identified at Structure 3.

disposal. Artifact density increased toward the rear lot line at Structure 1, but dramatically decreased at Structure 3, suggesting either an inadequate sample size or idiosyncratic behavior. Photographs from the late 1930s produced by an oral informant showed a grassed front yard and swept rear yard, although it is not known how consistent this pattern was, either spatially or temporally.

The excavations also revealed that both houses used large quantities of coal, apparently stockpiled in the rear yards, close to the lot lines. This supports the informants' accounts of coal being dumped just off to the side of alleys which ran behind the houses.

Feature preservation throughout the site is excellent, as examples of trenches, gullies, and ditches were commonly found intact. The research also revealed clear evidence of land modification undertaken during the building process, such as the filling of a gully at Structure 1 and the use of fill to terrace the lot at Structure 3.

ARTIFACT ANALYSIS

Natalie Adams and Debi Hacker

Introduction

The excavations at the American Spinning Company Mill Village (38GR190) have produced 4,359 historic period artifacts. All of these remains are attributable to those living at the mill village between 1895 and the 1960s.

The investigations at 38GR190 focussed on two residences (Structure 1 and Structure 3). We have chosen to discuss the remains in one section because of their similar function. Following the descriptive statements, the topics of dating, patterns, and status are discussed and in each case these observations are offered by structure as appropriate.

The previous excavation section provides a thorough discussion of the various test units and features and should be consulted for detailed information. These data, however, are synthesized here for the convenience of those using this section.

Structure 1 (75 square feet of excavation) - This area revealed a clay cap, probably for a tennis court, a drainage ditch along the back edge of the lot, and a filled gully cutting across the lot.

Structure 3 (225 square feet of excavation) - These units were excavated in various yard areas as well as under the house. A variety of structural piers were encountered, as well as the drip line/erosional gully at the rear of the structure. Also found was evidence of filling or terracing.

Descriptions and Interpretations

The 4,359 historic artifacts from the 38GR190 excavations will be discussed using South's (1977) artifact groups (e.g., kitchen, architecture, etc.) since such an approach allows the quantification and discussion of artifacts in a broad functional framework.

A large quantity of the historic artifacts from the American Spinning Company Mill Village have required some form of conservation by Chicora prior to curation by the South Carolina Institute of Archaeology and Anthropology. Ceramic and glass artifacts did not require stabilization after the initial washing; no reconstruction of artifacts was attempted at this stage.

Brass items, if they exhibited active bronze disease, were subjected to electrolytic reduction in a sodium carbonate solution with up to 4.5 volts for periods of up to 72 hours. Hand cleaning with soft brass brushes or fine-grade bronze wool followed the electrolysis. Afterwards, the surface chlorides were removed with deionized water baths and the items are dried in an acetone bath. The conserved cuprous items were coated with a 20% solution of acryloid B-72 in toluene.

Ferrous objects were treated in one of two ways. After the mechanical removal of gross encrustations, the artifacts were tested for sound metal by the use of a magnet. Items lacking sound metal were subjected to multiple baths of deionized water to remove chlorides. The baths were continued until a conductivity meter yielded a reading of no greater than 18 μmhos/cm (indicating

a level of chlorides no greater than 1.0 ppm). The specimens were dewatered in acetone baths and given an application of 10% acryloid B-72 in toluene, not only to seal out moisture, but also to provide some additional strength. Items which contained sound metal were subjected to electrolytic reduction in a bath of sodium carbonate solution in currents no greater than 5 volts for a period of 5 to 20 days. When all visible corrosion was removed, the artifacts were wire brushed and placed in a series of deionized water baths, identical to those described above for the removal of chlorides. When the artifacts tested free of chlorides (at a reading of less than 2 μmhos/cm, or approximately 0.1 ppm), they were dewatered in acetone baths and a series of phosphoric (10%) and tannic (20%) acid solutions were applied. The artifacts were air dried for 24 hours and coated with a 10% solution of acryloid B-72 in toluene.

As previously discussed, the materials have been accepted for curation by the South Carolina Institute of Archaeology and Anthropology and have been cataloged using that institution's accessioning practices. Specimens were packed in plastic bags and boxed. All material will be delivered to the curatorial facility at the completion of the conservation treatments.

Kitchen Artifact Group

Excavations produced 2,603 Kitchen Group artifacts. These include 512 Euro-American ceramics (19.7% of the group total); 1,970 glass container fragments (75.7% of the group total); 75 specimens of tableware (2.9% of the group total); and 46 specimens of kitchenware items (1.8% of the group total).

The ceramics include a variety of both late nineteenth and early twentieth century examples. It should be noted that ending dates for ceramics such as late porcelains and decorated whitewares have been extended to the approximate date of site abandonment (c. 1970) since both wares were still being made at that time. Those with mean ceramic dates (MCD) typical of the nineteenth century include undecorated whitewares (MCD=1895; Bartovics 1981), transfer printed whitewares (MCD=1895, based on South's beginning date), and yellow ware (MCD=1890; Leibowitz 1985).

The twentieth century specimens include undecorated white porcelains (MCD=1910, based on Bartovics' beginning date), gilded white porcelains (MCD=1910, based on Bartovics' beginning date), underglazed white porcelain (MCD=1910, based on Bartovics' beginning date), decalcomania porcelain (MCD=1926; Bartovics 1981), decalcomania whiteware (MCD=1926; Bartovics 1981), tinted glaze whiteware (MCD=1941), and gilded whiteware (MCD=1917; Bartovics 1981). A total of seven burned earthenware ceramics were recovered from the site and are not further classified.

The largest category of ceramics from 38GR190 consists of whitewares (N=425). The difficulty distinguishing between whiteware and ironstone has been discussed by South (1974:247-248), who uses an "ironstone-whiteware" category, and Price (1979:11), who uses a "whiteware" category which includes ironstone. Both researchers point out that differentiating between whiteware and ironstone using vessel hardness (or degree of vitrification) is an uncertain or even invalid approach (cf. Worthy 1982). For the purposes of this study, whiteware will encompass both categories of ceramics. There are, however, a number of ceramics which might be classified by other researchers as "ironstone" at 38GR190.

Undecorated whiteware includes 370 specimens. Price notes that while undecorated whitewares "were probably introduced somewhat earlier [than decorated varieties], undecorated whiteware vessels were most common in the period following the Civil War" (Price 1979:22). Given the late date of the site, a large number of undecorated vessels should not be considered unusual, but of course many sherds may represent undecorated portions of decorated vessels.

Rather than using the broad category of "whiteware" for dating all specimens, regardless of decoration, we have chosen to use the dates offered by Bartovics (1981) and Orser et al. (1982) as previously discussed. Plain whiteware has a Mean Ceramic Date of 1895 (Bartovics 1981). Other specimens include flow blue (N=1), blue transfer print (N=7), non-blue transfer print (N=6), decalcomania (N=19), molded (N=6), tinted glaze (N=10), and gilded (N=6). Several maker's marks or other temporally sensitive marks were found on sherds. These marks include W.S. GEORGE which was manufactured by the W.S. George Company between 1930 and 1959 (Kovel and Kovel 1986:224), IMPERIAL/CHINA which was manufactured by the Pioneer Pottery company between 1884 and 1900 (Kovel and Kovel 1986:60), Homer Laughlin/Made in USA/F6N_ which was manufactured by the Homer Laughlin Company in June of 1916 (Kovel and Kovel 1986:240-241), MADE IN JAPAN which is found on pieces dating after 1921 (Kovel and Kovel 1986:229), J & E MAYER (with urn and banner) which is found on pieces dating between 1881 and 1964 (Kovel and Kovel 1986:28), and "underglazed" on a banner which is found on pieces dating between 1903 and 1945.

Yellow ware, distinct from the yellow-glazed earthenwares of the eighteenth century, is a simple kitchen and table ware with a buff or yellow paste and a clear glaze (Ramsay 1947:7). Two sherds were recovered, one undecorated and one with a mocha design. The mean ceramic date for both is 1890 (Leibowitz 1985).

Three major categories of nineteenth century stonewares are present at 38GR190: alkaline glazed (N=7), Albany slip (N=1), and salt-glazed (N=2). One additional specimen was burned. The alkaline glazed stonewares are discussed by Burrison (1975) and Greer (1977, 1981). This glaze, distinctively Southern, was developed about 1810 in Edgefield District, South Carolina and spread into North Carolina, Georgia, Florida, Alabama, and Texas. The glaze consists of an alkaline flux (such as wood ashes or slaked lime) combined with silica (such as clay, sand, or glass) and water. The colors range from cream to browns on oxidized vessels and from a pale yellow-green to deep olive on the vessels fired in a reducing atmosphere. The glaze, which is hard and durable, exhibits a variety of textures depending on firing conditions, temperatures, and preparation techniques.

Albany slip is a clay glaze which produces a light to dark smooth brown finish having a slight metallic sheen. It became popular in the South after the Civil War. Salt-glazing was introduced in England during the late 1600s. These examples, however, are typically industrial, wheel-thrown pottery of the nineteenth century. The process and types of salt-glazed pottery are described by Greer (1981:180-192). The texture of salt-glazing may vary from a very fine salt texture with a thin glaze to a well-developed "orange-peel" texture to an extremely heavy salt texture with runs and agglutinations. Colors, reflecting impurities in the clay, include gray, beige, and brown.

The major types of pottery from the American Spinning Company Mill Village are summarized in Table 3. Earthenwares are the most common, accounting for over 84% of the total collection. Stonewares and porcelains represent lesser quantities of the recovered assemblage. These percentages of pottery types are somewhat similar to those found on rural tenant sites, except that porcelains are more common at the mill village than at tenant sites. For instance, at 38SP101D, earthenwares represented 87.7%, stonewares 10.4%, and porcelains 1.9% of the collection (see Trinkley and Caballero 1983a); at 38FL269 earthenwares represented 82.7%, stonewares 10.6%, and porcelains 6.7% of the collection (see Trinkley and Adams 1992); and at Structure 4b 38CH127 earthenwares represented 80.9%, stonewares 16.7%, and porcelains 2.4% of the collection (see Trinkley 1993). While earthenwares are just as common, rural tenant sites tend to have more stonewares than porcelains. The higher use of crockery at tenant sites may be due to a greater need for longer term storage than at urban sites where stores were easily accessible.

Each area examined has sufficient quantities of ceramics to warrant application of South's Mean Ceramic Date Formula (South 1977:217-218). The dates range from 1899 to 1913 (Table 4).

Table 3.
Major Types of Pottery at 38GR190.

Whitewares	425	
Yellow wares	2	
Redware	1	
Total Earthenwares	428	
		84.0%
Alkaline glazed	7	
Slip glazed	1	
Salt glazed	2	
Burned	1	
Total Stonewares	11	
		2.1%
Porcelains	71	
Total Porcelains	71	
		13.9%

The results of the mean ceramic dating and other dating techniques will be discussed in a later section since other artifacts, particularly glass wares, are more temporally sensitive than ceramics in the twentieth century.

The next collection to be considered in the Kitchen Artifact Group is the container glass. A total of 1970 fragments were recovered, 1561 (79.2%) of which are clear, 87 (4.4%) are brown, 71 (3.6%) are aqua, 64 (3.2%) are amethyst (glass containing manganese), with the remaining 187 (9.5%) consisting of bright green, black, cobalt blue, light blue, and milk glass.

Cylindrical aqua and clear bottles are represented by 29 examples. Most are probably crown cap soda bottles. Two are Coca-Cola, two are Orange Crush, one is Big Frosty, and five are Pepsi. Two brown and one black cylindrical bottles probably contained beer or wine.

Cylindrical pharmaceutical bottles are represented by three aqua and three brown bottles. These examples have much smaller circumferences than soda bottles. They often also had corked tops although one brown bottle in the collection had a screw-on cap.

Screw top jars for either canning or condiments are represented by 33 clear, one amethyst, and two light blue specimens. One of the condiment jars is a JUMBO brand peanut butter jar with an elephant logo.

Panel bottles are represented by nine clear and two amethyst specimens. These bottles probably contained proprietary or "patent" medicines. While these concoctions frequently contained a high percentage of alcohol, Wilson notes that it would be a mistake to assume these preparations were primarily consumed for their alcohol content. He notes that nineteenth century living conditions were such that there were a "plethora of fevers and aches" to which proprietary medicines were routinely applied (Wilson 1981:39). That these "medicines" were frequently used as intended is evidenced by Cramp (1911, 1921, 1936). Several examples contained portions of embossed lettering, suggesting that they post-date 1867 (Lorrain 1968:40).

Flask shaped containers found at 38GR190 most likely represent South Carolina Dispensary

Table 4.
Mean Ceramic Dates from Structures 1 and 3, 38GR190

Ceramic	Mean Date (xi)	Structure 1 fi	Structure 1 fi x xi	Structure 3 fi	Structure 3 xi x xi
White porcelain, gilded	1910	2	3820		
willow	1910	2	3820		
decal/gilded	1926			5	9630
undecorated	1910	30	57300	31	59210
Made in Japan	1945			1	1945
Stoneware, N.A. salt glazed	1866			2	3732
Whiteware, flow blue	1895	1	1895		
blue trans print	1895	5	9475	2	3790
non-blue trans print	1895	5	9475	1	1895
decalcomania	1926	14	26954	5	9630
tinted glaze	1941	5	9705	5	9705
gilded	1917	6	11502		
undecorated	1895	260	492700	114	216030
J&E Mayer	1922	1	1922		
"Underglazed"	1924	1	1924		
Homer Laughlin	1916	1	1916		
W.S. George	1944			1	1944
Imperial	1892			1	1892
Yellow ware	1890	2	3780		
Total		335	636188	168	319403

MCD Structure 1 636196 ÷ 335 = 1899.1
MCD Structure 3 319403 ÷ 168 = 1912.6

Table 5.
Glass Containers Recovered from 38GR190.

Vessels	Structure 1	Structure 3
Clear, Bayer asprin	2	
canning jar	26	3
condiment jar	4	
cylindrical	16	5
panel	7	2
six sided		1
S.C. Dispensary	1	
Aqua, corked jar	3	
cylindrical	2	2
flask, screw top	1	
S.C. Dispensary		2
Amethyst, canning jar	1	
corked jar	1	
panel	2	
Brown, corked jar	1	
cylindrical	2	
pharmaceutical		1
screw top bottle	1	1
Light blue, canning jar	2	
cylindrical	1	1
screw top bottle	1	
Black, cylindrical	1	
Milk glass, cosmetic jar	2	1
Total	77	20

Table 6.
Datable glassware from Structure 1, 38GR190

Glass Vessel Information and Mean date (fi)	xi	fi x xi
BALL PERFECT MASON circa 1915 (Toulouse 1977:7). Canning jar	1	1915
BAUER'S/COUGH CURE advertised 1910 (Fike 1987:94). Panel bottle	1	1910
BIG FROSTY (embossed) c. 1950 (Jeter 1987:35)	1	1950
COCA-COLA (patented date Nov. 16, 1915, Mae West type) - 1915-1923. Mean date: 1919 (Jeter 1987:94). Soda bottle	1	1919
FOLEY & CO.//CHICAGO, U.S.A.//FOLEY'S/HONEY AND TAR advertised 1899 through 1942. Mean date: 1920 (Fike 1987:59). Panel bottle	1	1920
FAIRMOUNT GLASS COMPANY (F inside pentagon) - 1945-1960. Mean date: 1952 (Toulouse 1971: 201). Cylindrical bottle	1	1952
HAZEL-ATLAS GLASS COMPANY (A under an H) - 1920-1964. Mean date: 1942 (Toulouse 1971: 239). Canning jars	2	3884
ORANGE CRUSH (clear, no silk screening) 1920-1940. Mean date: 1930 (Jeter 1987:60). Soda bottles	2	3860
OWENS-ILLINOIS INC. (circle and diamond with three numbers around edge) - 1929-1954. Mean date: 1941 (Toulouse 1971:403). Cylindrical bottle	1	1941
PEPSI-COLA (block letters, no silk screening) - 1920-1940. Mean date: 1930 (Jeter 1987:61). Soda bottles	4	7720
PEPSI-COLA (red and white silk screening) - 1950-1960. Mean date: 1955 (Jeter 1987:62). Soda bottle	1	1955
PIERCE GLASS CO. (P inside circle) 1905-1917. Mean date: 1911 (Toulouse 1971:412). Cylindrical bottle	1	1911
SOUTH CAROLINA DISPENSARY (monogram) - 1893-1907. Mean date: 1900 (Huggins 1971). Flask	1	1900
Total	18	34737

Mean date = 34737 ÷ 18 = 1929.8

Table 7.
Datable Glassware from Structure 3, 38GR190

Glass Vessel Information and Mean date (fi)	xi	fi x xi
COCA-COLA (straight sided Vernor Springs Water Co., Greenville, circa 1910 (Jeter 1987:42). Soda bottle	1	1910
COCA-COLA (patented date Nov. 16, 1915, Mae West type, Greenville) - 1915-1923. Mean date: 1919 (Jeter 1987:94). Soda bottle	1	1919
OWENS BOTTLE CO. (O inside a square) - 1911-1929. Mean date: 1920 (Toulouse 1971:393). Cylindrical bottle	1	1920
OWENS-ILLINOIS PACIFIC COAST CO. (I in an O in a diamond with numbers on the left and right) - 1932-1943. Mean date: 1937 (Toulouse 1971:406). Cylindrical bottle	1	1937
SOUTH CAROLINA DISPENSARY (monogram) - 1893-1907. Mean date: 1900 (Huggins 1977). Flasks	2	3800
Total	6	11486

Mean date = 11486 ÷ 6 = 1914.3

bottles. Two specimens contained stylized monograms.

Other containers consist of two clear Bayer aspirin bottles, one corked-lid brown jar, one aqua flask with screw top, one light blue twist off cap bottle, one clear six sided vessel, and three milk glass cosmetic jars. Table 5 shows glass containers by provenience and Tables 6 and 7 provide temporal information on datable glass vessels including mean dates.

Tableware items include 75 specimens. These consist of 44 clear tumbler fragments (including 19 ribbed, 13 plain, seven banded, three panel, one fluted, and one screen printed), one peach colored pressed glass tumbler fragment, one peach colored goblet fragment, one carnival glass punch cup fragment, two clear pressed glass bowl fragments, two clear glass candy dish fragments, 20 clear unidentifiable vessel fragments, two iron spoons, one iron knife, and one iron utensil handle.

Of these tableware specimens one item was clearly datable. The carnival glass punch cup is of the same design being made in Ohio and West Virginia between 1905 and 1920 (Spillman 1982:65). Table 8 lists the tablewares by structure and gives minimum vessel counts.

Kitchenwares include 13 porcelain jar sealer fragments, five can seams, three tin can lid fragments, four kettle fragments, one stove part, 10 crown caps, one foil milk seal, six twist on plastic bottle caps, one metal twist on bottle lid and two zinc canning lids with one jar sealer intact. Portions of the foil milk seal are legible: LEAKE BROS./GREENVILLE, S.C./VITAMIN D/GRADE/A (red letters in a white field), and HOMOGENIZED/PASTEURIZED/ (smaller white letters in a red field). Table 9 lists kitchenwares by structure.

Architectural Artifact Group

Excavations at 38GR190 produced 1433 Architectural Group artifacts. These remains include primarily nails (N=1033 or 71.8% of the group total). Other remains include 385 fragments of window glass, 14 construction hardware items, and one spike fragment. Not included in the totals, but briefly discussed in this section, are examples of fired clay bricks.

Two types of nails have been recovered from 38GR190 -- machine cut (N=62 or 6.0% of

Table 8.
Tablewares at 38GR190

Item	Struct 1	Minimum Vessels	Struct 3	Minimum Vessels
Clear tumblers, ribbed	4	1	15	2
plain	10	4	3	1
banded	7	3		
panel	1	1	2	1
fluted	1	1		
screened	1	1		
Peach tumblers, pressed	1	1		
Peach goblet	1	1		
Carnival glass punch cup			1	1
Pressed glass bowl fragments			2	1
Candy dish fragments	2	1		
Unidentified glass fragments	15	-	5	-
Iron spoons	1	-	1	-
Iron knives			1	-
Iron utensil handles			1	-
Totals	44	14	31	6

Table 9.
Kitchenwares at 38GR190

Item	Structure 1	Structure 3
Porcelain jar sealers	7	6
Can seams	5	
Tin can lid fragments	2	1
Kettle fragments	2	2
Stove parts	1	
Crown caps	7	3
Milk seals	1	
Twist on plastic caps	4	2
Twist on metal caps	1	
Zinc canning lids		2
TOTALS	30	16

recovered nails) and wire nails (N=546 or 52.9% of recovered nails). The remainder are unidentifiable.

"Modern" machine cut nails account for a minority of the identifiable collections, and only 36 are sufficiently intact to allow penny weight measures. These nails were first manufactured in the late 1830s and have uniform heads and shanks with burrs on the edges (Nelson 1968:7; Priess 1971:33-34).

Wire nails consist of 546 specimens and only 254 are sufficiently intact to allow penny weight measures. The earliest wire nails were only available in very small sizes (for picture frames, etc.). Larger sizes were not widely available until the late nineteenth century. By the 1880s they became inexpensive enough to supersede cut nails (Nelson 1968:7).

Because different size nails served different self-limiting functions, it is possible to use the

relative frequencies of nails sizes to indicate building construction details. Nails were early designated by their penny weight, which compared the weight of a nail to that of a silver penny. Gradually the term came to designate length rather than weight, but the equivalence varied over time and it was not until the 1890s that penny weights were thoroughly standardized (Orser et al. 1982:675). To avoid confusion, Table 10 lists both the penny weight size and the Standard Average European (SAE) size for the nails which were sufficiently complete for analysis. Table 11 lists percentages of nails by function.

Table 10.
Intact Nails from 38GR190

		Structure 1		Structure 3	
Penny Weight	SAE	Cut	Wire	Cut	Wire
2d	1"				3
3d	1¼"	4	19		1
4d	1½"		11		39
5d	1¾"		45		5
6d	2"		11	1	13
7d	2¼"		5	1	3
8d	2½"	15	30	8	10
9d	2¾"	1			4
10d	3"	4	18	1	2
12d	3¼"		9		5
16d	3½"		5		5
20d	4"		2		3
30d	4½"	1	2		4
40d	5"				1
Total		25	157	11	97

Table 11.
Nail functions at 38GR190

	Structure 1		Structure 3	
Function	#	%	#	%
small timber, shingles (2d-5d)	79	43.4%	48	44.4%
sheathing, siding (6d-8d)	61	33.5%	35	32.4%
framing (9d-12d)	32	17.6%	12	11.1%
heavy framing (16d-60d)	10	5.5%	13	12.1%

Table 11 shows a very similar profile for both structure areas. There are a large number of nails which would have served roofing and finishing purposes, a number for sheathing associated with frame construction, but relatively few for framing. This is consistent with the fact that most structures in the village were New England Salt Box type houses. They would have required a large proportion of smaller nails since they were weather boarded, floored, and shingled.

Previous work in the region (see, for example, Trinkley and Hacker 1986:241-242 and Michie 1987:120-130) has attempted to use window glass thickness to determine the mean construction dates. The major shortcoming of this technique is that the regression formulae have a number of correction factors (for a detailed discussion see Adams 1980 and Orser et al. 1982). Recent studies by Jones and Sullivan (1985) have cast doubt on the validity of this dating technique. They comment that, "the very nature of window glass suggests that one should take great pains to avoid using it for dating except under special circumstances" (Jones and Sullivan 1985:172). Based on this advice and the generally poor results obtained in previous studies, no effort has been made to date the recovered window glass from 38GR190.

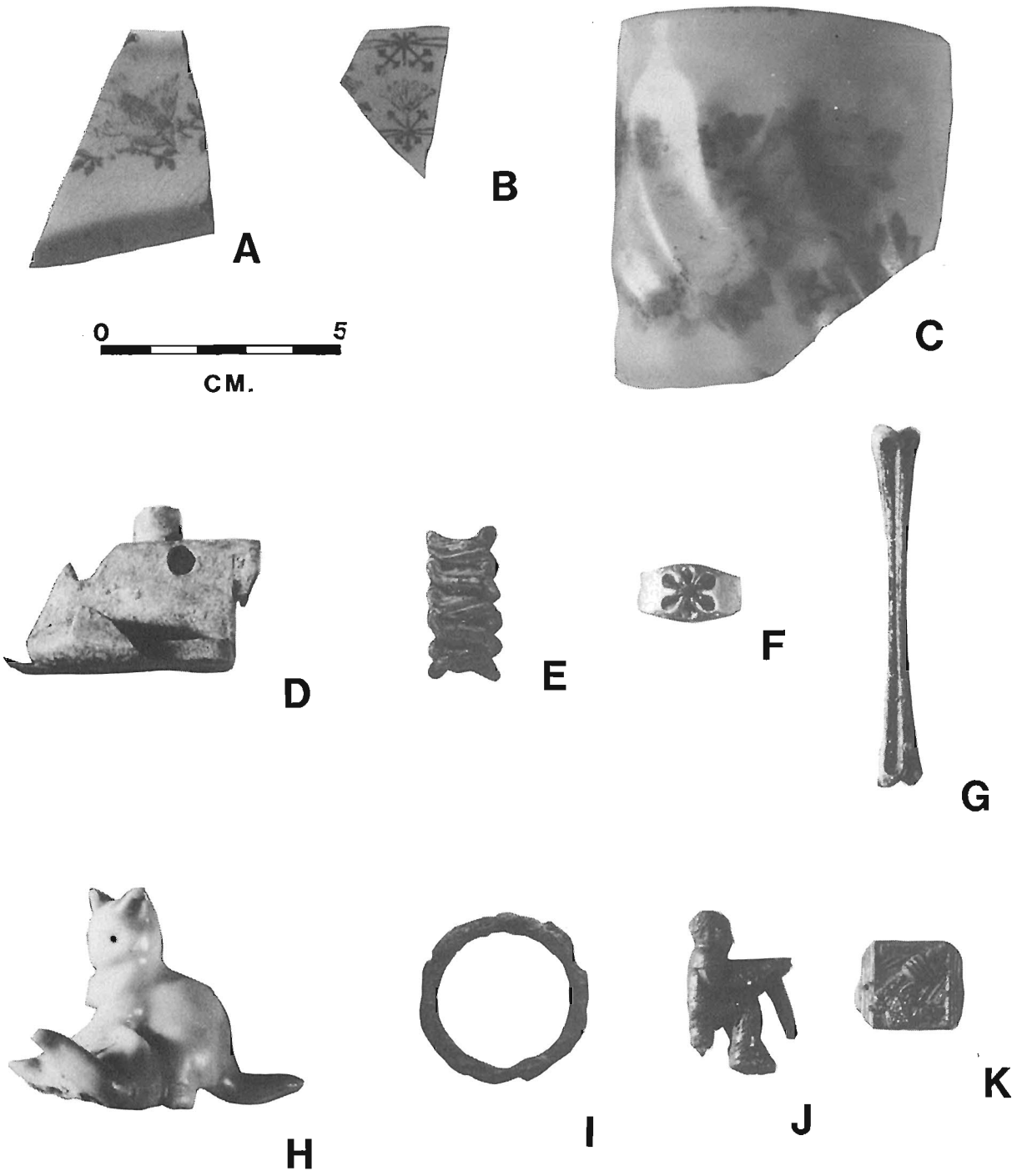

Figure 15. Artifacts recovered at 38GR190. A, Decalcomania decorated whiteware; B, Blue transfer printed whiteware; C, Decalcomania decorated white porcelain; D, industrial sewing machine foot; E-F, jewelry; G, plastic hair curler; H, white porcelain cat figurine; I, spindle ring; J, plastic toy (man driving); K, plastic "Space Gun" ring.

Fourteen construction hardware items were recovered during excavation. These include seven glass tile fragments (six with ribbing), one hook and eye latch (possibly for a screened door), one pintle fragment, one strap hinge, one pivot hinge, and three wide headed roofing nails (1 3/4"). The translucent glass tile fragments are approximately 3/4" thick and may have been used in a bathroom window for privacy. The strap hinge is similar to ones advertised in Montgomery Ward's 1895 catalogue, stock number 41255. The pivot hinge is designed for use on single or pairs of louver or dwarf doors. All but two of the glass tiles and the pintle are from Structure 1. One spike was also found at Structure 1.

Examples of fired brick were also collected. Four different sizes were noted. They measured 3 ¾" x 2 ½" x 8", 4 ¼" x 2 ½" x ? (with wording "_AMBRIA"), 4" x 2 ¼" x ?, and 3 ¼" x ? x ? (with wording ("_ENS_/_OFRAX_").

Furniture Artifact Group

Forty furniture related items were recovered at 38GR190. They include four lamp glass fragments, 15 mirror glass fragments, one picture glass fragment, one milk glass lamp globe fragment, one porcelain cat figurine, one green and orange bisque porcelain statuary fragment, three plain bisque porcelain statuary fragments, one burned decorative tile (wall hanging), three furniture casters, one white rubber furniture bumper, one cabinet hinge, one lead curtain weight, one shower curtain rod mount, one brass electrical lamp fixture, one hard rubber/plastic brown drawer knob, one stamped brass picture liner, and three phonographic record fragments. They are listed by structure in Table 12.

Arms Artifact Group

Six arms related artifacts were recovered at 38GR190, including three .22 caliber, two .32 caliber, and one .38 caliber casings. All but the 38 caliber casing came from Structure 3.

Clothing Artifact Group

Recovered from the excavations at the American Spinning Company Mill Village are 22 clothing items, including seven buttons, nine shoe leather fragments, one rubber shoe sole fragment, one unidentified shoe part, one industrial sewing machine foot, one panty hose fragment, one brass zipper pull, and one plastic collar stay fragment.

The buttons from 38GR190 include six specimens which may be placed in South's button taxonomy (South 1964) and one which cannot be assigned to any of South's classifications. The buttons are detailed in Table 13.

The porcelain buttons tend to be found on shirts and undergarments, while the metal buttons would be found on pants and other clothes. The porcelain style is known as "small chinas" or "Prosser" buttons, after the inventor Richard Prosser (Peacock 1972:98). The style dates from the nineteenth century and Luscomb (1967:183) notes that most were between 3/8 and 3/4 of an inch. All examples from 38GR190 are the common white variety.

Of particular interest is the industrial sewing machine foot found in a domestic context. It may be that the mill was allowing some piece work at home since this foot is uncommonly large for personal home sewing machines.

The Type 11 and one Type 23 buttons, the zipper pull, and the collar stay are from Structure

Table 12.
Furniture Related Items at 38GR190

Item	Structure 1	Structure 3
Lamp glass		4
Mirror glass	1	14
Picture glass	1	
Milk glass lamp globe	1	
Figurine/Statuary fragments	4	1
Decorative tile	1	
Furniture casters	3	
Furniture bumpers		1
Cabinet hinges	1	
Lead curtain weights		1
Shower curtain rod mount	1	
Lamp fixture	1	
Drawer knobs		1
Picture liner		1
Record fragments		3
TOTALS	14	26

Table 13.
Buttons Recovered from 38GR190

Type	Description	#	Other (measurements in cms)
11	lead, one piece	1	1.9
23	4-hole white porcelain	5	1.1, 1.1, 1.3, 1.4, 1.45
--	2-hole white porcelain	1	1.3

3. The remaining clothing items are from Structure 1.

Personal Artifact Group

The personal artifact group contains 23 specimens. They are presented by Structure in Table 14. The dog tag is a flat copper piece measuring 26 mms in diameter. Printed on the tag is: "1952/VACCINATED/AGAINST RABIES/607/BY/DR. N J AYERS/ GREER, S.C.". The plastic child's ring is silver in color with the words "SPACE/GUN" surrounding a futuristic laser-type gun. Another ring was also found. It is a gold ring with a flow petal shaped inlay surround molded into the band.

Tobacco Artifacts Group

No tobacco related artifacts were recovered at 38GR190. This is most likely due to the late date of the site. Cigarettes were probably the most common way in which tobacco was smoked. By the 1880s crude cigarette rolling machines were able to do the work of 50 hand rollers, increasing production substantially by the twentieth century (Encyclopedia Britannica 1966, vol. 5: 768).

Table 14.
Personal Artifacts from 38GR190

Item	Structure 1	Structure 3
Wheat penny (date illegible)	1	
1920 penny		1
1952 nickel	1	
1984 dime	1	
comb, black hard rubber	1	
comb, white plastic		1
hair curler, white plastic	1	1
children's hair bows	2	
watch band, gold coated expandable	1	
bead, round, white plastic, 3-holes	1	
brass bar pin, child's		1
plastic child's ring		1
gold finger ring	1	
nose rest for eye glasses, white plastic	1	
key ring	1	
brass fountain pen top		1
brass eraser holder	1	
ink marker cap	1	
pencil lead	1	
dog tag	1	
ruler fragment, green plastic		1
TOTAL	16	7

Activities Artifact Group

The activities group contains 232 artifacts including 30 (12.9%) toys, one (0.4%) tool, nine (3.9%) storage items, 86 (37.1%) miscellaneous hardware, and 106 (45.7%) other items. These artifacts are summarized in Table 15.

Notable are the large number of toys from both areas representing 10.8% and 15.2% of the Activities category. This is in contrast to rural tenant sites where very few toy items are found (see for example Trinkley and Caballero 1983a; Trinkley and Adams 1992). It does not seem plausible to suggest that children in mill villages had more free time than tenant farming children since they usually worked in the mill at an early age. It is more likely that white mill families were somewhat better off than their black rural counterparts and could more easily afford toys and luxury items.

Of particular interest are the items in the "other" category which were obtained from the mill. These include the spindle rings and the gear or sprocket fragment, probably from a loom. Conversations with former mill workers indicate that they would often take the wooden spindles from the mill to use as firewood. Of course, all that would remain are the spindle rings. These iron rings are 30mm in diameter and 4mm thick. The occurrence of spindle rings is not peculiar to 38GR190. They have also been found at the Granby Mill Village in Columbia, South Carolina. The reason for the gear or sprocket in a domestic context is unknown.

Table 15.
Activities Artifacts from 38GR190

Item		Structure 1	Structure 3
Toys			
	Marbles, glass	7	5
	clay	1	3
	Doll parts, porcelain	2	1
	Doll statuette, porcelain		1
	Toy man on tractor	1	
	Toy car wheel	1	
	Toy car part, blue plastic		1
	Toy plane part, metal		1
	Toy porcelain saucer	1	
	tumbler		1
	pitcher		1
	Toy plate, lead w/ scroll design		1
	Bicycle reflector fragment, red		1
	Checker, white plastic		1
Tools			
	Brass hose nozzle		1
Storage			
	Strap iron	6	3
Miscellaneous Hardware			
	Wire	21	5
	Glass rod	1	
	Washers	6	5
	Square washer	1	
	Belt staples	1	13
	Canvas belt fragment		1
	Chain length		1
	Porcelain insulators		5
	Threaded rod	1	
	Fence staples	3	
	Springs	2	1
	Pipe elbow		1
	Plumbing joint		1
	Nuts and bolts	1	2
	Screws	5	1
	Square head screws		2
	Reinforcement plates		4
	Brass rivet		1
	Threaded nail		1
Other			
	Redware flower pot fragments	4	1
	Spindle rings	29	7
	Flat metal (iron)	6	
	UID iron	7	12
	Tortoise shell plastic fragments	1	
	UID plastic	4	4
	UID brass	5	8
	Brass tube		1
	Quartz fragments		2
	Asphalt fragments		6
	UID rubber		1
	Gear/sprocket (from loom?)	1	
	Melted lead	1	3
	Plastic yellow film (bread wrapper?)		1
	Foil	1	
	Iron Ring		1
Total		120	112

Dating Synthesis

The previous discussions have indicated that a number of artifacts provide temporally sensitive information. While historical information has shown an occupation date range of the late 1890s to the 1970s, these artifacts can indicate any previous or later site occupation. Based on the recovered artifacts, no other historic occupations are present.

Although the village was occupied up through the 1970s, historical documents suggest that the most intensive occupation occurred before 1960. Given a construction date of 1895 and a general ending date of 1960, the mean historic date is 1927.5.

As illustrated by the ceramic analysis, twentieth century wares are not very temporally sensitive. Structure 1 has a mean ceramic date of 1899 and Structure 3 has a mean ceramic date of about 1913 (see Table 4). Ceramics with maker's marks yield a mean date of 1916. Glassware, on the other hand, is much more sensitive since a large number of vessel bases contain marks of the glass company or exhibit temporally sensitive stylistic changes. Tables 6 and 7, which list the datable glassware, give mean dates of 1930 and 1914 for Structures 1 and 3. These are much more realistic given the mean historic date of 1927.5. The 16 year difference between the two areas may be explained by the identification of two substantial drainage features at Structure 1 as opposed to one small gully at Structure 3. It is possible that most of the garbage is found in ditches constructed at a later date at these sites, particularly since twice as many artifacts were recovered at Structure 1 with three units as opposed to nine units at Structure 3.

Other datable items are the 1952 dog tag, the Carnival glass punch cup (1905-1920; mean date 1912.5), the 1920 penny, the 1952 nickel, and the 1984 dime (probably recently dropped).

Pattern Analysis

Up to this point South's artifact groups and classes have been used as simply a convenient and logical means of ordering data, clearly recognizing that other methods are available (e.g., Sprague 1981). In this section these functional categories will be used for an "artifact pattern analysis" developed by South (1977) who believes that the patterns identified in the archaeological record will reflect cultural processes and can assist in delimiting distinct site types. South has succinctly stated that, "we can have no science without pattern recognition, and pattern cannot be refined without quantification" (South 1977:25). The recognition of patterns in historical archaeology is not an end in itself, but rather should be one of series of techniques useful for comparing different sites with the ultimate goal of distinguishing cultural processes at work in the archaeological record (South 1989).

There can be no denying that the technique has problems (see, for example, Joseph 1989), some of which are very serious. Regardless, no more effective technique than South's has been proposed. While a number of factors influence the construction of the pattern, Joseph states:

> [w]hatever its flaws, the value of artifact patterning lies in the fact that it is a universally recognized method for organizing large collections of artifactual data in a manner which can be easily understood and which can be used for comparative purposes (Joseph 1989:65).

Even at this level of a fairly simple heuristic device, pattern analysis has revealed five, and possibly seven, "archaeological signatures" -- the Revised Carolina Artifact Pattern (Garrow 1982b; Jackson 1986:75-76; South 1977), the Revised Frontier Artifact Pattern (Garrow 1982b; South 1977), the Carolina Slave Artifact Pattern (Garrow 1982b; Wheaton et al. 1983), the Georgia Slave Artifact Pattern (Singleton 1980; Zierden and Calhoun 1983), and the Public Interaction Artifact Pattern

(Garrow 1982b), as well as the less developed and tested Tenant/Yeoman Artifact Pattern (Drucker et al. 1984) and the Washington Civic Center Pattern (Garrow 1982b) which Cheek et al. (1983:90) suggest might be better termed a "Nineteenth Century White Urban Pattern." Recent work at the freedmen's village of Mitchelville on Hilton Head Island has revealed a loose clustering of artifact patterns midway between that of the Georgia Slave Artifact Pattern and the Tenant/Yeoman Artifact Pattern (Trinkley and Hacker 1986:264-268). Several of these patterns are summarized in Table 16. A careful inspection of these patterns surprisingly reveals no overlap in the major categories of Kitchen and Architecture, which suggests that these two categories are particularly sensitive indicators of either site function (including intra-site functional differences) or "cultural differences" (see Cheek et al. 1983:90; Garrow 1982a:4; Joseph 1989:60; South 1977:146-154).

Test units placed at Structure 1 were all located in the rear yard, while test units at Structure 3 were placed in several different yard areas. Recognizing that the location of units often affects the artifact pattern, rear yard excavations at Structure 3 were examined separately from the rest of the units. Table 17 shows artifact patterns for Structure 1, Structure 3, and Structure 3 Rear Yard.

As the table shows patterns for Structure 1 and Structure 3 Rear Yard are very similar while the pattern for Structure 3 is distinctly different. This illustrates the importance of testing all yard areas when examining a site. Structure 1 and Structure 3 Rear Yard do not fall into the range of any of the published patterns (Table 16). However, Structure 3 falls within the Piedmont Tenant/Yeoman Artifact Pattern (Drucker et al. 1984:5-47). Others (e.g. Trinkley and Caballero 1983a) have shown that tenant sites exhibit a much higher Kitchen Group range than the Piedmont Tenant/Yeoman Artifact Pattern indicates. Also, the term "yeoman" does not apply at the American Spinning Company Mill Village. Table 18 compares Structure 3 to other sites known to have been occupied by whites in the twentieth century.

As one can see, the Finch and Webb farms (Joseph et al. 1991) are similar to Structure 3 at 38GR190. The Stine Farm (Stine 1989) shows a very different pattern in which the high Kitchen Group percentage is attributed by Joseph et al. (1991:175) to the still standing architecture. Interestingly, the Finch house is also extant, but Joseph et al. (1991:175) suggest that the influence of the standing architecture "appears to have been partially mitigated by the decay and collapse of numerous other structures". The logic of their argument is questionable and it appears that additional research is necessary.

Status Considerations

Miller's (1991) technique for the economic value of a ceramic assemblage is not applicable to the American Spinning Company Mill Village since the latest index value is for 1880. However, the percentages of vessel forms and their surface decorations will be examined to note any general trends. These will be compared to the ceramics found at a tenant site (38SU81) by Trinkley et al. (1985). This site was chosen for comparison since a similar level of field investigation was used and since the data is readily available in the report. This technique for comparing status was formulated by Otto (1984:64-67) who compared the assemblages of slave, overseer, and planter. He found that slaves tended to have more banded, edged, and hand painted wares than the plantation owner who tended to use transfer printed wares.

For the purpose of this study plain wares will be considered the least expensive while tinted wares, gilded wares, and decalcomania will be considered more expensive. Transfer printed wares will be considered the most expensive.

Table 19 compares vessel forms from Structure 1 and Structure 3. The percentages of types are similar with about half of the vessels representing plates or saucers. Other well represented forms

Pattern	Kitchen	Architecture	Furniture	Arms	Clothing	Personal	Tobacco	Activities
Revised Carolina[a]	51.8-65.0	25.2-31.4	0.2-0.6	0.1-0.3	0.6-5.4	0.2-0.5	1.9-13.9	0.9-1.7
Revised Frontier[b]	35.5-43.8	41.6-43.0	0.1-0.3	1.4-8.9	0.3-1.6	0.1	1.3-14.0	0.5-5.4
Carolina Slave[c]	70.9-84.2	11.8-24.8	0.1	0.1-0.3	0.3-0.8	0.1	2.4-5.4	0.2-0.9
Georgia Slave[d]	20.0-25.8	67.9-73.2	0.0-0.1	0.0-0.2	0.3-1.7	0.1-0.2	0.3-9.7	0.2-0.4
Piedmont Tenant/ Yeoman[e]	45.6 40.0-61.2	50.0 35.8-56.3	0.4	---	1.8	0.4	---	1.8
Tenant[f] (mean)	72.3	22.1	0.0	0.0	1.5	0.3	0.0	3.8

Sources:

a Garrow 1982b
b Garrow 1982b
c Wheaton et al. 1983
d Singleton 1980
e Drucker et al. 1984:5-47 (no range provided, but has been partially reconstructed for Kitchen and Architecture Groups)
f Trinkley and Caballero 1983b

Table 16. Published artifact patterns.

Table 17.
Artifact Patterns for Structure 1, Structure 3, and Structure 3 Rear Yard

	Structure 1		Structure 3		Structure 3 Rear Yard	
	#	%	#	%	#	%
Kitchen Group						
Ceramics	343		169		19	
Glass	1373		597		61	
Tableware	44		31		2	
Kitchenware	30		16		2	
Total Kitchen Group	1790	67.93%	813	47.16%	84	67.74%
Architecture Group						
Window glass	168		217		10	
Construction Hardware	11		3		0	
Cut Nails	25		11		0	
Cut Nail fragments	21		5		0	
Wire Nails	157		97		2	
Wire Nail fragments	262		30		12	
UID Nail fragments	31		394		0	
Spikes	1		0		0	
Total Architecture Group	676	25.66%	757	43.91%	24	19.36%
Furniture Group						
Furniture Hardware	14		26		1	
Total Furniture Group	14	0.53%	26	1.51%	1	0.81%
Arms Group						
Shell casings	1		5		2	
Total Arms Group	1	0.04%	5	0.29%	2	1.61%
Clothing Group						
Buttons	5		2		0	
Other clothing	13		2		0	
Total Clothing Group	18	0.68%	4	0.23%	0	0.00%
Personal Group						
Beads	1		0		0	
Personal items	15		7		0	
Total Personal Group	16	0.61%	7	0.41%	0	0.00%
Activities Group						
Toys	13		17		0	
Tools	0		1		0	
Storage	6		3		0	
Misc. Hardware	42		44		7	
Other	59		47		6	
Total Activities Group	120	4.55%	112	6.49%	13	10.48%
TOTALS	2635		1724		124	

Table 18.
Comparison of White Occupied Sites

	Finch Farm	Webb Farm	Stine Farm	38GR190 Structure 3
Kitchen	58.81%	57.04%	80.16%	47.16%
Architecture	33.09%	34.18%	12.30%	43.91%
Furniture	0.23%	0.00%	0.70%	1.51%
Arms	0.40%	1.85%	1.04%	0.29%
Clothing	0.75%	0.46%	0.93%	0.23%
Personal	0.60%	0.92%	0.23%	0.41%
Tobacco	0.00%	0.00%	0.00%	0.00%
Activities	6.12%	5.08%	4.64%	6.49%

Finch and Webb Farms (Joseph et al. 1991)
Stine Farm (Stine 1989)

Table 19.
Shape and Function of Ceramic Vessels from Areas 1 and 3

	Structure 1		Structure 3	
Shapes	#	%	#	%
Tablewares				
Plates/saucers	16	47.1	20	58.8
Bowls	7	20.6	7	20.6
Serving	0	0.0	0	0.0
Tea and Coffeeware	10	29.4	5	14.7
Utilitarian	1	2.9	2	5.9

are bowls and tea/coffee ware. This is in sharp contrast to tenant site 38SU81. Plates and saucers represented 92.3% of the vessels, bowls and cups represented 4.5% of the vessels, and serving vessels consist of 3.1% of the forms. Trinkley et al. (1985) suggest that glasswares largely subsumed the cups category.

Table 20 compares the surface decorations of vessels from Structures 1 and 3. Undecorated wares are represented by approximately 80% of both collections. Other decorations are minor. Although Trinkley et al. did not discuss decoration of vessels at 38SU81, Table 21 compares the decoration of sherds at Structures 1 and 3 from 38GR190 and 38SU81.

Table 20.
Decoration of Ceramic Vessels from Areas 1 and 3

	Area 1		Area 3	
Type	#	%	#	%
Undecorated	26	78.8	27	79.4
Tinted	0	0.0	3	8.8
Gilded	3	9.1	0	0.0
Decalcomania	4	12.1	1	2.9
Transfer Printed	0	0.0	2	5.9

Table 21.
Decoration of Sherds from Area 1, Area 3, and 38SU81

	Area 1		Area 3		38SU81	
Type	#	%	#	%	#	%
Undec/Molded	292	88.7	142	88.2	140	95.2
Tinted	5	1.5	5	3.1	0	0.0
Gilded	8	2.4	0	0.0	0	0.0
Banded	0	0.0	0	0.0	1	0.7
Decalcomania	14	4.2	11	6.8	1	0.7
Transfer Printed	10	3.0	3	1.9	2	1.4

Table 21 shows a strong similarity of decorative types between Structures 1 and 3. 38SU81 is only slightly different with a larger percentage of wares being undecorated. However this minor difference along with a fairly strong difference in vessel forms may indicate that the rural tenant farmer assemblage consists primarily of undecorated plates, while the urban mill worker had a little more variety in form and decoration.

Food Remains

A small quantity faunal specimens were recovered from Structure 1 excavations. Identifiable examples, all well preserved, appear to be exclusively ham bone and pork rib. No faunal remains were recovered from Structure 3. While the sparsity of animal bone might be interpreted as due to poor preservation, the condition of that found at Structure 1 suggests otherwise. It is likely, however, that animal bone was scavenged by commensal species or animals such as opossum, raccoon, and dog, with only bone in feature contexts, such as the trench deposits at Structure 1, available for recovery. The sparsity of faunal material, even in feature contexts, suggests that fresh meat was rarely available in the mill village.

Local informants indicated that families often had vegetable gardens in the rear of their houses. Of the 96 glass vessels recovered at 38GR190, 32 (or 33.3%) are canning related. When compared to a tenant structure on Kiawah Island (38CH127) where of 74 glass vessels 26 (or 36.1%) are canning related, it appears that mill workers were canning just as much as rural tenant farmers. Information specifically related to canning jars at 38SU81 was not available in the report. The associated milk glass/porcelain jar sealers consist of 28.3% of the Kitchenware Class at 38GR190 or 0.5% of the Kitchen Group. At 38SU81 jar sealers consist of 0.9% of the Kitchen Group. No jar sealers were recovered at Structure 4b, 38CH127.

At 38GR190 tin can fragments represent 17.4% (n=8) of the Kitchenware Class or 0.3% of the Kitchen Group total. However, at 38SU81 metal container fragments consist of 12.0% of the Kitchen Group. No tin can fragments were found at 38CH127 (Trinkley 1993).

The availability of food types to urban mill worker and rural tenant farmer appears to be very similar. Canning was equally practiced and the use of canned goods is similar. The sparsity of animal bone at the mill village has also been noted at tenant sites (see Trinkley 1993 and Trinkley and Caballero 1983b).

SUMMARY AND SYNTHESIS

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New Findings and the Comparison to Historical Documentation

The American Spinning Company Mill Village (38GR190) was archaeologically examined with several research questions in mind. These questions included:

- Comparison of the lifestyles of the mill worker and supervisory personnel,
- Examination of the refuse disposal patterns at the mill village,
- Exploration of urban mill village patterns and comparison with other urban and rural patterns,
- Investigation of mill worker diet,
- How did mill life change through time, and
- What types of activities took place in the mill village.

As stated in the introduction, the research questions posed were very ambitious for a project with such limited time and funding. However, the goal was to ask questions which could be archaeologically answered, hoping to encourage a greater attention to this type of site in the future. At 38GR190 these questions were addressed with varying degrees of success.

The first question related to the difference between lifestyles of the mill worker and supervisory personnel. Only one supervisory structure was believed to exist in the 16 acre project area, based on the examination of available insurance and tax maps. Unfortunately, the area containing this structures appeared to be disturbed, having been used extensively by indigents and exhibiting a large quantity of recent debris. Also, the large quantity of rain throughout the project and the fact that the structure was situated in a low area adjacent to a creek caused this area to flood. Due to disturbance and flooding, excavations at this area were abandoned and a second mill worker's house was chosen. As a result, this research question could not be approached.

A few observations were made concerning refuse disposal patterns at the mill village. It was clear that ditches and gullies were the primary receptors of trash. Three test units were excavated at Structure 1 which contained two relatively deep ditches full of refuse. Nine test units excavated at Structure 3 contained only one shallow gully which was related to the dripline of the structure. Although three times as many units were excavated at Structure 3, it contained only half as many artifacts as Structure 1.

Unfortunately, time constraints did not allow the kind of yard coverage needed at both structures to determine a solid pattern for refuse disposal at the American Spinning Company mill village. Residents of the Sampson village remembered that at least from the 1930s on, trash and refuse was carried to one of several mill dumps. Others remembered that trash was often burned behind the houses in barrels. Privies were used until plumbing was installed in the 1930s. While most of the trash

Table 22.
Artifact Counts and Unit Locations at Structure 3

Unit #	Unit Location	Artifact Count
1	Rear Yard	66
2	Rear Yard	56
3	Near Rear Yard	387
4	Under Structure	4
5	Front Yard	39
6	Near Rear Yard	555
7	Lower Side Yard	489
8	Upper Side Yard	59
9	Near Upper Side Yard	129

made its way to local dumps, some of it did not. Table 22 gives artifact counts from test units at Structure 3. Testing at Structure 3 revealed that the front yard was kept relatively clean. This is supported by informants who remarked that the front yards were "show areas" and were often grassed. The one unit located underneath Structure 3 contained very few artifacts. Near rear yard excavations contained large amounts of artifacts, primarily in the dripline next to the house. A 1930s photograph provided by an informant showed a grassed front yard and swept rear yard. It is possible that the yard trash was swept into the driplines. Sweeping rear yard trash into low areas is also supported at Structure 1 where trash was found primarily toward the rear lot line in large ditches. At Structure 3, rear yard and near rear side yard trash was relatively low which further suggests sweeping garbage into low areas. None of these units contained either ditches or gullies. Interestingly, Unit 7 at Structure 3 contained a high density of artifacts. This unit is located in the far side yard at the lower end of the property. The reason for this high density in the lower side of the house is probably not related to erosion since the A horizon in the upper area of the lot is intact. Instead, it may be simply because it, like the drip line, was considered a low spot to sweep the yard into. Large amounts of fuel coal were generally found along the lot lines in the rear yard.

Given these observations on refuse disposal at Structures 1 and 3, the location of yard trash will vary from structure to structure. Trash will be found in ditches, gullies, and driplines. Some occupant living at house lots with few of these features may have also swept garbage under the house although such behavior was not documented by this study.

At Finch farm, Joseph et al. (1991:124-129) found that the far rear yard had a considerable number of artifacts which indicated that some dumping occurred there. A dense trash dump composed mainly of glassware was found in the side yard which is similar to dumps found at rural tenant sites (see, for example, Trinkley 1993). With organized removal of garbage from the mill village, such trash dump would not be found at 38GR190. The west rear side yard of the Finch farm contained a fairly thin sheet midden. Joseph et al. also excavated an area in the immediate rear of the house, in order to investigate the possible continuance of South's (1977) Brunswick Pattern of Refuse Disposal into the nineteenth and twentieth centuries. Here, a very dense area of artifacts were found, which suggested to them "the continuance of South's pattern in certain situations into the late twentieth century". This is a possible contributor to the high density of artifacts near the back of Structure 3, although sweeping trash into low areas probably occurred as well.

Another research question relates to the comparison of urban mill village patterns with other urban and rural patterns. As previously discussed, the site appears to fall within the Piedmont

Tenant/Yeoman Artifact Pattern. Unfortunately, an overall pattern could only be obtained from Structure 3 where a variety of lot areas were examined. Whether this profile is represented at other structures is unknown since time constraints did not allow the examination of various yard areas from Structure 1.

Structure 3 at 38GR190 is similar to rural white occupied sites such as Finch and Webb Farms in nearby Spartanburg County (Joseph et al. 1991). However, there is a 10% difference in both the Kitchen and Architecture Groups (see Table 18). Although small, this difference may be significant. Unfortunately, no early twentieth century urban sites have been examined in the Southeast to compare to 38GR190. As a result, no observations can be made about artifact pattern differences between twentieth century white occupied urban and rural sites or twentieth century black occupied urban sites.

Trinkley and Caballero (1983b) have published a tenant pattern with the mean Kitchen Group percentage at 72.3% and the mean Architecture Group percentage at 22.1%. This pattern is clearly different than that found at 38GR190, probably because mill house architecture was much more substantial than tenant farm architecture.

It was initially hoped that mill worker diet could be compared to the diet of mill supervisors. Unfortunately, due to lack of integrity and the large amount of rain at the supervisor's structure, this research question could not be pursued. However, some statements can be made comparing mill worker and tenant farmer diet. As previously discussed, the availability of food types to urban mill worker and rural tenant farmer appears to be very similar. Canning was equally practiced and the use of canned goods is similar (Trinkley and Caballero 1983b). Many of the informants mentioned that people had gardens in the rear yard. This was a source for spring and summer vegetables. Garden vegetables were also canned for use in the winter months. The sparsity of animal bone at the mill village has also been noted at tenant sites (see Trinkley 1993 and Trinkley and Caballero 1983b). Informants remembered that very few people raised poultry or cows, although a pasture and cow barn was provided by the mill.

Whether mill life slowly changed for the better is unclear, based on the archaeological research at 38GR190. Both Structures 1 and 3 were occupied during the same period. Ideally, the investigation of one of the earliest mill houses should have been coupled with investigation of a house built perhaps about 1930. However, historical research indicates that this portion of the village was built in one phase. Mill life was idealized in the press. The 1907 *Handbook of South Carolina* stated that these workers were recruited out of their "primitive mountain home" to the mill village where more opportunities could be found. The mill village provided many social and economic need such as employment, housing, churches, schools, recreation, stores, health facilities. Although advertised as "humanitarian" and "Christian", it also gave them control over most aspects of the mill workers' lives. According to the handbook, mill workers came with only what they could carry, and left behind little.

The presence of a relatively large amount of toys suggests that leisure items were not entirely frivolous. Rural tenant sites contain few toys (see, for example, Trinkley and Caballero 1983a; Trinkley and Adams 1992) suggesting that white mill families were somewhat better off than their black rural counterparts.

A few statements can be made about the types of activities taking place in the mill village. Gardening was certainly a necessity, since vegetables could be more cheaply grown than bought from local farmers. Based on the size of the lots, these gardens were small and could probably be easily maintained. Money was also being saved through bringing home wooden spindles for burning in the furnace when either coal was low or could not be afforded.

The industrial size sewing machine foot found at one structure indicates that sometimes work invaded the home. Some piece work may have been allowed possibly for mothers of infants and toddlers. Other work related items were a possible loom gear or sprocket and a number of belt staples. The reason for their presence in a domestic context is unknown.

As previously stated, a relatively large amount of toys were found at 38GR190 including marbles; doll parts; toy cars, tractors, and planes; toy porcelain tea sets; a checker; and a reflector from a bicycle. Marbles made up more than half of this category and oral informants indicated that marbles was a very popular game. Phonographic record fragments indicate that some people could afford and enjoy recorded music.

Although the work hours were long and the pay poor, apparently the mill village was not as bleak as some traditional accounts lead us to believe. Nor was it a wonderful place of economic opportunity. Based on the archaeological analysis and conversations with local informant, mill workers had very little. Most outside activities were controlled by the mill, but although the work hours were long leisure was not an unheard of activity.

Most informants remembered that the school was an important part of their lives. They also had generally pleasant memories of growing up there and the good friend they had made. Although most of them had no money, there was a strong sense of community which enriched their lives in ways money could not.

Directions for Future Research and the Significance of Textile Heritage

Several of the research questions initially posed could not be addressed because of a lack of comparative material. However, these questions are important and it is hoped that future early twentieth century archaeology can fill in the information needed to address these questions. The remaining questions could only be touched upon even though the data for a better understanding of mill village life certainly exists at 38GR190. Since only the lot containing Structure 3 was tested in a variety of yard areas, only one house was able to yield any meaningful information relating particularly to artifact patterning and refuse disposal. Due to the lack of time and funds, no other structure could be examined at the same level to know whether all structures in a mill village will exhibit similar patterns.

Future research should continue to explore the research questions posed in this study. Probably the best mill village site in South Carolina because of its accessibility and integrity, additional research at 38GR190 would be of special assistance in reconstructing the lifeways of South Carolina Piedmont mill workers. In particular, it would be useful to

- undertake close interval testing throughout the village in order to obtain collections from a variety of houses and lot locations,

- conduct additional excavations at several additional structures, identified on the basis of the close interval testing,

- undertake additional historical research suggested earlier in this study, and

- develop a formal oral history project suitable for collecting, preserving, and interpreting the vast amount of information the mill workers can contribute about Sampson.

Ideally, this site can provide a baseline for future work at mill villages. A number of structures can

be thoroughly examined to yield a general site profile to be tested at other cotton mill village site. It can then be compared to other industrial villages. As it stands, these preliminary investigations have established broad parameters for future work, illustrating that mill villages are, in fact, a significant part of South Carolina's nineteenth and early twentieth century heritage.

This study also illustrates the exceptional importance of both documentary and oral history research. Taken in combination with archaeological research, it is possible to very accurately reconstruct the lives of mill workers. Archaeologists, as well as historians, must in the words of Bruce Trigger "learn to live with the realization that their desire to study whole cultural systems cannot be realized" (Trigger 1978:151). An interdisciplinary approach, especially on late sites such as 38GR190, is exceptionally useful, allowing the strengths of the various disciplines to be maximized.

In over a decade of heritage preservation few sites such as the Sampson Mill Village have presented themselves. The unique combination of public interest and availability of previous inhabitants make the site especially important to Greenville. The work at the Sampson village also reveals the importance of such sites -- they tie the past with present and allow society to understand its roots. Greenville is a city made by the textile industry. Were it not for that single industry it is possible that the city would not exist today, or at least it would look very different. It is therefore important for that textile heritage to be understood, studied, and preserved.

The Sampson mill village project, funded by the Greenville County Redevelopment Authority, has begun the process. But it must be picked up by others and carried forward. In particular it is important that schools play a more active role in teaching and preserving South Carolina's heritage in their social studies and history curricula. The present generation is already removed from the textile mills of the 1890s and 1920s. School children are even further removed and unable to understand their own past, or the past of their community.

SOURCES CITED

Adams, Natalie and Michael Trinkley

1992a *Archaeological Reconnaissance Survey of the Greenville County Redevelopment Authority Property, City of Greenville, South Carolina*. Research Contribution 90. Chicora Foundation, Inc., Columbia.

1992b *Management Summary of Archaeological Excavations at 38GR190, The American Spinning Company Mill Village, Greenville County, South Carolina*. Research Contribution 98. Chicora Foundation, Inc., Columbia.

Adams, William H. (editor)

1980 *Waverly Plantation: Ethnoarchaeology of a Tenant Farming Community*. Resource Analysts, Inc., Bloomington, Indiana. Submitted to National Park Service, Heritage Conservation and Recreation Service, Atlanta.

Allen, Barbara and Lynwood Montell

1981 *From Memory to History: Using Oral Sources in Local Historical Research*. American Association for State and Local History, Nashville.

Andrews, Mildred G.

1987 *The Men and the Mills: A History of the Southern Textile Industry*. Mercer University Press, Macon.

Anonymous

1884 *South Carolina in 1884*. The News and Courier Book Presses, Charleston, South Carolina.

1907 *Handbook of South Carolina: Resources, Institutions and Industries of The State*. State Company, Columbia.

1911 *The Daily News, Greenville, South Carolina -- Special Souvenir Number*. The Greenville News, Greenville, South Carolina.

Arnold, L.L.

1915 *A Story of Textile Greenville*. W.R.C. Smith Publishing Company, Dalton, Georgia.

Ashmore, Nancy V.

n.d. *Greenville: Woven from the Past*. Windsor Publications, Northridge, California.

Bartis, Peter

1990 *Folklife and Fieldwork: A Layman's Introduction to Field Techniques*. Second Edition. The Library of Congress, Washington, D.C.

Bartovics, Albert
1981 The Archaeology of Daniels Village: An Experiment in Settlement Archaeology. PhD. dissertation, Department of Anthropology, Brown University.

Bass, Turner C. and Irving L. Martin
1940 *Erosion and Related Land Use Conditions on the Spartanburg Municipal Reservoir Watershed, South Carolina.* U.S. Department of Agriculture, Washington, D.C.

Bastian, Beverly E.
1982 *Fort Independence: An Eighteenth Century Frontier Homesite and Militia Post in South Carolina.* National Park Service, Atlanta.

Berry, John M.
1980 *Natural Vegetation of South Carolina.* University of South Carolina Press, Columbia.

Braun, E. Lucy
1950 *Deciduous Forests of Eastern North America.* Blakiston Company, Philadelphia.

Building Conservation Technology, Inc.
1981 *The Historic Resources of Greenville, South Carolina.* Building Conservation Technology, Nashville.

Burrison, John A.
1975 Alkaline-Glazed Stoneware: A Deep-South Pottery Tradition. *Southern Folklore Quarterly* 39:377-403.

Camp, Wallace J.
1975 *Soil Survey of Greenville County, South Carolina.* U.S. Department of Agriculture, Soil Conservation Service, Washington, D.C.

Carlton, David L.
1982 *Mill and Town in South Carolina, 1880-1920.* Louisiana State University Press, Baton Rouge.

Carnes, Linda
1980 *A Glossary of Selected Terms Regarding Historic Ceramics.* Compiled by the author. Manuscript in possession of the author.

Carrillo, Richard F.
1975 *Historical, Architectural, and Archaeological Research at Brattonsville (38YK21), York County, South Carolina.* Research Manuscript Series 76. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

1976 *The Howser House and the Chronicle Grave and Mass Burial, Kings Mountain National Military Park, South Carolina.* Research Manuscript Series 102. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

1979 The Kilgore-Lewis Spring Restoration (38GR87): Archaeological, Architectural, and Historical Phase. Ms. on file, Chicora Foundation, Inc., Columbia.

Cheek, Charles D., Amy Friedlander, Cheryl Holt, Charles M. LeeDecker, and Teresa Ossim
1983 *Archaeological Investigations at the National Photographic Interpretation Center Addition, Washington, D.C. Navy Yard Annex*. Soil Systems, Inc., Alexandria, Virginia.

Cramp, Arthur
1911 *Nostrums and Quackery*, vol. 1. American Medical Association, Chicago.

1921 *Nostrums and Quackery*, vol. 2. American Medical Association, Chicago.

1936 *Nostrums and Quackery and Pseudo-Medicine*, vol. 3. American Medical Association, Chicago.

Crittenden, S.S.
1903 *The Greenville Century Book*. Press of Greenville News, Greenville, South Carolina.

DeBow, J.D.B.
1854 *Statistical View of the United States*. A.O.P. Nicholson, Washington, D.C.

Drucker, Lesley, Ronald Anthony, Susan Jackson, Susan Krantz, and Carl Steen
1984 *An Archaeological Study of the Little River-Buffalo Creek Special Land Disposal Tract*. Carolina Archaeological Services, Columbia. Submitted to U.S. Army Corps of Engineers, Savannah District, Savannah, Georgia.

Fike, Richard E.
1987 *The Bottle Book: A Comprehensive Guide to Historic, Embossed Medicine Bottles*. Peregrin Smith Books, Salt Lake City, Utah.

Ford, Lacy K., Jr.
1988 *Origins of Southern Radicalism: The South Carolina Upcountry, 1800-1860*. Oxford University Press, New York.

Garrow, Patrick H.
1982a *Archaeological Investigations on the Washington, D.C. Civic Center Site*. Soil Systems, Inc., n.p. Submitted to Historic Preservation Office, Department of Housing and Community Development, Government of the District of Columbia.

1982b Artifact Analysis. *Archaeological Investigations on the Washington, D.C. Civic Center Site*. Soil Systems, Inc., n.p. Submitted to Historic Preservation Office, Department of Housing and Community Development, Government of the District of Columbia.

Goldberger, Joseph, G.A. Wheeler, and Edgar Sydensticker
1918 A Study of the Diet of Nonpellagrous and of Pellagrous Households in Textile Mill Communities in South Carolina in 1916. *Journal of the American Medical*

Association 71:944-949.

1920a A Study of the Relation of Factors of a Sanitary Character to Pellagra Incidence in Seven Cotton-Mill Villages of South Carolina in 1916. *Public Health Reports* 35(29):1701-1714.

1920b *A Study of the Relation of Family Income and Other Economic Factors to Pellagra Incidence in Seven Cotton-Mill Villages of South Carolina in 1916.* Reprint 621. U.S. Public Health Service, Treasury Department, Washington, D.C.

Goldfield, David R.

1982 *Cotton Fields and Skyscrapers: Southern City and Region.* John Hopkins University Press, Baltimore.

Greer, Georgeanna

1977 Alkaline Glazes and Groundhog Kilns: Southern Pottery Traditions. *Antiques* 111:68-773.

1981 *American Stonewares.* Schiffer, Exton, Pennsylvania.

Hall, Jacquelyn, James Leloudis, Robert Korstad, Mary Murphy, Lu Ann Jones, and Christopher B. Daly

1987 *Like a Family: The Marking of a Southern Cotton Mill World.* University of North Carolina Press, Chapel Hill.

Haselton, George M.

1974 Some Reconnaissance Geomorphological Observations in Northwestern South Carolina and Adjacent North Carolina. *Geologic Notes* 18(4):60-67.

Historic Preservation Consulting

1990 *Granby Mill Village Historic Survey.* Prepared by Historic Preservation Consulting, Inc., Columbia.

Huggins, Phillip K.

1971 *The South Carolina Dispensary: A Bottle Collector's Atlas and History of the System.* Sandlapper Press, Inc., Columbia, South Carolina.

Jackson, Susan

1986 Artifact Patterns and Site Profiles. In *Home Upriver:Rural Life on Daniel's Island, Berkeley County, South Carolina*, edited by Martha Zierden, Lesley Drucker, and Jeanne Calhoun, pp. 7-72 - 7-81. The Charleston Museum and Carolina Archaeological Services, Columbia. Submitted to the South Carolina Department of Highways and Public Transportation, Columbia.

Jeter, Paul

1987 *South Carolina Beverage Bottles, 1880-1980.* Published by the author.

Johnson, Thomas F.

1970 *Paleoenvironmental Analysis and Structural Petrogenesis of the Carolina Slate*

Belt near Columbia, South Carolina. Unpublished M.S. Thesis, Department of Geology, University of South Carolina, Columbia.

Jones, Olive and Catherine Sullivan
1985 *The Parks Canada Glass Glossary*. National Historic Parks and Sites Branch, Ottawa.

Joseph, J.W.
1989 Pattern and Process in the Plantation Archaeology of the Lowcountry of Georgia and South Carolina. *Historical Archaeology* 23:55-68.

Joseph, J.W., Mary Beth Reed, Charles E. Cantley, Ted. A. Rathbun, Steve Persons, Thomas R. Wheaton, Jr., Janet Maione, Joseph Gainey, and Richard T. Bryant
1991 *Agrarian Life, Romantic Death: Archaeological and Historical Testing and Data Recovery for the I-85 Northern Alternative, Spartanburg County, South Carolina*. Technical Report 39. New South Associates, Stone Mountain, Georgia.

Kennedy, Fronde
1940 *A History of Spartanburg County*. Spartanburg Unit of the Writer's Program of the Works Progress Administration. Band and White, n.p.

Kohn, August
1907 *The Cotton Mills of South Carolina*. Daggett Printing, Charleston, South Carolina.

Kovel, Ralph and Terry Kovel
1986 *Kovels' New Dictionary of Marks: Pottery & Porcelain, 1850-Present*. Crown Publishers, New York.

Leibowitz, Joan
1985 *Yellow Ware: the Transitional Ceramic*. Schiffer Publishing, Exton, Pennsylvania.

Lewis, Kenneth E.
1979 *The Gillebeau House: An Eighteenth Century Huguenot Structure in McCormick County, South Carolina*. Research Manuscript Series 145. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Lincoln, Samuel B.
1960 *Lockwood Greene: The History of an Engineering Business, 1832-1958*. The Stephen Greene Press, Brattleboro, Vermont.

Lipscomb, Terry W.
1991 *Battles, Skirmishes, and Actions of the American Revolution in South Carolina*. South Carolina Department of Archives and History, Columbia.

Logan, John
1859 *A History of the Upper Country of South Carolina from the Earliest Periods to the Close of the War of Independence*. Vol. 1. n.p., Charleston, South

Carolina.

Lorraine, Dessamae
1968 An Archaeologist's Guide to Nineteenth Century American Glass. *Historical Archaeology* 2:35-44.

Lowry, M.W.
1934 *Reconnaissance Erosion Survey of the State of South Carolina*. U.S. Department of Agriculture, Soil Conservation Service, Washington, D.C.

Lupold, John S.
1989 William Gregg. In *Encyclopedia of Southern Culture*, edited by Charles Reagan Wilson, William Ferris, Ann J. Abadie, and Mary L. Hart, p. 743. University of North Carolina Press, Chapel Hill.

Luscomb, Sally C.
1967 *The Collector's Encyclopedia of Buttons*. Crown, New York.

Michie, James L.
1987 *Richmond Hill and Wachesaw: An Archaeological Study of Two Rice Plantations on the Waccamaw River, Georgetown County, South Carolina*. Research Series 203. S.C. Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Miller, George
1980 Classification and Economic Scaling of 19th Century Ceramics. *Historical Archaeology* 14:1-40.

1991 A Revised Set of CC Index Values for Classification and Economic Scaling of English Ceramics from 1787 to 1880. *Historical Archaeology* 25:1-25.

Mills, Robert
1972[1826] *Statistics of South Carolina*. Hurlbut and Lloyd, Charleston, South Carolina. 1972 facsimile ed. The Reprint Company, Spartanburg, South Carolina.

Nelson, Lee
1968 *Nail Chronology as an Aid to Dating Old Buildings*. Technical Leaflet 48. American Association for State and Local History, Nashville.

Oates, Mary J.
1989 Industrialization in the Piedmont. In *Encyclopedia of Southern Culture*, edited by Charles Reagan Wilson, William Ferris, Ann J. Abadie, and Mary L. Hart, pp 729-731. University of North Carolina Press, Chapel Hill.

Orser, Charles E., Jr.
1988 *The Material Basis of the Postbellum Tenant Plantation: Historical Archaeology in the South Carolina Piedmont*. University of Georgia Press, Athens.

Orser, Charles E., Jr., Annette M. Nekola, and James L. Roark
1982 *Exploring the Rustic Life: Multidisciplinary Research at Millwood Plantation, A Large Piedmont Plantation in Abbeville County, South Carolina and Elbert*

County, Georgia. National Park Service, Atlanta.

Otto, John S.
1984 *Cannon's Point Plantation, 1794-1850: Living Conditions and Status Patterns in the Old South*. Academic Press, New York.

Payne, Ted M. and Richard H. Hulan
1986 *U.S. 21 Relocation, City of Laurens, Laurens County, South Carolina: An Archaeological / Historical Study*. MAAR Associates, Newark, Delaware.

Peacock, Primrose
1972 *Antique Buttons, Their History and How to Collect Them*. Drake Publications, New York.

Price, Cynthia R.
1979 *19th Century Ceramics in the Eastern Ozark Border Region*. Monograph Series 1. Center for Applied Archaeological Research, Southwest Missouri University, Springfield.

Priess, Peter J.
1971 History Swings on a Poorly Described Hinge: Reflections on the State of Research in Building Hardware. *The Association for Preservation Technology Bulletin* 3(4):31-39.

Racine, Phillip N.
1980 *Spartanburg County, A Pictorial History*. Donning, Virginia Beach.

Ramsay, John
1947 *American Potters and Pottery*. Tudor, New York.

Richardson, James M.
1980[1930] *History of Greenville County, South Carolina*. A.H. Cawston, Atlanta. 1980 reprint, Reprint Press, Spartanburg, South Carolina.

Simpson, William Hayes
1943 *Life in Mill Communities*. PL Press, Clinton, South Carolina.

Singleton, Theresa
1980 *The Archaeology of Afro-American Slavery in Coastal Georgia: A Regional Perception of Slave Household and Community Patterns*. Ph.D. dissertation, University of Florida, Gainesville. University of Microfilms, Ann Arbor.

Smith, Roy McBee
1992 *Vardry McBee, 1775-1864: Man of Reason in an Age of Extremes*. R.L. Bryan, Columbia.

South, Stanley
1964 Analysis of the Buttons from Brunswick Town and Fort Fisher. *The Florida Anthropologist* 17(2):113-133.

1974 *Palmetto Parapets*. Anthropological Studies 1. S.C. Institute of Archaeology

and Anthropology, University of South Carolina, Columbia.

1977 *Method and Theory in Historical Archaeology*. Academic Press, New York.

1989 Whither Pattern? *Historical Archaeology* 22:25-28.

Spillman, Jane S.
1982 *Glass, vol. 1: Tableware, Bowls and Vases*. Alfred A. Knopf, New York.

Sprague, Roderick
1981 A Functional Classification for Artifacts from 19th and 20th Century Historical Sites. *North American Archaeologist* 2:251-261.

Stayner, Debra M.
1976 *Southern Mill Villages*. Unpublished Master's Thesis. Department of Geography, University of South Carolina, Columbia.

Stine, Linda France
1989 *Raised Up in Hard Times: Factors Affecting Material Culture on Upland Piedmont Farmsteads Circa 1900-1940*. Unpublished PhD. dissertation. Department of Anthropology, University of North Carolina, Chapel Hill.

Swanton, John R.
1946 *The Indians of the Southeastern United States*. Bulletin 137. Bureau of American Ethnology, Washington, D.C.

Trimble, Stanley W.
1974 *Man-Induced Soil Erosion on the Southern Piedmont, 1700-1970*. Soil Conservation Society of America, Ankey, Iowa.

Toulouse, Julian H.
1971 *Bottle Makers and Their Marks*. Thomas Nelson, Inc., New York.

1977 *Fruit Jars*. Everybodys Press, Inc. Hanover, Pennsylvania.

Trigger, Bruce
1978 *Time and Traditions: Essays in Archaeological Interpretation*. Columbia University Press, New York.

Trinkley, Michael (editor)
1993 *The History and Archaeology of Kiawah Island, South Carolina*. Chicora Foundation Research Series 30, in press.

Trinkley, Michael and Debi Hacker
1992 *The Economic and Social History of Tobacco Production in South Carolina*. Chicora Foundation, Inc., Columbia.

Trinkley, Michael and Natalie Adams
1992 *Archaeological, Historical, and Architectural Survey of the Gibson Plantation Tract, Florence County, South Carolina*. Chicora Foundation Research Series 33.

Trinkley, Michael and Olga Caballero

1983a *U.S. 521 Relocation, Sumter County, South Carolina: An Archaeological Survey of an Inter-Riverine Upper Coastal Plain Locality*. S.C. Department of Highways and Public Transportation.

1983b *Additional Archaeological, Historical, and Architectural Evaluation of 38HR127 and 38HR131: Examples of Nineteenth and Twentieth Century Subsistence Farming*. S.C. Department of Highways and Public Transportation, Columbia, S.C.

Trinkley, Michael and Debi Hacker

1986 Historic Artifacts. In *Indian and Freedmen Occupation of the Fish Haul Site (38BU805), Beaufort County, South Carolina*, edited by Michael Trinkley, pp. 214-281. Research Series 7. Chicora Foundation, Inc., Columbia.

Trinkley, Michael, Jeanne Calhoun, and Debi Hacker-Norton

1985 *Archaeological and Historical Investigations at 38SU81, 38SU82, 38SU83, and 38SU862*. S.C. Department of Highways and Public Transportation.

Wheaton, Thomas R., Amy Friedlander, and Patrick Garrow

1983 *Yaughan and Curriboo Plantations: Studies in Afro-American Archaeology*. Soil Systems, Inc., Marietta, Georgia. Submitted to National Park Service, Archaeological Services Branch, Atlanta.

Wilson, Rex

1981 *Bottles on the Western Frontier*. University of Arizona Press, Tucson.

Worthy, Linda

1982 Classification and Interpretation of Late Nineteenth Century Ceramics. In *Archaeology of Urban America: The Search for Pattern and Process*, edited by Roy S. Dickens, pp. 329-360. Academic Press, New York.

Zierden, Martha A. and Jeanne A. Calhoun

1983 *An Archaeological Assessment of the Greenfield Borrow Pit, Georgetown County*. The Charleston Museum, Charleston, South Carolina.

1984 *An Archaeological Preservation Plan for Charleston, South Carolina*. Archaeological Contributions 8. The Charleston Museum, Charleston, South Carolina.

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