INTRODUCTION

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Background and Research Orientation

The prehistoric component of the Fish Haul site went unrecognized until May 1982 when the property owner at that time, John Crago, and his foreman, Jerre Weckhorst, discovered a quantity of pottery while digging to lay water lines and grading for subdivision roads. The historic component was probably known by a handful of local collectors, but fortunately had not produced sufficient "finds" to give it much prominence. Weckhorst notified The Charleston Museum of the site and donated the prehistoric material to that institution (Accession Number 1982.63) in June 1982. The site attracted professional interest because of the quantity of material unearthed, its depth below the present surface, and the size of the sherds recovered. While the significance of the prehistoric component was easily recognizable, the historic material looked rather unspectacular at that time.

In spite of the site's potential prehistoric significance and its impending development, no funds for site testing could be obtained from the property owner or state agencies. Consequently, in July 1982, a small group of professional archaeologists volunteered their time to work on the site. In addition, a number of local people participated in the work and 96 person hours were spent at the site from July 24 to July 26. Three 10-foot squares were excavated in an area of suspected high prehistoric artifact density (Figure 1) and two 5-foot squares were excavated on the bluff edge overlooking the marsh. Initially, these tests were placed to examine the prehistoric artifact density adjacent to the marsh, but the excavations suggested a light prehistoric occupation and instead, a noticeable nineteenth century historic presence. The collections from this study are curated at The Research Laboratories of Anthropology, University of North Carolina, Chapel Hill, as Accession Number 2345.

This initial work had essentially one goal, that of assessing the variety and significance of the remains at Fish Haul. The excavation strategy was designed to obtain valid research information from several site areas known or suspected to contain abundant remains, not to obtain a sample of remains from the entire tract. The results from this early, very preliminary, work clearly demonstrated that the prehistoric component consisted primarily of Stallings phase remains, although later ceramics were found. This Stallings occupation lacked a shell midden but was sealed below 1.0 to 1.5 feet of sterile soil, preserving horizontal and vertical

stratigraphy. Both features and post holes were recovered and analyses demonstrated the presence of ethnobotanical, faunal, and shellfish remains from the one excavated feature. Research at this site, known as Fish Haul for the subdivision in which it was located, could provide significant information on the settlement and subsistance of non-shell Stallings phase sites (Trinkley and Zierden 1983).

Just as significantly, the historical research, combined with the archaeological study of the recovered nineteenth century artifacts, revealed the site to be part of Mitchelville, an obscure freedmen's village, built after Hilton Head fell to Union troops in 1861. The historic component, then, was felt to be significant for the information it could provide on the black cultural response to sudden freedom. The site could "bridge the gap" between our knowledge of early nineteenth century slave lifestyle and that of the freedmen tenant farmer in the late nineteenth century.

For reasons unrelated to the archaeological significance of the site, the planned single family residental Fish Haul subdivision failed to proceed and development was eventually abandoned. Several local individuals, however, remained concerned about the site and sought funds to study more fully its potential. Simultaneously two events transpired which would eventually assure that the Fish Haul site would receive at least a minimal level of professional study. The property was sold by its original developer, John Crago, to Louis Jaffe, who intended to build high density condominiums on the property. The threat to the archaeological resources at Fish Haul was recognized by a number of local individuals who were also beginning to organize The Environmental and Historical Museum of Hilton Head Island. Funding was sought and obtained by these individuals from both the developer and the State Budget and Control Board (which controls the allocation of Accomodation Tax monies to local agencies for the promotion of tourism). The use of the Accomodation Tax Revenues to conduct archaeological study is a novel, but certainly appropriate, use of money earmarked to promote tourism. Historic preservation has long been recognized to be a factor in the development and maintenance of a tourism industry. At Fish Haul site tours were led by Museum guides and over 600 people were introduced to the prehistory and history of Hilton Head Island. They were also introduced to archaeology and archaeological techniques.

Chicora Foundation, Inc. was chosen by the Museum's Board of Directors to conduct the historical and archaeological investigations at Fish Haul, based upon its proposal, submitted in December 1985. Unfortunately, the full scope of research proposed by Chicora in December could not be funded and a revised proposal was submitted in January 1986, with a contract for the work signed on March 5,

1986. Work was begun on March 9, 1986 and continued for nine weeks to May 9. Laboratory processing and analysis continued in Columbia and Charleston after that date. The collections from this project are curated by the Environmental and Historical Museum of Hilton Head Island as Accession Number 1986.1.

The research design for the Fish Haul study, while more elaborate than that used in 1982, still recognized that much was unknown about the site and, also, that this work, like that performed in 1982, might represent the last opportunity for scholarly study at Fish Haul. Consequently, at one level the research performed at Fish Haul will evidence obvious descriptive objectives. That is, this work will offer detailed descriptions of the site, the excavation and analysis methods, and the recovered artifacts. As Adams has succintly noted, "[i]nterpretations can and will change, but the data recovered will not change" (Adams 1985:8). While descriptive statements without an attempt at or an interest in analytic interpretation is Boasian particularism at its worst and rightly elicits a response of dread, it may be that reports which balance both a thorough, accurate description of the data and a reasonable, cautious interpretation may survive the test of time better than those reports which do little more than cleverly frame questions and adroitly manipulate data.

At another level, however, this study was guided by relatively simple, but fundamental, explanatory objectives. These research questions begin to flesh out the descriptive study by asking who lived at the Fish Haul site, what was life like for those people, when was the site occupied, and where the occupants lived at the site. In addition to these synchronic questions, it is important to view the Fish Haul research also from a diachronic perspective and ask how and why the lifestyle changed over time.

Based on the broad parameters of the descriptive and explanatory goals just discussed, it was possible to formulate more specific research questions which were felt to be answerable given the previous work at the site. For the Stallings occupation questions regarding subsistence, settlement, and culture history were proposed. With the historic Mitchelville component the descriptive and explanatory goals were much the same as for the prehistoric Stallings occupation and they assumed a very significant role since little was known about Mitchelville or the blacks' cultural experience during the early days of freedom. Of special interest was a thorough analysis and descriptive study of the site's material culture. As will be discussed in a subsequent chapter, the role of Hilton Head and especially Mitchelville, has been largely overlooked by previous discussions of the "Port Royal Experiment," so there was little historical information in the secondary sources on

which to base the archaeological research. Questions regarding the effects of sudden freedom on Afro-American culture, and the social organizations and group dynamics of the town were examined by the Mitchelville excavations.

Stallings Subsistence

Fish Haul offers the potential to deal effectively with subsistence questions from the Stallings component. The presence of intact features which contain ethnobotanical, faunal, and shellfish remains is significant as each subsistence category is capable of providing not only subsistence data, but also information on seasonality and micro-environmental reconstructions. For this data to be useful it must be consistently gathered and carefully quantified. Recent work by Wing and Quitmyer (1985) demonstrates that use of 1/4-inch mesh alone at coastal sites for the recovery of faunal remains introduces a significant bias into subsistence reconstructions. Although 1/4-inch mesh is frequently regarded by coastal archaeologists as "fine screening," it selects against the recovery of small invertebrates, fish, and plant food remains. As a result, subsistence reconstructions emphasize shellfish and large mammals. Use of 1/16-inch mesh dramatically increases the number of specimens recovered and the minimum estimate of meat. The work at Fish Haul was designed to collect, identify, and quantify all aspects of the diet, so that a realistic approximation of the aboriginal subsistence strategy might be offered.

Seasonality of coastal sites typically has been addressed by an examination of a narrow range of subsistence items, such as the presence or size of certain species. Recent work begun on the coast by Clark (1979) and continued by Classen (1982) and Quitmyer et al. (1985) has demonstrated the usefulness of the clam (Mercenaria mercenaria) as a seasonal indicator. Clam has proven to provide an exceptionally clear indication of its season of death. From there it is up to the archaeologist to demonstrate, first, that the specimen died from intentional human collection and second, what the information ultimately means. Even more recently, Lawrence (see this volume) has perfected a technique which uses the configuration and size of the right hinge of the oyster (Crassostrea virginica) to indicate its season of death. These studies, because they are so accurate, because they date items which are generally in abundance at coastal sites, and because the shellfish were apparently not stored for later use, are of considerable use to coastal archaeologists. However, like other forms of seasonal dating (i.e., the use of faunal or floral remains) they can only provide information on when the site was occupied, not on when it was abandoned.

Questions regarding seasonality are of paramount importance since by the late Thom's Creek phase some groups, through careful scheduling and exploitation of the rich coastal environment, apparently had established permanent villages on the coast (Trinkley 1980c, see also DePratter 1979b). Seasonality data from sites such as Fish Haul are necessary if we wish ever to understand how, why, and when the change from a nomadic, foraging way to life to a settled lifestyle occurred.

Stallings Settlement

Very little is known concerning the Stallings (Claflin 1931) phase settlement pattern, either on an intra or inter-site level. Although it is not possible to answer many questions about inter-site patterning based on one site, Fish Haul represents a type of site that is not commonly identified or studied. Consequently, Fish Haul has the potential to contribute information which will assist us in more completely understanding the range of typical settlement pattern variation. DePratter (1979b:37) has tended to view non-shell midden Stallings sites as representing "only limited occupation in marginal areas." Saunders (1985:166) has recently taken exception to this settlement reconstruction, noting that non-shell midden sites are abundant, are located in prime environmental areas, and span considerable time. None of these non-shell midden sites have been studied in sufficient depth to determine whether they represent limited occupation as suggested by DePratter (1979b) or "a limited segment of a diversified settlement system" (Stoltman 1972:51), i.e., loci of specific activities, which either by choice or circumstances, did not include intensive shellfish collection.

The Fish Haul site may also evidence a number of spatially discrete Stallings occupation areas. The use of radiocarbon dating, seasonality studies, and artifact typology may reveal whether these discrete loci represent synchronic or diachronic occupations.

Stallings Culture History

Because the Stallings zone is up to 1.5 feet in thickness, there may be sufficient depth to allow studies of artifact change over time. Previous work by Trinkley and Zierden (1983) has suggested temporal changes of the decorative motifs of Stallings pottery. Similar change is suggested in projectile point forms. Excavation and analysis of the Stallings zone by thinner levels than were used in the original study may provide better temporal control.

The question of cultural continuity is also worthy of consideration. Previous study of the subsistence, settlement pattern, and ceramics has suggested that change was sometimes quite slow. The stability and apparent cultural conservation of the Early Woodland is reflected in the strong similarities of the Stallings and Thom's Creek Cultures over almost 1000 years.

Mitchelville Research

The site of Mitchelville presents an excellent opportunity to study the effects of sudden freedom and other rapid changes on Afro-American culture. Only one similar study has been conducted on the Southeastern Atlantic coast (Singleton 1979), although the controversial work of Fogel and Engerman (1974) did suggest that slavery might be understood by comparing it with the life of postbellum freedom. A similar technique is used by Cranton (1978) with the Worthy Park data from Jamaica. Data from Mitchelville, the home of at least 1500 newly-freed blacks during and immediately after the Civil War, should provide important information on this subject.

Changes from slavery to freedom may be evidenced in a study of artifact pattern analysis (which emphasizes the types and quantities of various artifact classes), the use of ceramics to indicate status, and the presence or absence of certain specific artifacts (such as military objects). The presence of colono ware pottery at Mitchelville adds a tantalizing piece of information to the study of this pottery type. Colono ware was originally thought to be present on Anglo-American and Afro-American sites as a result of Indian trade or possible Indian slave manufacture. The presence of this ware on eighteen and early nineteenth century plantation sites and, more recently, on urban sites has led archaeologists to suggest that this ware may be the product of black slaves (Ferguson 1980, see also Ferguson 1985). While work continues to piece together the Colono ware puzzle, the presence of this ceramic at a mid to late nineteenth century freedmen's village suggests that its manufacture by blacks lasted longer than previously thought.

Although it was recognized from the outset of the project that the work to be performed at Mitchelville would not expose or allow the study of a great many structures, it was determined that questions of social organization, group dynamics, and group interactions should be considered. What were being examined were structures within a village or small town -- not isolated farmsteads. Work performed at the nineteenth century New Jersey site of Skunk Hollow (Geismar 1982) suggests that such an approach, if it is used with

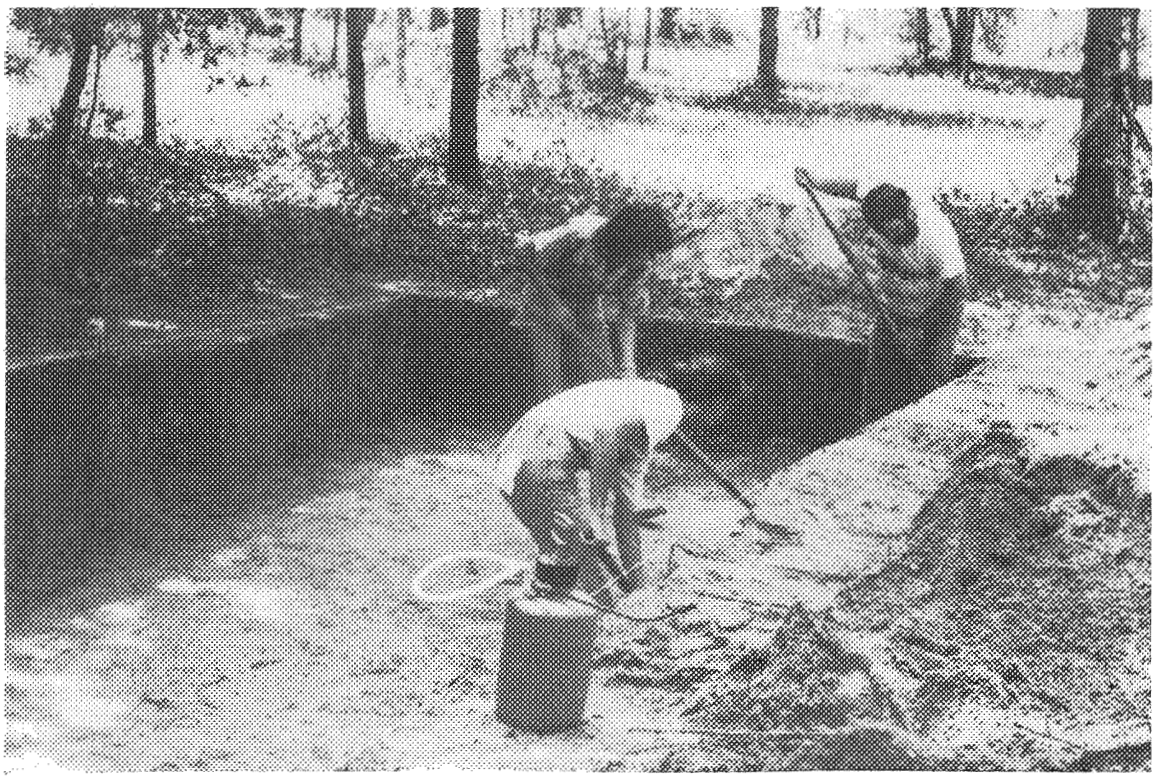

Figure 1. 1982 excavations in squares 80-100R100, looking southeast toward Fish Haul (Coggins) Creek.

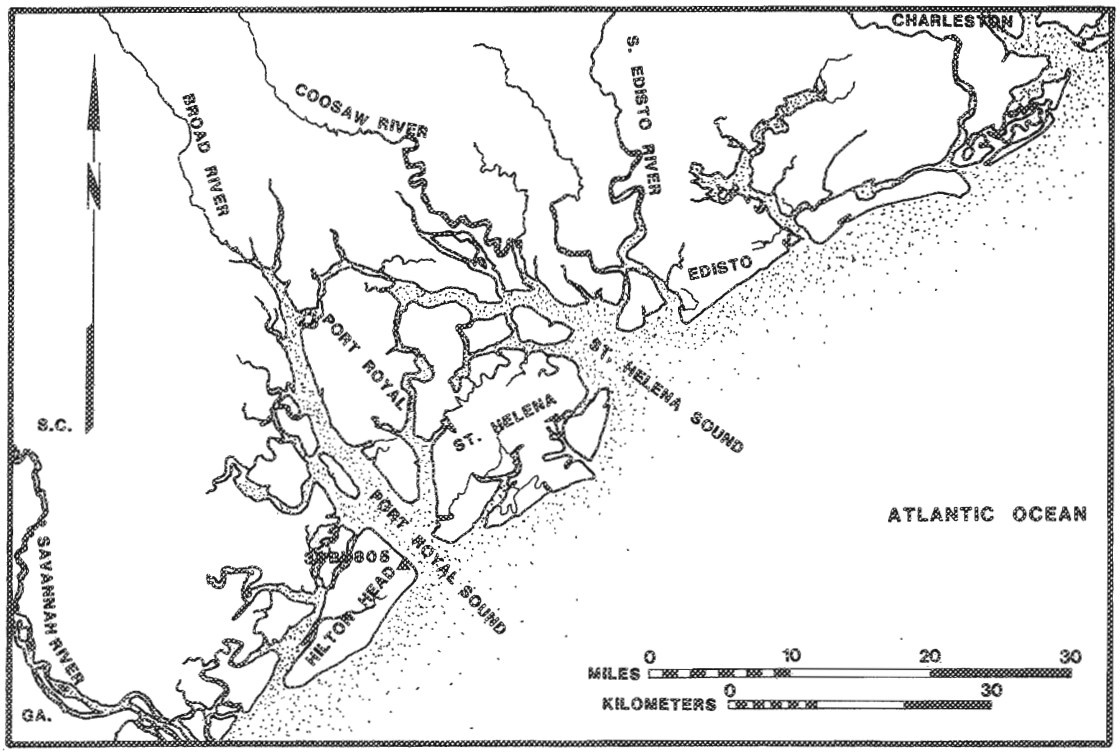

Figure 2. Vicinity of Hilton Head Island, Beaufort County, South Carolina.

thorough historical documentation, may yield a clearer view of the community's rise and eventual disintegration. The comparative, quantitive analysis on which this approach is dependent, however, requires information on the placement and identification of a number of structures. Such information was not expected to be abundant for Mitchelville but the data from this freedmen's village was still thought to be worthy of this intensive effort.

Natural Setting

The Fish Haul site, which encompasses about 15 acres, is situated on the north end of Hilton Head Island, Beaufort County, South Carolina, and is bounded to the north by Port Royal Sound, to the east by Coggins Creek (also known historically as Fish Haul Creek), to the south by a low, poorly drained slough (known on at least one nineteenth century map as "Pope Gall"), and to the west by Beach City Road (S-33). The site is about 14 miles (22 kilometers) south of the city of Beaufort, 58 miles (94 kilometers) southwest of Charleston, and 27 miles (44 kilometers) northeast of Savannah (Figure 2). The UTM central coordinates are 529450 East and 3566440 North (Zone 17).

Physiographic Province

Hilton Head Island is a sea island located between Port Royal Sound to the north and Daufuskie Island to the south. The island is separated from Daufuskie Island by Calibogue Sound and from the mainland by a narrow band of tidal marsh and Skull Creek. Between Hilton Head Island and the mainland are several smaller islands, including Pinckney and Jenkins islands.

Hilton Head is situated in the Sea Island section of South Carolina's Coastal Plain province. The coastal plain consists of the unconsolidated sands, clays, and soft limestones found from the fall line eastward to the Atlantic Ocean, an area of more than 20,000 square miles or about two-thirds of the State (Cooke 1936:1-3). Elevations range from just above sea level on the coast, to about 600 feet mean sea level (MSL) adjacent to the Piedmont province. The coastal plain is drained by three large through-flowing rivers -- the Pee Dee, Santee, and Savannah -- as well as by numerous smaller rivers and streams. The coastal plain may be arbitrarily divided into three general regions: the inner coastal plain, the middle coastal plain, and the outer coastal plain.

The inner and middle coastal plain regions are similar in many aspects, although relief is quite different. The inner coastal plain exhibits rolling hills adjacent to the fall line, steep bluffs along major rivers, and other evidence of considerable weathering. The middle coastal plain, however, is relatively flat and contains freshwater marshes, savannahs, river swamps, and Carolina bays (Barry 1980:126-135). As one moves toward the coast, the area of swamp land increases and the dry land ceases to be continuous and is, instead, broken into islands separated by fresh and salt water swamps or marshes (see Fenneman 1938). From the North Carolina line to about Winyah Bay the coast is characterized by a stable, smooth, concave curve, broken by few tidal inlets. This area has been classified as an arcuate strand (Brown 1975; Smith 1933). From Winyah Bay southward for about 20 miles (32 kilometers) lies South Carolina's Cuspate Foreland, an area characterized by an eroding cape and deposition through the formation of recurved spits to the west and north. This area has been heavily affected by the diversion of the Santee River in 1941. An area which previously had been prograding began to erode at a rate of up to 900 feet (277 meters) since 1941 (Brown 1975:2231). From Bull Bay southward, South Carolina's coast presents a different picture. The area is characterized by low-lying, sandy islands bordered by salt marsh. Brown (1975) classes these islands as either Beach Ridge or Transgressive, with the Transgressive barrier islands being straight, thin pockets of sand which are rapidly retreating landward with erosion rates of up to 1600 feet (492 meters) since 1939. The Beach Ridge barrier islands, however, are more common and consist of islands such as Kiawah and Hilton Head. They are characterized by a bulbous updrift (or northern) end.

Kana (1984) discusses the coastal processes which result in the formation of barrier islands, noting that the barrier island system includes tidal inlets at each end of the barrier with the central part of the island tending to be arcuate in shape while the ends of the island tend to be broken. Sand transport tends to be southward, producing a characteristic curved spit growing in a downdrift of southeast direction. The inlets at either end of the barrier influence the shape of the island through the development of offshore deltas. These deltas produce shoals, which cause waves to bend or break before reaching the shore and thereby creating sheltered areas. Hilton Head Island, however, is slightly different from other islands, partially because of its proximity to the very large Port Royal tidal inlet. The tidal delta extends further offshore than usual and the nearby islands tend to be more irregular in shape. Hilton Head has the typical central bulge caused by sand wrapping around the tidal delta and then depositing midway down the island. Further, the south end has an accreting spit where sand is building out the shoreline. The central part of the

island, however, has experienced a 25-year erosion trend averaging 3 to 10 feet (0.9 to 3 meters) a year (Kana 1984:11-12). During the period from 1952 to 1970, the most serious erosion occurred at the north end of the island where about 17 feet (5.2 meter) a year were lost (U.S. Army Corps of Engineers 1971). The National Ocean Service, in cooperation with the Coastal Engineering Research and Statistical Services of the State of South Carolina compiled maps showing coastal erosion between 1859 and 1983 (Shoreline Movement Maps, Folder 1, S.C. Department of Archives and History). This study indicates that erosion in the vicinity north of Coggins Creek during this period was about 900 feet (277 meters), while to the south the erosion has been as much as 400 feet (123 meters) (Figure 3).

Hilton Head Island, however, is also a different shape than most other islands since it has a Pleistocene core with a Holocene beach ridge fringe. To understand fully the significance of this situation, it is important to realize that technically the sea islands and the barrier islands are quite different from a historical perspective. The classic sea islands of colonial and antebellum fame (such as James, St. Helena, and Sapelo islands) are erosional remnants of coastal sand bodies deposited during the Pleistocene high sea level stands. They are crudely elongate, parallel to the present day shoreline, and rectangular in outline. Their topography is characterized by gentle slopes, and poorly defined ridges and swales. Maximum elevations typically range from 5 to 35 feet (1.5 to 10.7 meters) MSL. In contrast, barrier islands were deposited during the Holocene high level stand. They are composed of beach dune ridges oriented parallel to subparallel with the present shoreline. The topography contains locally steep slopes and elevations range from 10 to 25 feet (3.1 to 7.7 meters) MSL. Typical barrier islands include Pawleys, Kiawah, and Hunting islands. There are, in addition, marsh islands, such as Morris and St. Phillips islands, composed of isolated or widely spaced Holocene sand ridges surrounded by Holocene salt marsh (Mathews et al. 1980).

Some islands, such as Hilton Head (S.C.), Daufuskie (S.C.), and St. Catherines (Ga.), however, have an oceanward fringe of beach dune ridges which were constructed during the Holocene high sea level stands (Mathews et al. 1980:65-71; Ziegler 1959). Ziegler (1959:Figure 6) suggests that Hilton Head Island is composed of several sea or erosion remnant islands, joined together by recent Holocene deposits. The Coggins Creek area is primarily contained within the Holocene formation.

Hilton Head Island is about 11.5 miles (18.5 kilometers) in length and has a maximum width of 6.8 miles (10.9 kilometers), yielding 19,460 acres (7,876 hectares) of highland and 2400 acres (971 hectares) of marsh (Figure 4).

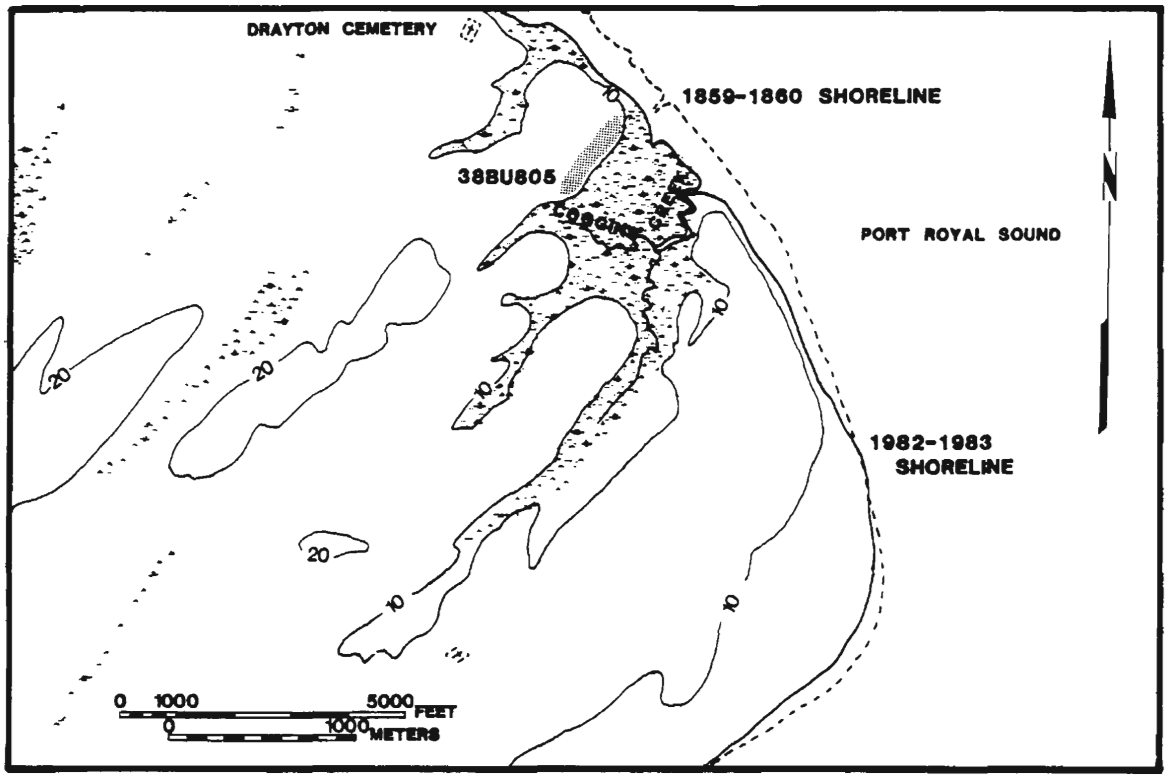

Figure 3. Shoreline erosion in the vicinity of Coggins Creek between 1859 and 1983.

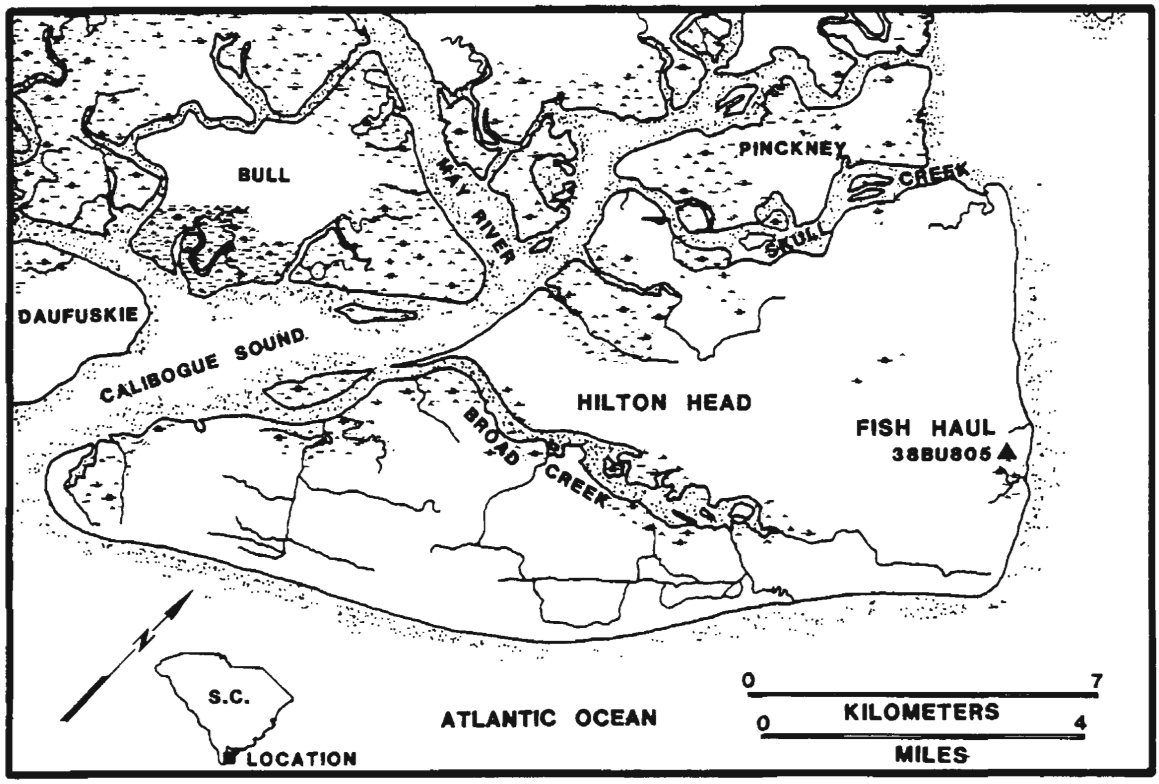

Figure 4. Hilton Head Island.

Elevations range from sea level to 21 feet (6.4 meters) at the top of the highest natural beach ridges. Tidal range is 6.6 to 7.8 feet (2.0 to 2.4 meters) (Mathews et al. 1980:68).

In the vicinity of the Fish Haul site the topography tends to be level, with only a gentle slope southward toward a low slough which has recently been converted to a fresh water lagoon. This slough originally served as localized drainage for an area extending about a half mile south of its opening into the Coggins Creek marsh. Elevations range from about 10 to 16 feet (3.1 to 4.9 meters) over the 5-acre tract, although the bank overlooking Coggins Creek is in places steep, dropping off to an elevation of 6 feet (1.8 meters). The broad, level plain of the Fish Haul tract is evidenced in Figure 5.

Soils

Within the Sea Island section of South Carolina the soils are Holocene and Pleistocene in age and were formed from materials that were deposited during the various stages of coastal submergence. The formation of soils in the study area is affected by this parent material (primarily sands and clays), the temperate climate (to be discussed later), the various soil organisms, topography, and time.

The mainland soils are Pleistocene in age and tend to have more distinct horizon development and diversity than the younger soils of the Sea Islands. Sandy to loamy soils predominate in the level to gently sloping mainland areas. The island soils are less diverse and less well developed, frequently lacking a well-defined B horizon. Organic matter is low and the soils tend to be acidic. The Holocene deposits typical of barrier islands and found as a fringe on some sea islands, consist almost entirely of quartz sand which exhibits little organic matter. Tidal marsh soils are Holocene in age and consist of fine sands, clay, and organic matter deposited over older Pleistocene sands. The soils are frequently covered by up to 2 feet (0.6 meter) of salt water during high tide. These organic soils usually have two distinct layers. The top few inches are subject to aeration as well as leaching and therefore are a dark brown color. The lower levels, however, consist of reduced compounds resulting from decomposition of organic compounds and are black. The pH of these marsh soils is neutral to slightly alkaline (Mathews et al. 1980:39-44).

Hilton Head consists of only three soil associations. On the upland areas are found the Wando-Seabrook-Seewee and Fripp-Banatari Associations. The first is usually the predominant association on the uplands of the sea islands and

is sandy throughout. The Wando soils are excessively drained, the Seabrook soils are moderately well drained, and the Seewee soils, found in the lower elevations are somewhat poorly drained. These are primarily Pleistocene in origin. The Fripp-Banatari Association consists of gently sloping to steep soils on narrow ridges and troughs which were formed in windblown marine sediments. These soils are associated with the Holocene deposits seaward on Hilton Head Island. Fripp soils are excessively drained, being found on the ridges, while the Baratari, in the troughs, are poorly drained. The third soil association -- Bohicket-CapersHandsboro -- is found in the lowland areas of the island, adjacent to tidal influenced creeks and along the north coast (Stuck 1980:6-8).

The Fish Haul site is today dominated by four soil types. The site is situated on a broad plain of Wando fine sands, bordered to the south by the Capers soils of Coggins Creek and the Rosedhu fine sands of the slough. To the north are similar Capers soils associated with an unnamed tidal inlet and Ridgeland fine sands also associated with this tidal creek (Stuck 1980:Map 94).

The Wando series consists of excessively drained, rapidly permeable soils formed in thick sandy coastal plain sediments. The soil is low in natural fertility and organic matter, has a pH of 5.6 to 7.3 throughout, and has a water table commonly below a depth of 6.0 feet (1.8 meters). The Ap horizon may be up to 0.8 foot (0.3 meter) in thickness and is a dark brown, friable, fine sand. The soil lacks a B horizon. The C horizon consists of a brown to pale yellow fine sand. Iron concretions up to 1 inch (2.5 centimeters) in diameter are found in some pedons of this soil (Stuck 1980:42-43, 85).

The Capers soils are poorly drained and formed in silty or clayey marine sediments. They are associated with broad tidal flats and are frequently flooded by salt water. A greenish gray clay is found at a depth of about 2.7 feet (0.8 meter) (Stuck 1980:64). The Rosedhu series consists of very poorly drained soils formed in thick sandy coastal plain sediment. The soils are found in low sloughs frequently subject to flooding and the water table is at or near the surface for about 8 months during the year (Stuck 1980:81). The Ridgeland fine sands, also formed in thick sandy sediments, are somewhat poorly drained and have a water table within 2.5 feet (0.8 meter) of the surface.

The Fish Haul site is situated on an elongated, high sandy ridge parallel to and bordered on both sides by low marsh areas bisected by salt water tidal creeks. The Wando soils typically have surface pH levels of 5.6 to 7.3. The average pH of 81 tests uniformly spaced over the 10-acre Fish Haul tract is 5.6 (tested using a pH meter), although the range is 4.4 to 7.3. These data indicate that the soil

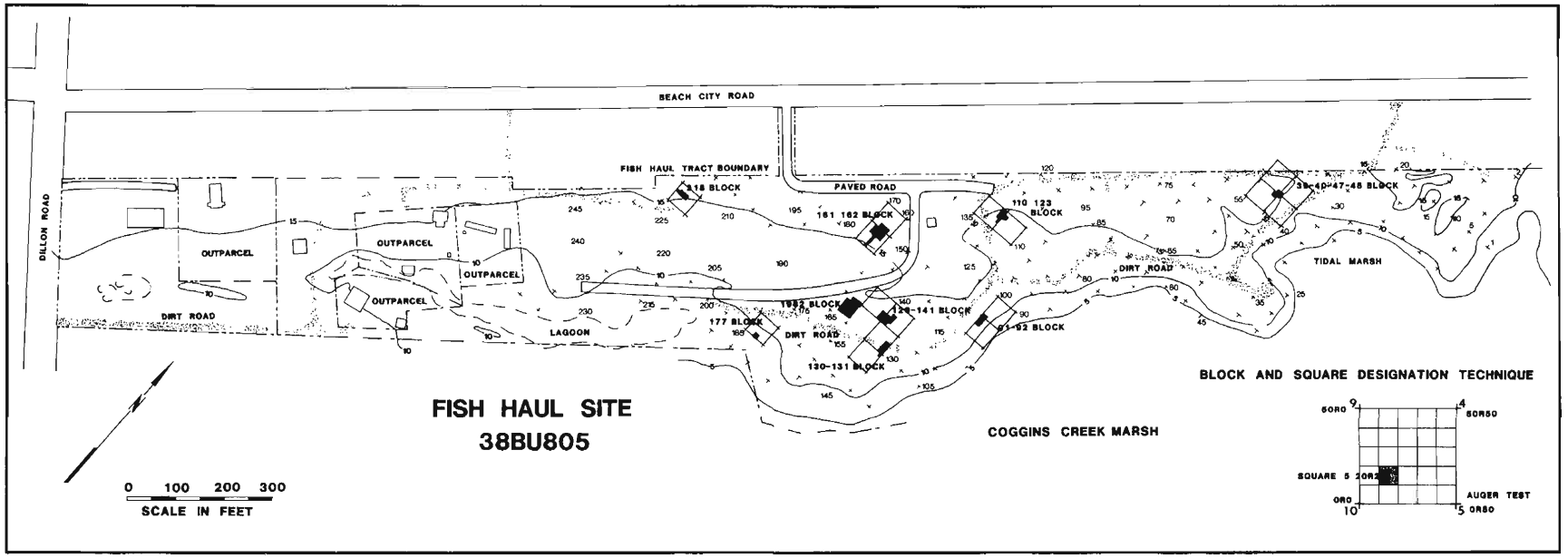

Figure 5. The Fish Haul tract, Hilton Head Island.

pH at the site is more acid than typical for Wando soils. In fact, pH readings of 4.5 to 5.0 are considered very strongly acid. Agriculture without periodic liming tends to lower soil pH (Allaway 1957) and pine forests tend to produce more acidic soils than hardwoods (Harper et al. 1957:738). While the forest vegetation is a recent phenomenon, agricultural practices are probably responsible for this low pH. There is historical evidence that the Fish Haul site was largely a cotton field during the antebellum period. The principal means for fertilizing these fields was to gather the fertile marsh mud and grass during the winter for application to the fields in the winter (Woofter 1930). This marsh mud contains sulfides, which once aerated and dried oxidizes to form sulfuric acid (Miller 1971:29). The resulting material, called catclay, would naturally lower the pH of any soil to which it was added. While this, over time, would have affected the ability of the cotton to obtain nutrients from the soil, the effects would not have been immediately noticeable since cotton is not a "lime-loving" plant (Duggar 1921:335). Since sweet potatoes, another commonly cultivated crop during the antebellum period, require the addition of humus to sandy soil (Duggar 1921:436-437), it may be that their cultivation also increased the acidity of the soil.

The total phosphorus level of the soil is low, with a range of 28.5 to 60 ppm (Don Halbick, personal communication 1986). Phosphorus does not readily migrate in the soil, being "fixed" within a few millimeters of its entry in the vertical profile (Eidt 1977:1328). Phosphorus, in the form of phosphate, is perhaps the macro-nutrient most indicative of human occupation. It is a component of feces and urine, and calcium phosphate is one of the primary minerals found in bone. Phosphorus levels at the Fish Haul site are noticeably high, ranging from a low of 10 ppm to a high of over 200 ppm. The average is 145 ppm. Examination of the spatial results indicated consistently low (85-120 ppm) to very low (less than 85 ppm) concentrations adjacent to the marsh at the bluff and over the bluff edge. Very low concentrations were also revealed northwest of the lagoon. Elsewhere the readings were generally high (157 ppm). Antebellum agriculture added little phosphorus to the soil and postbellum agriculture at the site is expected to have had little impact on the macro-nutrients in the soil. Consequently, these high readings may be directly attributable to intensive historic occupation at the site.

The antebellum occupants did not always recognize the nature of the soil under their feet, as evidenced by Nordoff's observations upon seeing Hilton Head for the first time in 1863,

> [t]he soil on which the famous long staple cotton was -- and is -- grown, instead of the rich black mould which I expected to

> find it, is a pale yellow sand, which seems to you useless for agricultural purposes, till you notice that it glistens with white particles, which are the pulverized shells, the lime of which gives the soil its strength and substance (Nordoff 1863b:111).

Geology

The Sea Island coastal region is covered with sands, silts, and clays originally derived from the Appalachian Mountains and which are organized into coastal, fluvial, and aeolian deposits. These deposits were transported to the coast during the Quaternary period (which is composed of the Pleistocene and Holocene epochs and dates from about 2 million years B.P. to the present) and were deposited on bedrock of the Mesozoic Era and Tertiary period (dating from about 225 million years B.P. to 2 million years B.P.). These sedimentary bedrock formations are only occasionally exposed on the coast, although they frequently outcrop along the Fall Line (Mathews et al. 1980:2). The crystaline basement rocks are very deeply buried in the Beaufort area, not being reached by test wells dug to a depth of 1640 feet (504 meters). The crystaline rocks were not reached by a Charleston well excavated to a depth of 2050 feet (631 meters) (Smith 1933:21).

The Mesozoic and Tertiary sedimentary bedrock formations, since they contain resources important to both the prehistoric and historic occupants of the Sea Islands, are worthy of further discussion. There are three Upper Cretaceous (Mesozoic era) formations -- the Tuscaloosa formation, composed of sands and clays; the Black Creek formation, composed of both laminated sands and clays and marl (a crumbly deposit of sand or clay which exhibits a substantial quantity of calcium carbonate); and the Pee Dee formation, also composed of sand and marl (Cooke 1936). Upchurch (1984:130-132) notes that while occasional chert pebbles or other silicified stone may be found in these formations, they do not represent significant raw material sources for the prehistoric Indians. Cooke (1936) notes that the Eocene epoch (Tertiary period) formations include the Black Mingo, the Santee Limestones, the Cooper Marls, and the Barnwell sands. Upchurch (1984:132-135) notes that these formations contain indefinite potential to be of use to the prehistoric occupants of South Carolina. Outcrops of these formations do occasionally occur in the central coastal plain (Anderson et al. 1979:10-11) and Anderson et al. (1982) report identifying chert from the Black Mingo Santee Limestone formations. In addition, the Black Mingo formation outcrops along the Black and Santee rivers provide the only known utilized sources for orthoquartzite, a type of chert

and/or chalcedony cemented sandstone (Anderson et al. 1982). Upchurch (1984) notes identical material he calls "Silica-Cemented Sandstone," outcropping from the Flint River or Barnwell formations, although the material was not used in Allendale County (Goodyear and Charles 1984: 116).

The only representative of the Oligocene Epoch in South Carolina, according to Cooke (1936), is the Flint River formation, which is exposed in only a limited area in Allendale County near the Savannah River. This formation produces the bright yellow, vitreous chert known as "Allendale chert" and consequently is perhaps the most significant raw material source in the coastal plain (Goodyear and Charles 1984; Upchurch 1984:135).

Miocene Epoch deposits include the Hawthorn formation, Raysor marl, and the remnants of the Duplin marl. While the Hawthorn formation contains silicified clay and opaline chert, Upchurch notes that "[n]one of the silicified Hawthorn materials . . . are optimal for tool manufacture" (Upchurch 1984:136). While this formation provided few economic resources to the prehistoric Indians, beginning in 1867 the phosphate rock found in the formation provided a significant industry for the lowcountry. The phosphate rock, used as fertilizer, either ground or with the addition of sulfuric acid, was found within a coastal strip about 30 miles (48 kilometers) from the Broad River in Beaufort County to the Cooper River in Berkeley County. Two types were mined -- the "land rock" which was phosphatic marl or limestone that had been enriched and which required excavation, and the "water rock" which consisted of pebbles of land rock deposited in the water courses through erosion. By 1889, 541,645 tons were being mined. Mining effectively ceased in 1920, although some activity was reported as late as 1930 (Cooke 1936:159; Mathews et al. 1980:28).

The final sedimentary bedrock formation is of the Pliocene and consists of the marine shell beds of the Waccamaw formation. No lithic resources are known from this formation (Cooke 1936).

The Pleistocene sediments are organized into topographically distinct, but lithologically similar, terraces parallel to the coast. The terraces have elevations ranging from 215 feet (65.5 meters) down to sea level. These terraces, representing previous sea floors, were apparently formed at high stands of the fluctuating, although falling, Atlantic Ocean and consist chiefly of sand and clay (Cooke 1936; Smith 1933:29). More recently, research by Colquhoun (1969) has refined the theory of formation processes, suggesting a more complex origin involving both erosional and depositional processes operating during marine transgressions and regression.

Cooke (1936) found that most of Hilton Head is part of the Pamlico terrace and formation, with a sea level about 25 feet (7.7 meters) above the present sea level. Portions of the island, in the vicinity of the Fish Haul site, represent a recent terrace, formed during the past 10,000 years. More recently Colquhoun (1969) suggested that Hilton Head is more complex and represents the Princess Anne and Silver Bluff Pleistocene terraces with corresponding sea levels of from 20 to 3 feet (6.2 to 0.9 meters) above the present level.

These recent terraces provide access to a number of clay resources. Cooke (1936:160) noted that clay could frequently be found in the former lagoons behind ancient barrier islands and Colquhoun (1969) demonstrates the presence of an old marsh terrace east of the Coggins Creek area. The Pamlico formation is a prime producer of clay. Cooke comments that "[c]lay predominates in the lower part of the formation, especially in Beaufort County" (Cooke 1936:149). Sloan (1904) notes that a number of Cretaceous and Tertiary formations also evidence significant clay deposits. He also notes that "[a]long the part of the Coastal Plain immediately within the zone of our sand islands and extending inter-mittently over the section ramified with bayous and other short salt water streams there occurs a mantle of red and white stratified clay" (Sloan 1904:89). An examination of the soil survey for Beaufort County (Stuck 1980) reveals six soils, accounting for 143,400 acres, which exhibit a relatively high plasticity index and have clay, sandy clay, or silty clay horizons within 1.1 feet (0.3 meter) of the surface. These soils include Argent, Bladen, Bladen, Bohicket, Capers, Levy, and Wahee. The Bohicket and Capers soils are found in tidal flats, the Argent and Bladen soils are found in depressions and drainageways, the Levy soils are associated with backswamp areas, and the Wahee soils tend to be found on low uplands. While none of this data has been field checked, it suggests that pottery clay, during the prehistoric period, was readily available on the island. Work by Espenshade (1985) at Kings Bay clearly revealed that the aboriginal occupants of that locality were consistently using local clays.

Two additional aspects of Sea Island geology should be briefly discussed. The first is groundwater availability, since water is of primary importance to both prehistoric and historic settlement criteria. As Mathews et al. state, "[g]roundwater may well be the most important material economic resource of the Sea Island Coastal Region" (Mathews et al. 1980:31). The principal deep water artesian aquifer is the limestone of Eocene age known as the Santee Formation. Based on 1880 data this head was so great that wells in the Beaufort County area were free flowing at the surface and on Hilton Head, the head forced water in wells to an elevation of at least 10 feet (3 meters) MSL. By 1971, however, this aquifer was so depleted that no surface flowing

water was known and the head would not force water above mean sea level on Hilton Head Island (Mathews et al. 1980:3132). Today there is also a serious problem of salt water encroachment. Work by Hassen, however, suggests another source of potable water during both the prehistoric and historic periods. He notes, based on a study of the Ladies and St. Helena islands, that:

> ground water in the shallow aquifer occurs under unconfined conditions, allowing rapid rates of recharge by local rainfall. Water levels in these deposits respond frequently to changes in the rates of rainfall, evaporation, and transpiration. . . . water levels in shallow wells ranged from zero to 10 feet below land surface, averaging 3 feet in the study area (Hassen 1985:17).

Chloride contamination of the local island aquifers is most likely at the island margins, while inland even today the water is at or below levels of 250 mg/1 chloride (Hassen 1985:27-29). It is therefore likely that both during the prehistoric and historic periods Hilton Head offered a variety of freshwater sources, including both shallow dug wells and free flowing springs.

The historic documents suggest that both deep and shallow wells were common. Roe, discussing February 1863 events on St. Helena Island, mentions that, "[n]earby is a settlement of contrabands, and it is not long before trouble ensues as to the taking of water from several wells, which apparently, the colored folks have had in use hitherto" (Roe 1907:180). Numerous accounts (e.g. Darvis 1866:186; Denison 1879:22; Palmer 1885:22) mention the digging of shallow wells, but the best account is by Copp,

> [i]n our camp at Hilton Head, every company had its well, by digging through the sand to a depth of from four to six feet [1.2 to 1.8 meters], empty barrels would be inserted, and the well was complete, with plenty of water: although brackish to the taste it was not as bad as we were frequently obliged to use in our later campaigns (Copp 1911: 94).

The second aspect of Sea Island geology to be considered in these discussions is the fluctuation of sea level during the late Pleistocene and Holocene epochs. Prior to 15,000 B.C. there is evidence that a warming trend resulted in the gradual increase in Pleistocene sea levels (DePratter and Howard 1980). Recent work by Colquhoun et al. (1980) clearly indicates that there were a number of fluctuations

during the Holocene. High stands are recorded at about 2050 B.C. (-3.6 feet [1.1 meters] MSL), 1650 B.C. (-1.9 feet [0.6 meter] MSL), 950 B.C. (-2.6 feet [0.8 meter] MSL), and 500 B.C. (-2.3 feet [0.7 meter] MSL). Low stands are ecorded at 1850 B.C. (-10.4 feet [3.2 meters] MSL), 1250 B.C. (-10.1 feet [3.1 meters] MSL), 700 B.C. (-6.5 feet [2.0 meters] MSL), and 300 B.C. (-7.5 feet [2.3 meters] MSL). By A.D. 1650 the Sea level was about 2.6 feet (0.8 meter) lower than present.

These data suggest that as the first Stallings phase sites along the South Carolina coast were occupied about 2100 B.C. the sea level was about 3.9 feet (1.2 meters) lower than present. However, by 1600 B.C., when a number of Thom's Creek shell rings were occupied, the sea level had fallen to a level of about 7.2 feet (2.2 meters) lower than present levels. By the end of the Thom's Creek phase, about 900 B.C., the sea level had risen to a level 2.6 feet (0.8 meter) lower than present, but over 4.5 feet (1.4 meters) higher than when the shell rings were first occupied (Figure 6). Quitmyer (1985b) does not believe that the lower sea levels at 2100 B.C. would have greatly altered the estuarine environment, although drops of 10 feet (3 meters) would have greatly reduced available tidal resources.

Data from the nineteenth and twentieth centuries suggest that the level is continuing to rise. Kurz and Wagner (1957:8) report a 0.8 foot (0.2 meter) rise in Charleston, South Carolina sea levels from 1833 to 1903. Between 1940 and 1950 a sea level rise of 0.34 foot (0.1 meter) was again recorded at Charleston. These data, however, do not distinguish between sea level rise and land surface submergence.

Biophysical Environment

An understanding of the biophysical environment of the Sea Island region is necessary to an adequate appreciation of the resources available to the occupants of the Fish Haul site. It is also necessary, however, to recognize and, where possible to delineate, the changes which have taken place during the Holocene. It is inappropriate to reconstruct settlement and subsistence systems using synchronic data. The review of the biophysical environment surrounding the Fish Haul site will concentrate on the plant and animal communities typical of the region.

Hilton Head Island today exhibits four major ecosystems: the coastal marine ecosystem where land has unobstructed access to ocean, the maritime ecosystem which consists of the upland forest area of the island, the estuarine ecosystem of deep water tidal habitats, and the palustrine ecosystem which consists of essentially fresh water, non-tidal wetlands (Sandifer et al. 1980:7-9).

The coastal marine ecosystem consists of that area from the dunes extending seaward to the level of extreme low spring tide so that there are both intertidal and subtidal components. Salinity consistently exceeds 30 ppt. This ecosystem shelters a number of food resources, such as sea turtles, resident and migrational species of fish, marine and pelagic birds, and several sea mammals, including dolphins, whales, and the manatee. While many of these resources are occasionally found in the archaeological record, there is little indication that the beach strand was a significant ecosystem during the prehistoric period. Even during the nineteenth century this zone provided little to interest the inhabitants of Hilton Head. McKee, in his history of the 144th Regiment, does describe the "capture" of a 200 pound (91 kilogram) turtle which brought $5.00 on the Hilton Head market. He goes on,

> [s]oldiers with hunter instincts learning of this habit of the turtle [laying eggs in the dunes] would get a "leave of absence" for the night and following down the beach would note turtle tracks leading across the beach toward the sand hills and following would find Mrs. Turtle. Laying hold of her shell they would proceed to turn her on her back and then search for others. Sometimes several would be found in the course of the night. In the morning a wagon would be procured and the night's "find" would be gathered up (McKee 1903:166).

While not a "resource" in the conventional sense, there are several insects which have been noted into the nineteenth century as playing a significant role on the coastal beaches. Sandifer et al. note that, "[o]n occasion, hordes of these insects may descend upon the intertidal marine beaches, rendering them essentially unfit for man's recreational use" (Sandifer et al. 1980:87). Clark stated that, "[d]uring the summer, the gnat, the mosquito and the sand flea, are among the soldier's greatest enemies" but "the red sand flies are the worst of all" (Clark 1865:58). Tourtellotte is more descriptive, asserting that "[s]and fleas and mosquitoes [are] fully on par with the 'Plague of Egypt'" (Tourtellotte 1910:41).

Mathews et al. (1980:155) note that the most significant ecosystem on Hilton Head Island is the maritime forest community. This maritime ecosystem is defined most simply as all upland areas located on barrier islands, limited on the ocean side by the extreme high spring tide mark and on the mainland side by tidal marshes. On sea islands the distinction between the maritime forest community and an upland ecosystem (essentially found on the mainland) becomes

blurred. Sandifer (1980:108109) defines four subsystems, including the sand spits and bars, dunes, transition shrub, and maritime forest. Of these, only the maritime forest subsystem is likely to have been significant to either the prehistoric or historic occupants and only it will be further discussed. While this subsystem is frequently characterized by the dominance of live oak and the presence of salt spray, these are less noticeable on the sea islands than they are on the narrower barrier islands (Sandifer et al. 1980:120).

The barrier islands may contain communities of oak-pine, oak-palmetto-pine, oak-magnolia, palmetto, or low oak woods. The sea islands, being more mesic or xeric, tend to evidence old field communities, pine-mixed hardwood communities, pine forest communities, or mixed hardwood communities (Sandifer et al. 1980:120-121, 437). In the vicinity of Coggins Creek there is considerable evidence of late nineteenth and early twentieth century disturbance, primarily through agriculture, so there are abundant successional communities. The logging and clearing for agriculture has resulted in the creation and maintenance of a pine dominated forest in many areas. The Fish Haul site itself may be divided into two general vegetative areas. The northern and central areas consist of young, successional (subclimax) hammock growth developing out of "scrubby flatwoods" (Figure 7). Such communities are apparently common in transition fire-protected areas and are characterized by broadleaf deciduous or evergreen trees, depending on local soil conditions (Bozeman 1965; Sandifer et al. 1980:448-450). Major constituents include live oak (Quercus virginiana) and water oak (Quercus nigra), although bay (Magnolia spp.), cherry (Prunus caroliniana), pine (Pinus spp.), American holly (Ilex opaca), and saw palmetto (Serenoa repens) are also found. Adjacent to the marsh is found palmetto (Sabal spp.) and yaupon holly (Ilex vomitoria). The central area (see Figure 1) is unnaturally open because of clearing operations over the past four years which removed understory vegetation in preparation for development. This successional sequence has been on-going since at least the 1930s (based on aerial photographs) and perhaps since the late nineteenth century, and given time the area will develop a live oak-mixed hardwood climax community. The forest is composed of similar oaks, with the noticeable addition of hickories, particularly pignut hickory (Carya glabra) (Sandifer et al. 1980:450). At the south end of the tract is an open old field community which has only within the past 20 years gone out of cultivation. This area is still characterized by broom straw (Andropogon spp.), although some pine seedlings (primarily Pinus palustris) are obvious.

Nearby areas of Hilton Head evidence upland mesic hardwoods, also known as "oak-hickory forests" (Braun 1950). These forests contain significant quantities of mockernut hickory (Carya tomentosa) as well as pignut hickory, both

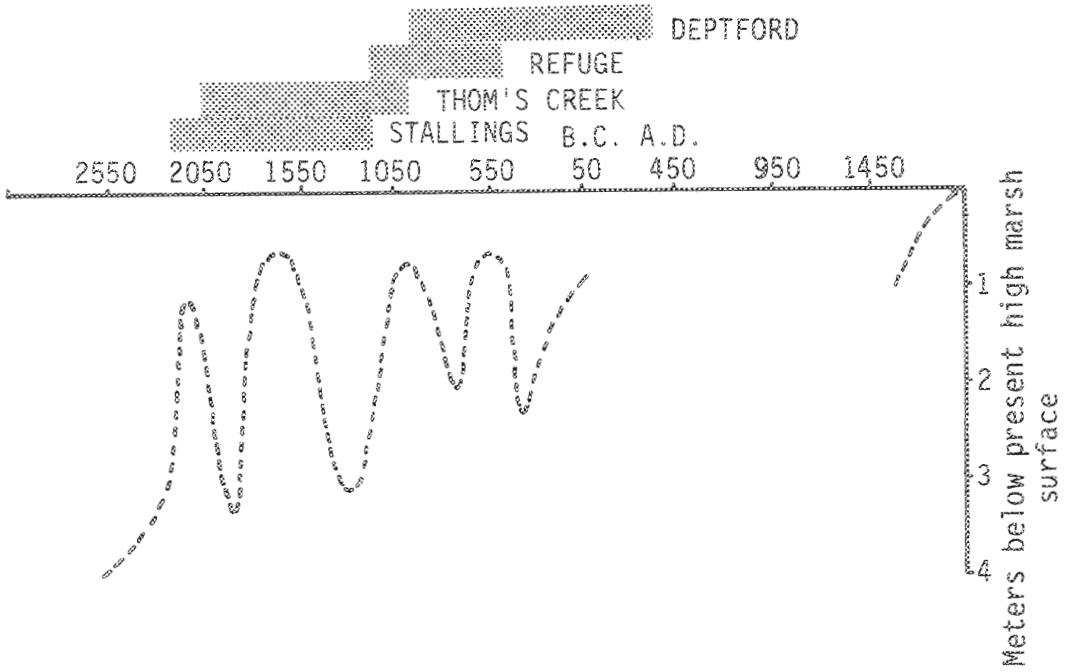

Figure 6. Sea level curve and cultural periods (adapted from Colquhoun et al. 1980:Figure 1).

Figure 7. Subsurface tests in an area of dense hammock growth.

economically significant to the aboriginal inhabitants. Other areas are more likely to be classified as Braun's (1950:284-289) pine or pineoak forest communities. Wenger (1968) notes that the presence of loblolly and shortleaf pines is common on coastal plain sites where they are a significant sub-climax aspect of the plant succession toward a hardwood climax. Longleaf pine forests were likewise a common sight (Croker 1979) and Brown (1950:285286) notes that they are very adaptable.

Mills, discussing Beaufort District in the early nineteenth century, states,

> [b]esides a fine growth of pine, we have the cypress, red cedar, and live oak . . . white oak, red oak, and several other oaks, hickory, plum, palmetto, magnolia, poplar, beech, birch, ash, dogwood, black mulberry, etc. Of fruit trees we have the orange, sweet and sour, peach, nectarine, fig, cherry (Mills 1826:377).

He also cautions, however, "[s]ome parts of the district are beginning already to experience a want of timber, even for common purposes" (Mills 1826:383) and suggests that at least 25% of a plantation's acreage should be reserved for woods.

A mid-nineteenth century map, while showing the Fish Haul tract cultivated, shows nearby areas as "Swamp Ground," "Thick Wood Pine Tree and Live Oak," " Pines, Live Oaks and a few other kind," and "Very Thick Woods" (National Archives RG77, Map I52), giving a clear impression of the diversity caused by over a century of intensive agriculture. The "Swamp Ground" forest is clearly indicative of the bottomland forests to be discussed with the palustrine ecosystem. Other trees mentioned on the map show the mingling of needle evergreen and broadleaf evergreen species. Pine was apparently a common species. A description of the island, based on a visit from March through May 1863, states,

> [t]he characteristic trees are the live oak . . . . Besıdes these, are the pine, the red and white oak, the cedar, the bay, the gum, the maple, and the ash. The soil is luxuriant with an undergrowth of impenetrable vines (Anonymous 1863:294-295).

A letter written from Hilton Head Island in November 1861 describes the vıew as seen by a northern soldier,

> [h]ere we are, surrounded by cotton, sweet potatoes, corn, beans, mules, oranges,

> palmetto trees, Southern pines, niggers, palm and peanuts, with here and there a live oak .. . . the island is one great pine plain, interrupted only by an occasional swampy run (quoted in Eldridge 1893:69).

These accounts would seem to suggest that the vegetation on Hilton Head was already intensively affected by intensive farming and logging as early as the nineteenth century.

The pollen record is somewhat useful for the prehistoric period. Wright states that,

> [t]he transformation to temperate deciduous forest similar to that of today occurred rapidly through a series of successional stages and in most of the area it was essentially completed by 9,000 years ago, with relatively minor changes since then in the proportion of the principal forest components (Wright n.d.:23).

Watts (1979:n.p.) would characterize the vegetation and climate after 7600 B.C. as being "rather similar to the present," and "essentially like the present" after 4000 B.C. One significant aspect of these palynological studies is that hickory is consistently a minor species, representing 5% or less of the recovered fossil pollen. Even today the two most common hickories - mockernut and pignut -- are not very common. Fowells (1965:116) states that mockernut hickory can grow on sandy soil with pines and live oak, but is best suited to moist, bottomland hardwood forests, while the pignut hickory is only a minor component in a limited number of forests (Fowells 1965:125). The relatively abundant bitternut hickory (Carya cordiformis) is likewise found on the richer, overflow bottoms of the coastal plains (Fowells 1965:112).

The presence and diversity of hickories is significant because of their suspected contribution to prehistoric diets. The occurrence of hickory nutshell at Stallings-Thom's Creek sites has been previously noted (Trinkley 1976) as, more recently, have Harris and Sheldon (1982). Although acorn shell is frequently less common (on a weight basis), it is lighter in weight than the hickory nutshell and acorn shell represents more food for its weight than does hickory nutshell. The food value of hickory and acorn compliment each other and they offer a good nutritional combination. Hickory nuts are high in protein and fat, but low in carbohydrates. The acorn, in contrast, is high in carbohydrates, but offers little protein or fat (Asch and Ford 1971). Hickory nuts have a caloric value equal to that of most meat (Hutchinson 1928:261).

The dependability of the various nut sources varies considerably. Hickory nuts are fairly dependable with masts occurring every two to three years and are available from September through December. Acorn crops are less dependable and the trees will not develop good masts until they are at least 20 years old. Masts frequently occur every 4 to 10 years with relatively barren periods in between. Acorns ripen in September and fall by December (Fowells 1965).

There are a number of terrestrial species found in the upland hardwood hammocks and Quitmyer states that "if the density and diversity of terrestrial animals occurring in the hardwood forests are compared to all other terrestrial habitats, values would be higher for the hardwood forest" (Quitmyer 1985b:15). Significant species include the deer (Odocoileus virginianus), opossum (Didelphis virginiana), racoon (Procyon lotor), gray squirrel (Sciurus carolinensis), and rabbit (Sylvilagus spp.).

Deer are among the largest terrestrial mammals found in the Sea Island area and are considered ubiquitous (Shelford 1963:28). Golly (1962:199) reports the average biomass of male Georgia deer to be 103 pounds (46.7 kilograms) to 120 pounds (54.4 kilograms), with about 75% of the weight being edible although the coastal deer are consistently smaller. Breeding season is variable, but may extend from late August through January with a peak in November. Fawning normally extends from March through July (Moore 1978:7). Antlers are present, primarily on the male, from September through February and the shedding begins in January and continues through March. Few shed antlers can be recovered from the forest floor because they are actively sought by rodents (Moore 1978:8). Density is usually less than 15 animals per square mile (6 per square kilometer) (Golly 1962), and the deer are generally solitary animals. Quitmyer (1985b:18) suggests that the deer may have been most available in the fall as they congregate to exploit the acorn masts. Their daily cycle has them most active in the early morning and early evening.

The opossum ranges from about 1 to 8 pounds (0.5 to 3.7 kilograms) (Golly 1962:35) and Quitmyer (1985b:17) suggests that 60% of the animal is edible. Although the animal is extremely adaptable, its preferred habitat is along the bottomland streams of mixed hardwoods not found on Hilton Head Island. The opossum is nocturnal and solitary except during the breeding seasons of January-March and April-June (Golly 1962:35). Density may range from up to 220 per square mile (85 per square kilometer) (Golley 1966).

The raccoon may weigh from 20 to 40 pounds (9 to 18 kilograms) (Larson 1969) and denisities may be as high as 200 per square mile (77 per square kilometer), although 65 per

square mile (25 per square kilometer) is more probable (Golley 1966). They tend to be nocturnal and to be found on forest edges (Larson 1969).

The gray squirrel is the most common species encountered in the coastal area and was the most common mammal reported taken by hunters during a 1965 postal survey. The gray squirrel ranges from 0.8 to 1.4 pounds (0.4 and 0.6 kilogram) in weight and up to 65% of the weight represents useable meat (Quitmyer 1985b:17). The habitat of the gray squirrel is largely limited to the hardwood forests, where it utilizes the nut masts. Golly (1962) reports that activity is heaviest at twilight.

Two species of rabbits are common to the Sea Island Region -- the cottontail (Sylvilagus floridanus) and the marsh rabbit (S. palustris). Their inclusive weight range is about 1.2 to 3.9 pounds (0.6 to 1.8 kilograms) with 65% of the weight composed of edible meat. The two species are found in mutually exclusive habitats, with the cottontail found in high grass or wooded upland thickets while the marsh rabbit prefers wetland habitats. Golley (1966) estimates on upper range of 1280 rabbits per square mile (494 per square kilometer). Both are nocturnal animals.

Avifauna is abundant in the terrestrial upland ecosystem, but is largely composed of Passeriformes. Significant species include the Carolina wren (Thryothorus ludoviclanus), mockingbird (Minus polyglottos), and mourning dove (Zenaida macroura). (Sandifer et al. 1980:460). A number of avian predators are also found, including owls and hawks. There are few that might represent an economic resource.

There are few species of terrestrial turtles found in coastal South Carolina. Eastern box turtles (Terrapene carolina carolina) may be occasionally found and are primarily hardwood forest inhabitants. Gopher tortoises (Gopherus polyphencus) are found in areas of sand pine barrens where they aggregate in loose colonies. In addition, there are a number of transient fresh water species (discussed below) which may be occasionally found in the uplands (Sandifer et al. 1980:457). A number of snakes are also found in the uplands. Clark writes,

> [s]nakes of many varieties are to be found on Hilton Head. Some of them are of the most poisonous and deadly species. Among the number may be mentioned the moccasin, Copperhead, Rattle, Adder, Black, &c., &c.,. . . Seeing that the negroes were so much afraid of them [water moccasins], the soldiers were very careful when traveling through the swamps. A snake called the Wood

> Rattle abounded at Braddock's Point, and the soldiers made great slaughter among them . . . . Long, slender snakes, as green as grass, and some as red as blood, were seen on the roofs of the houses (Clark 1865:57-58).

The estuarine ecoystem in the Hilton Head vicinity include those areas of deep-water tidal habits and adjacent tidal wetlands ranging from Coggin Creek and its marsh to Port Royal Sound. Salinity may range from 0.5 ppt at the head of the estuary to 30 ppt where it comes in contact with the ocean. Estuarine systems are influenced by ocean tides, precipitation, fresh water runoff from the upland areas, evaporation, and wind. The tidal range for Hilton Head is 6.6 to 7.8 feet (2.0 to 2.4 meters), indicative of the areas being swept by moderately strong tidal currents. The system may be subdivided into two major components: subtidal and intertidal (Sandifer et al. 1980:158159). Thompson notes that the "estuarine ecosystem represents one of nature's most productive biomes" (Thompson 1972:9) because it represents a mixing of both fresh and sea water to produce a "nutrient trap." The nutrients are capable of supporting a wide variety of life forms. A study conducted in the Port Royal Sound identified 107 different species of fish and 18 species of macro-invertebrates using the estuary (Thompson 1972:13).

Vascular flora within the estuarine system is primarily limited to the intertidal area, where it may be further classified into two zones according to elevation. The low marsh consists entirely of a smooth cordgrass (Spartina alterniflora) community that varies from tall to short as one moves inland (toward the high marsh) away from the creekbank. The irregularly flooded high marsh contains a transition zone of Spartina, followed at a slightly higher elevation by "minox marsh" characterized by very short Spartina and an abundance of fiddler crabs (Uca minox). At a slightly higher elevation is a glasswort and salt grass (Salicornia-Distichlis) community. This zone may be unvegetated salt flats. At the highest elevations and adjacent to the upland vegetation is the black needlerush (Juncus) marsh (Sandifer et al. 1980: 212-213). This upland vegetation, adjacent to the marsh, is usually dominated by species which exhibit salt tolerance, such as wax myrtle (Myrica cerifera), Southern red cedar (Juniperus silicicola), and yaupon (Ilex vomitoria).

Mammal species, such as the raccoon, are usually only visitors to the marsh edge as the stress of salt water fluctuation, reduced numbers of plant species, and the open exposure are unfavorable (Quitmyer 1985b:16). The river otter (Lutra canadensis) is found feeding in the estuarine waters and is fairly common in South Carolina. Breeding occurs in the late fall or winter and the litter is born in

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Watts (1979:n.p.) would characterize the vegetation and climate after 7600 B.C. as being "rather similar to the present," and "essentially like the present" after 4000 B.C. One significant aspect of these palynological studies is that hickory is consistently a minor species, representing 5% or less of the recovered fossil pollen. Even today the two most common hickories - mockernut and pignut -- are not very common. Fowells (1965:116) states that mockernut hickory can grow on sandy soil with pines and live oak, but is best suited to moist, bottomland hardwood forests, while the pignut hickory is only a minor component in a limited number of forests (Fowells 1965:125). The relatively abundant bitternut hickory (Carya cordiformis) is likewise found on the richer, overflow bottoms of the coastal plains (Fowells 1965:112).

The presence and diversity of hickories is significant because of their suspected contribution to prehistoric diets. The occurrence of hickory nutshell at Stallings-Thom's Creek sites has been previously noted (Trinkley 1976) as, more recently, have Harris and Sheldon (1982). Although acorn shell is frequently less common (on a weight basis), it is lighter in weight than the hickory nutshell and acorn shell represents more food for its weight than does hickory nutshell. The food value of hickory and acorn compliment each other and they offer a good nutritional combination. Hickory nuts are high in protein and fat, but low in carbohydrates. The acorn, in contrast, is high in carbohydrates, but offers little protein or fat (Asch and Ford 1971). Hickory nuts have a caloric value equal to that of most meat (Hutchinson 1928:261).

The dependability of the various nut sources varies considerably. Hickory nuts are fairly dependable with masts occurring every two to three years and are available from September through December. Acorn crops are less dependable and the trees will not develop good masts until they are at least 20 years old. Masts frequently occur every 4 to 10 years with relatively barren periods in between. Acorns ripen in September and fall by December (Fowells 1965).

There are a number of terrestrial species found in the upland hardwood hammocks and Quitmyer states that "if the density and diversity of terrestrial animals occurring in the hardwood forests are compared to all other terrestrial habitats, values would be higher for the hardwood forest" (Quitmyer 1985b:15). Significant species include the deer (Odocoileus virginianus), opossum (Didelphis virginiana), racoon (Procyon lotor), gray squirrel (Sciurus carolinensis), and rabbit (Sylvilagus spp.).

Deer are among the largest terrestrial mammals found in the Sea Island area and are considered ubiquitous (Shelford 1963:28). Golly (1962:199) reports the average biomass of male Georgia deer to be 103 pounds (46.7 kilograms) to 120 pounds (54.4 kilograms), with about 75% of the weight being edible although the coastal deer are consistently smaller. Breeding season is variable, but may extend from late August through January with a peak in November. Fawning normally extends from March through July (Moore 1978:7). Antlers are present, primarily on the male, from September through February and the shedding begins in January and continues through March. Few shed antlers can be recovered from the forest floor because they are actively sought by rodents (Moore 1978:8). Density is usually less than 15 animals per square mile (6 per square kilometer) (Golly 1962), and the deer are generally solitary animals. Quitmyer (1985b:18) suggests that the deer may have been most available in the fall as they congregate to exploit the acorn masts. Their daily cycle has them most active in the early morning and early evening.

The opossum ranges from about 1 to 8 pounds (0.5 to 3.7 kilograms) (Golly 1962:35) and Quitmyer (1985b:17) suggests that 60% of the animal is edible. Although the animal is extremely adaptable, its preferred habitat is along the bottomland streams of mixed hardwoods not found on Hilton Head Island. The opossum is nocturnal and solitary except during the breeding seasons of January-March and April-June (Golly 1962:35). Density may range from up to 220 per square mile (85 per square kilometer) (Golley 1966).

The raccoon may weigh from 20 to 40 pounds (9 to 18 kilograms) (Larson 1969) and denisities may be as high as 200 per square mile (77 per square kilometer), although 65 per

square mile (25 per square kilometer) is more probable (Golley 1966). They tend to be nocturnal and to be found on forest edges (Larson 1969).

The gray squirrel is the most common species encountered in the coastal area and was the most common mammal reported taken by hunters during a 1965 postal survey. The gray squirrel ranges from 0.8 to 1.4 pounds (0.4 and 0.6 kilogram) in weight and up to 65% of the weight represents useable meat (Quitmyer 1985b:17). The habitat of the gray squirrel is largely limited to the hardwood forests, where it utilizes the nut masts. Golly (1962) reports that activity is heaviest at twilight.

Two species of rabbits are common to the Sea Island Region -- the cottontail (Sylvilagus floridanus) and the marsh rabbit (S. palustris). Their inclusive weight range is about 1.2 to 3.9 pounds (0.6 to 1.8 kilograms) with 65% of the weight composed of edible meat. The two species are found in mutually exclusive habitats, with the cottontail found in high grass or wooded upland thickets while the marsh rabbit prefers wetland habitats. Golley (1966) estimates on upper range of 1280 rabbits per square mile (494 per square kilometer). Both are nocturnal animals.

Avifauna is abundant in the terrestrial upland ecosystem, but is largely composed of Passeriformes. Significant species include the Carolina wren (Thryothorus ludoviclanus), mockingbird (Minus polyglottos), and mourning dove (Zenaida macroura). (Sandifer et al. 1980:460). A number of avian predators are also found, including owls and hawks. There are few that might represent an economic resource.

There are few species of terrestrial turtles found in coastal South Carolina. Eastern box turtles (Terrapene carolina carolina) may be occasionally found and are primarily hardwood forest inhabitants. Gopher tortoises (Gopherus polyphencus) are found in areas of sand pine barrens where they aggregate in loose colonies. In addition, there are a number of transient fresh water species (discussed below) which may be occasionally found in the uplands (Sandifer et al. 1980:457). A number of snakes are also found in the uplands. Clark writes,

> [s]nakes of many varieties are to be found on Hilton Head. Some of them are of the most poisonous and deadly species. Among the number may be mentioned the moccasin, Copperhead, Rattle, Adder, Black, &c., &c.,. . . Seeing that the negroes were so much afraid of them [water moccasins], the soldiers were very careful when traveling through the swamps. A snake called the Wood

> Rattle abounded at Braddock's Point, and the soldiers made great slaughter among them . . . . Long, slender snakes, as green as grass, and some as red as blood, were seen on the roofs of the houses (Clark 1865:57-58).

The estuarine ecoystem in the Hilton Head vicinity include those areas of deep-water tidal habits and adjacent tidal wetlands ranging from Coggin Creek and its marsh to Port Royal Sound. Salinity may range from 0.5 ppt at the head of the estuary to 30 ppt where it comes in contact with the ocean. Estuarine systems are influenced by ocean tides, precipitation, fresh water runoff from the upland areas, evaporation, and wind. The tidal range for Hilton Head is 6.6 to 7.8 feet (2.0 to 2.4 meters), indicative of the areas being swept by moderately strong tidal currents. The system may be subdivided into two major components: subtidal and intertidal (Sandifer et al. 1980:158159). Thompson notes that the "estuarine ecosystem represents one of nature's most productive biomes" (Thompson 1972:9) because it represents a mixing of both fresh and sea water to produce a "nutrient trap." The nutrients are capable of supporting a wide variety of life forms. A study conducted in the Port Royal Sound identified 107 different species of fish and 18 species of macro-invertebrates using the estuary (Thompson 1972:13).

Vascular flora within the estuarine system is primarily limited to the intertidal area, where it may be further classified into two zones according to elevation. The low marsh consists entirely of a smooth cordgrass (Spartina alterniflora) community that varies from tall to short as one moves inland (toward the high marsh) away from the creekbank. The irregularly flooded high marsh contains a transition zone of Spartina, followed at a slightly higher elevation by "minox marsh" characterized by very short Spartina and an abundance of fiddler crabs (Uca minox). At a slightly higher elevation is a glasswort and salt grass (Salicornia-Distichlis) community. This zone may be unvegetated salt flats. At the highest elevations and adjacent to the upland vegetation is the black needlerush (Juncus) marsh (Sandifer et al. 1980: 212-213). This upland vegetation, adjacent to the marsh, is usually dominated by species which exhibit salt tolerance, such as wax myrtle (Myrica cerifera), Southern red cedar (Juniperus silicicola), and yaupon (Ilex vomitoria).

Mammal species, such as the raccoon, are usually only visitors to the marsh edge as the stress of salt water fluctuation, reduced numbers of plant species, and the open exposure are unfavorable (Quitmyer 1985b:16). The river otter (Lutra canadensis) is found feeding in the estuarine waters and is fairly common in South Carolina. Breeding occurs in the late fall or winter and the litter is born in

April. The otter is especially valued for its fur, which is the standard by which all other furs are measured as to texture and durability (Sandifer et al. 1980:206). Marsh rabbits are found at the marsh edge and have been previously discussed. Likewise, the deer may be found on hard tidal marsh flats grazing on the various grasses. The only reptiles frequently found in the estuarine area are the Carolina diamondback terrapin (Malaclemys terrapin centrata) and the American alligator (Alligator mississippiensis). The diamondback terrapin is found near shell bottoms and oyster bars where it seeks out its preferred foods (Sandifer et al. 1980:202). It is a diuernal animal and maximum yields may be obtained during their breeding season of May and early June (Quitmyer 1985b:20). The average dressed weight for the terrapin is 1.1 pounds (0.5 kilogram) (Trinkley 1980c:140). The diamond back terrapin was a gourmet item in the late nineteenth and early twentieth centuries, but the market collapsed after World War I. Quitmyer notes that the use of the terrapin, however, predates the late nineteenth century, observing that "[d]uring the plantation period, the animal was so abundant that slaves even went on strike to have it reduced from the food provided them" (Quitmyer 1985b:20). Alligators are observed moving between islands and in tidal creeks, although they seem to be more common in brackish water (Sandifer et al. 1980:252).

The tidal marsh provides a unique habitat for birds, who use the vegetation for food, roosting, and nesting. Although about 70 species use the estuarine wetlands, only 27 are considered dominant by Sandifer et al. (1980:Table 4-33). These include various herons, egrets, rails, gulls, terns and the ibis. In addition, a number of waterfowl may be found in the estuarine area.

Previous archaeological studies have identified few species of marsh birds and those recovered have been found in so few numbers that they suggest little more than an opportunistic catch. Of the four genera identified, only two, the wood ibis (Mycteria americana) and the clapper rail (Rallus longirostris), have been taken to the species level (Trinkley 1980b:109). Although the wood ibis, while nesting in rookeries, is a permanent resident of the coast, it is most common in the mid to late summer months. Baird et al. (1967:83) note that the wood ibis is a solitary bird, perhaps accounting for its apparently low frequency in coastal sites. The clapper rail is an abundant permanent resident, but is more abundant in the winter because of a large influx of northern birds. The clapper rail, more frequently called the "marsh hen," nests in the marsh grass, and is easily flushed. The bird is slow in flight, and probably would have been easily hunted by the Indians (Baird et al. 1974:362).

Seven species of ducks (Anas spp.) are commonly found in the South Carolina coastal area. All are common winter

residents and are found from September through May. The average dressed wieght of a duck is 0.5 pounds (1.0 kilogram) (Trinkley 1980c:140). The herons and egrets are permanent residents, but are less common in the winter (Sprunt 1970).

In discussing the fish resources of the estuarine ecosystem, it is important to recognize that the intertidal zone consists of mud flats interspersed with intertidal oyster reefs as well as shallow tidal creeks. In these areas the movement of various species of fish depends largely upon the tidal stage, with the small species being flushed out of areas as the tide falls. Species found in the subtidal habitat are more dependent on the salinity and the waters' bottom characteristics.

Thirteen species of fish make up those found most commonly in South Carolina waters. They include silversides (Menidia spp.), bay anchovy (Anchoa mitchilli), mummichog (Fundulus heteroclitus), mullet (Mugil spp.), Atlantic menhaden (Brevoortia tyrannus), spot (Leiostomus xanthurus), silver perch (Bairdiella chrysura), Atlantic croaker (Micropogonias undulatus), weakfish (Cynoscion ragalis), sea catfish (Arius felis), white catfish (Ictalurus catus), flounder (Paralichthys spp.), and star drum (Stellifer lanceolotus). Additional information on these fish is provided by Table 1.

Many of the fish (such as flounder, drum, and catfish) represent larger predators which are not common in the intertidal creeks, but rather at their mouths, feeding on the smaller fish, such as the mummichog, spot, silversides, and bay anchovy, which follow the flow of the tide (Cain 1973). A few of the species, such as silversides, bay anchovy, and mummichog are small fish which commonly travel in schools, migrating in and out of the intertidal creeks with the tide (Cain 1973:76-77).

These fish suggest that at least two different methods of procurement are required. The small fish, occupying a shallow intertidal creek habitat, and tending to occur in aggregations, are most easily procured with nets or seines. The larger, predatory species found at the mouths of the smaller tidal creeks may be obtained as individuals, either by hook and line or by gigging.

Fish are not especially good seasonal indicators although, as Table 1 indicates, many have a range of months during which they are most common in the marsh or riverine environment. The bulk of the species are available in the summer months, with fewer species available in the fall and winter. The best fishing season appears to be May through September, when the greatest variety and the largest numbers of fish are found, although fish are available throughout the year.

	Habitat	Found As	How Obtained	Season	Average Collected Wt. (Pounds/grams)
Silversides	Shallows	large schools	fine nets, weirs	resident	0.001-0.1 0.4-37.0
Bay anchovy	Shallows, brackish water	large schools	fine nets, weirs	resident	0.002-0.01 0.8-3.7
Mummichog	Shallows	loose schools	fine nets, weirs	resident	0.001-0.01 0.4-3.7
Mullets	Shallows, brackish water		gill, cast nets	spring	0.04-0.2 14.9-74.6
Silver Perch	Bottom feeder, lower tidal creeks		hook	summer	0.01-0.3 3.7-111.9
Spot	bottom feeder, lower tidal creeks	small schools	nets, hook	spring-summer	0.04-0.3 14.9-111.9
Star Drum	lower-middle reaches			summer	
Atlantic Menhaden	high marsh, tidal creeks	large schools	nets, weirs	summer	0.003-2.0 1.1-746
Atlantic Croaker	bottom feeder, tidal creeks		hook	summer	0.005-0.3 9.2-111.9
Weakfish	shallows	schools	nets, hook	summer-fall	0.01 3.7
Flounder	bottom feeder, shallows, bays		nets, gigging	summer-fall	0.2-3.0 74.6-1119.0
White Catfish	upper reaches		hook, nets	winter	0.03-9.07 11.2-26.1
Sea Catfish	high salinity sounds		hook	spring-summer	2.0-3.0 746.0-1119.0

Sources: Freeman and Walford 1976; McClane 1965; Sandifer et al. 1980

Table 1. Common South Carolina estuarine fish.

The amount of edible flesh on fish is estimated to be as high as 50 to 60% of the total weight of some species and as low as 30% on others, although 50% is probably a reasonable average (Borgstrom 1962; Hutchinson 1928:81).

Tourtellotte comments that in August of 1862, "fresh fish in plenty . . . could be purchased in abundance from the floating horde of contrabands" (Tourtellotte 1910:41). This source also puzzles over the blacks' habit of fishing at night, commenting that, "[m]any in the rank and file felt sure the coffee colored contraband who felt obliged to do his fishing at night was none too loyal" (Tourtellotte 1910:43). Joyner, however, quotes Waccamaw Neck planter J. Motte Alston who reported that slaves,

> would usually go to the seashore and lay in a supply of fish and clams. Large numbers of mullet were caught at night in cast nets, and sacks full brought home (Joyner 1984:130).

A rich macroinvertebrate community is found on the sheltered intertidal flats of the estuarine area. These communities are reported to be influenced by gradients and/or fluxes in salinity, temperature, tidal influence, and substrate type (Sandifer et al. 1980:176-177, 263). Significant species include the American oyster (Crassostrea virginica), hard shell clam (Mercenaria mercenaria), ribbed mussel (Geukensia [Modiolus] demissus), stout tagelus (Tagelus plebeius), periwinkle (Littorina irrorata) knobbed whelk (Busycon carica), and blue crab (Callinectes sapidus). Another significant invertebrate is shrimp (Penaeus sp.), a seasonal resource found in the high marsh and tidal creeks.

The oyster is adapted to waters having considerable variation of salinity and temperature, although reproductive functions are affected by extremes. The optimum salinity range is 10 to 28 ppt. A suitable substrate is critical and oyster shells or other hard materials are the most common material. Approximately 95% of the oyster standing crop in South Carolina are intertidal (Lunz 1952) and are found as oyster clumps, formed by successive yearly sets of "spat" on older oyster. These oyster beds provide habitat for a variety of other invertebrates, such as crabs, ribbed mussels, and barnacles. Vernberg and Sansbury (1972:275) note that oysters are the most common pelecypod mollusk in the Port Royal area and that oyster beds in the Beaufort area produce approximately 0.25 bushel (200 oysters) per square yard (240 oysters per square meter).

The clam, because of heavy predation, tends to be most common in areas which have an abundance of shell in the substrate such as along the bases of intertidal oyster beds

and interspersed with intertidal oysters. They also tend to be found in the protected tidal creeks rather than in the bays or sounds. Quitmyer (1985) reports a salinity range as low as 13 ppt, but an optimum salinity of about 27 ppt. Sandifer et al. (1980:180) report a clam density of about 83 clams per square yard (100 per square meter) in shelly substrate compared to about 0.2 clam per square yard (0.25 per square meter) in sandy bottom areas.

Ribbed mussels are found in localized colonies on hard mud flats, while the stout tagelus also is found in small localized colonies in the intertidal zone. The ribbed mussels are found in groups of up to six individuals per square yard (eight per square meter) (Vernberg and Sansbury 1972). Chester DePratter (personal communication 1986), however, has noted clusters of 20 to 30 individuals aroung the root systems of Spartina. Both species prefer salinity levels above 8-10 ppt, although they can exist in levels much lower. Castagna and Chanley (1973) report survival of ribbed mussel in water with salinity as low as 5 ppt and stout tagelus as low as 2.5 ppt. The marsh periwinkle is found on Spartina in the high marsh.

While four species of whelks are found in the South Carolina-Georgia area, the knobbed whelk is most common in the archaeological record. All are predators of the oyster and may be found localized on oyster beds. Otherwise the whelk will be found in shallow water on sandy bottoms. Up to 50% of the total weight of the whelk is edible meat, a much higher return than the other mollusks (Borgstrom 1962). Eversole and Anderson (n.d.) note that removing the meat from the shell is a tedious chore, done either fresh or after boiling the whelk for several minutes. If done fresh, a hole must be made between the third and fourth whorls of the shell's spire. A sharp instrument is then used to cut the columellar muscle which runs along the central axis of the shell.

Because whelks are mobile, they are indicative of seasonality in their availability (Magalhaes 1948). The knobbed whelk is most active in the tidal marshes from June through July and is generally absent during the winter months. The number of available juveniles peak from June through August. While the juveniles are most active during the day, the mature individuals are most abundant at night.

Crabs are found on mud, shell, and sand bottoms in salt and brackish waters. They are especially abundant in estuaries and the mouths of tidal creeks around sea grass. They are active in water warmer than 50°F (10°C), but seek deep water during the winter. Most are taken from March through November (Freeman and Walford 1976). Turner and Johnson (1972:182) report that blue crab made up most of

the invertebrate biomass during their study of tidal streams in the Port Royal area. They accounted for 4.8 pounds (1.8 kilograms) per acre or, numerically, 26 per acre.

Three species of shrimp are found in South Carolina tidal creeks -- white, brown, and pink. Shrimping may be conducted along beaches, river banks, and in tidal creeks. They may be taken during daylight and at night and are usually most abundant at an out-going tide just after high water. During most years the white shrimp, which is found in less saline waters, is most common and is caught primarily during the spring (May and June) and fall (September through December)(Moore et al. 1980:16). About 257 white shrimp per acre (0.7 pound or 0.3 kilogram) are considered a standing crop in the Port Royal area during July (Turner and Johnson 1972:183).

The shellfish, crabs and shrimp were rarely mentioned in the accounts of the nineteenth century, although Eliza Summers, in an April 1867 letter from Hilton Head states that,

> [w]e are not going to eat any more oysters after this month. We are eating fresh fish and crabs every day, and the people bring us spwrans [shrimp] which are very nice. They are about as long as your finger, are red like a lobster and taste very much like one" (Martin 1977:68).

Reese notes that oysters, "[l]ike all fish, . . . are out of season at spawning time; and hence the origin of the old saying 'an oyster is never good except when there is an R in the month'" (Reese 1847:453). He also notes that the whelk is "of little importance as general food, though eaten by the poorer classes, and sufficiently wholesome" (Reese 1847:453).

The last environment to be briefly discussed is the freshwater palustrine ecosystem. The subsystem includes all wetland systems, such as swamps, bays, savannahs, pocusins, and creeks, where the salinities measure less than 0.5 ppt. The palustrine ecosystem is diverse, although not well studied (Sandifer et al. 1980:295).

The vascular flora ranges from the wild rice (Zizania aquatica), arrow-arum (Peltandra virginica), and giant cutgrass (Zizaniopsis milacea) of tidal wetlands to the bottomland hardwood forests of the tidal and nontidal forested wetlands. The nontidal forested wetlands evidence the greatest physiographic and species diversity. Table 2 lists the most common vegetation types found on Hilton Head and their occurrence. Several of these forest types offer useful resources to prehistoric groups. The bottomland

	Pine Savannah	Pond Cypress	Swamp Tupelo	Pond Cypress-Swamp Tupelo	Evergreen Shrub	Bay Forest	Bottomland Hardwoods	Bald Cypress-Water Tupelo
Poorly drained interstream flats	x	x	x	x	x	x		
Depressions, ponds		x	x	x	x	x		
Carolina Bays		x	x	x	x	x		
Ridge and Bay Topography			x	x	x	x		
Flood Plains			x	x			x	x

Table 2. Vegetative types and associated physiography (adapted from Sandifer et al. 1980:328).

hardwoods in particular, would have been attractive because of their numerous oaks and hickories (Sandifer et al. 1980).

Several species of turtles exhibit relatively generalized requirements for freshwater aquatic habitats, such as the common snapping turtles (Chelydra serpentina serpentina), eastern mud turtle (Farancia abacura abacura), and the stinkpot (Sternotherus odoratus), all of which are nocturnal. Other turtles include Florida cooters (Chrysemys floridana floridana), yellow belly sliders (Chrysemys scripta scripta), and eastern chicken turtles (Deirochelys reticularia recticularia).

The palestrine ecosystem is also used by a number of wading birds, including egrets, herons, and the white ibis, as rookery sites. The nonforested wetlands also offer diversity in food resources which are attractive to a number of species. Sandifer et al. (1980:370) note that about 78 species of birds occur in this habitat alone, although only 22 may be considered dominant and as many as 200 species may be found in the forested wetlands (Sandifer et al. 1980:375).

Because the palustrine forested wetlands include a variety of forest types, a number of terrestrial mammals will be found in the area. A major herbivore typical of this area is the beaver (Castor canadensis), which previously was found along rivers, streams, and lakes (Sandifer et al. 1980:381). One of the larger herbivores of the forested wetlands is the whitetailed deer, which is attracted by the browse common to some forest types. Two additional mammals, once more common than today, are the black bear (Ursus americanus) and the bobcat (Lynx rufus).

Climate

Depending upon whose authority may be trusted, the nineteenth century Beaufort climate was "one of the healthiest" (Mills 1826:377), "salubrious" (Mills 1826:372), and "equable" (S.C. Department of Agriculture 1883:20), or it had "malaria arising from the Southern swamps" (Copp 1911:94) and "excessive heat" (Copp 1911:169). Linehan felt that "[m]alaria was the greatest curse of the sea coast, as all know who served there and who feel its evil affects to this day" (Linehan 1895:211). Forten wrote that "yellow fever prevailed to an alarming extent, and that, indeed the manufacture of coffins was the only business that was at all flourishing at present" (Forten 1864:588). A letter written in December 1861 is quoted by Walkley,

> between [the fleas] and malarial headache sleep is anything but restfull . . . . The matted vines trail down into the dank edges of the swamps and the hot sun by day decays them enough to exhale malarious gases by night (Walkley 1905:34).

The major climatic controls of the area are the latitude, elevation, distance from the ocean, and location with respect to the average tracks of migratory cyclones. Hilton Head's latitude of about 32°N places it on the edge of the balmy subtropical climate typical of Florida. As a result there are relatively short, mild winters and long, warm, humid summers. The large amount of nearby warm ocean water surface produces a marine climate, which tends to moderate both the cold and hot weather. The Appalachian Mountains, about 220 miles to the northwest, block shallow cold air masses from the northwest, moderating them before they reach the sea islands. Distance from the ocean is also significant because of the sea breeze phenomenon, which normally begins before noon and continues until late afternoon (Landers 1970:2-3; Mathews 1980:46).

Maximum daily temperatures in the summer tend to be near or above 90°F (32°C) and the minimum daily temperatures tend to be about 68°F (20°C). The summer water temperatures average 83°F (28°C). The abundant supply of warm, moist, and relatively unstable air produces frequent scattered showers and thunderstorms in the summer. Winter has average daily maximum and minimum temperatures of 63°F (17°C) and 38°F (3°C) respectively. The average winter water temperature is 53°F (12°C). Precipitation is in the forms of rain associated with fronts and cyclones; snow is uncommon (Janiskee and Bell 1980:1-2).

The average yearly precipitation is 49.4 inches (125.6 centimeters), with 34 inches (86.5 centimeters) occurring from April through October, the growing season for most sea island crops. Hilton Head has approximately 285 frost free days (Janiskee and Bell 1980:1; Landers 1970).

While the temperatures on the Sea Islands are not extreme, the relative humidity ıs frequently high enough to produce muggy conditions in the summer and dank conditions in the winter. Relative humidity ranges from about 63-89% in the summer to 58-83% in the winter. The highest relative humidity occurs in the morning and as the temperature increases, the humidity tends to decline (Landers 1970:11; Mathews et al. 1980:46).

Along the Sea Islands severe weather usually means tropical storms and hurricanes; tornados are ınfrequent and waterspouts tend to remain over the ocean. The tropical storm season is in late summer and early fall, although they

may occur as early as May or as late as October. The coastal area is a moderately high risk zone for tropical storms, with 169 hurricanes being documented from 1686 to 1972 (0.59 per year) (Mathews et al 1980:56).

When discussing tropical storms it is customary to rank them according to size and intensity on a scale of 1 to 5. This ranking is based on wind speed, storm surge, central atmospheric pressure, and destruction, with the most intensive storms receiving higher numerical ranging (5=Extreme; 4=Great; 3=Major; 2=Hurricane). One of the most devastating effects of these storms, particularly during the prehistoric and earlier historic periods, were the associated storm tides. These storm tides are defined as the height of the sea surface above the local MSL during the storm. The 1804 hurricane produced a storm tide of 7 feet (2.1 meters) and 500 deaths were reported in South Carolina. The 1881 hurricane produced a storm tide of 16.2 feet (4.9 meters) and 700 deaths in Georgia and South Carolina. Perhaps the worst recorded hurricane occurred on August 27, 1893. Although wind speed did not exceed 120 miles/hour (194 kilometers/hour), the storm tide was 17.0 to 19.5 feet (5.18 to 5.94 meters) and up to 2000 deaths were reported (Mathews 1980:54-55). No significant hurricanes occurred between September 1854 and August 1881, sparing Hilton Head during the Civil War and Reconstruction. Perhaps the most concise description of the attitude toward hurricanes in the nineteenth century was offered by Ramsay,

> [i]n such a case between the dread of pestilence in the city, of common fever in the country, and of an expected hurricane on the island, the inhabitants . . . are at the close of every warm season in a painful state of anxiety, not knowing what course to pursue, nor what is best to be done (Ramsay, quoted in Calhoun 1983:2).

Prehistoric Occupation in the Beaufort Area

Previous Research

While there were several antiquarian endeavors in the late nineteenth century, the advent of quasi-scientific archaeology was Clarence B. Moore's (1899) investigation of 14 aboriginal sites along the southern coast. Spurred northward by his success in Georgia, where 63 mounds or mound complexes were investigated, Moore was disappointed with the sparse remains he found in the Beaufort area. No large mounds with complicated-stamped pottery and urn burials were

identified, although "dwelling sites marked by the presence of oyster shells were often met with" (Moore 1899:147). Moore's survey generally reflects the widespread occurrence of Early to Middle Woodland sites and the rarity of Late Woodland or South Appalachian Mississippian sites in the Beaufort area (an observation repeated by Braley 1983 and Trinkley 1981).

The Charleston Museum houses data collected by W. Ritter and W.K. Moorehead from excavations at the Chester Field shell ring and the Lake Plantation shell middens. Extensive excavations were undertaken at both locations during the period from 1930 to 1939, but nothing was published until a student of Moorehead summarized the activity almost ten years later (Flannery 1943; see also Griffin 1943). The Chester Field site appears to be a Stallings-Thom's Creek phase shell ring, while the sites at Lake Plantation consist of a number of small shell middens representing a large range of Woodland cultural periods. Other sites investigated by Moorehead and Ritter (for which there are collections in The Charleston Museum) include the Jones Island site (Stallings shell midden, now completely plowed away), the Cat Island site (largely destroyed by cultivation and recent development), and the Kempfer Place (where a sand burial mound was completely excavated).

By the late 1930s the existence of aboriginal remains along the South Carolina coast had been documented, described, and to a large extent illustrated. Emphasis had been (and would largely continue to be) placed on the highly visible: shell middens, strange ring-shaped enclosures of shell, and sand mounds. Although great emphasis was placed on collection and description during this period, little concern was placed on understanding. Even the significance of the Stallings Island site, excavated in 1930 by the Cosgroves under Peabody Museum sponsorship (Claffin 1931), was not fully understood and the distinctive fiber tempering of Stallings pottery was not recognized as significant until Fairbanks' (1942) article.

Depression era work on the Georgia coast, primarily by Antonio Waring (Williams 1968), formed a cultural framework that remained largely unchanged into the 1970s. Major Georgia sites included Bilbo, Deptford, Wilmington Island (Meldrim, Walthour, and Oemler), and Sapelo, while the Refuge site was just within South Carolina (Caldwell 1952).

The Bilbo site (Williams 1968:152-197; see also Dye 1976) is a Stallings phase shell midden which dates from 2175 to 1750 B.C. and which suggested a Stallings Plain, Stallings Punctated, Refuge, Deptford continuum. The work at the Sapelo shell ring provided clear evidence of the site's basic occupational function. The plain Stallings pottery was found stratigraphically below the decorated motifs (Williams

1968). The Oemler, Meldrim, and Walthour sites evidenced Stallings, Deptford, and Savannah components (Caldwell 1952; DePratter 1979b:40-42; Williams 1968:112, 118, 129-130, 182-183). Waring observed the Refuge pottery as a transition from Stallings to Deptford ceramics at the Refuge site (Williams 1968:198-208), while the Deptford and Evelyn sites provided data on the Middle Woodland occupation along the coast (DePratter 1979b:38-39, 52; Williams 1968:140-142).

During this same time Joseph Caldwell was investigating a series of sites along the Georgia Coast, including a Savannah phase burial mound at the Deptford site (Caldwell 1943), the Irene site (Caldwell and McCann 1941), and various Wilmington sites in the Savannah area (see Caldwell and McCann 1940). At Walthour, Caldwell and McCann (1940) note a common problem at coastal sites -- abundant post holes, but an absence of patterns. Their report also clearly reveals that while shell middens are abundant, the quantity of artifacts drastically decreased into the Middle Woodland (a synthesis of much of this work is provided by Caldwell 1952:312-321).

In 1945 Griffin published an informal (but lasting) typology of the Thom's Creek series, based on 19 sherds from the type site in Lexington County. Griffin (1945:467) found the sherds to be non-tempered or slightly grit tempered, with motifs similar to the Stallings pottery. Another major development in the understanding of South Carolina pottery types and cultural periods, was Stanley South's (1960) survey of southeastern coastal North Carolina and northern South Carolina. He identified and offered typologies for Thom's Creek, Cape Fear, Hanover, and Oak Island wares based on a collection of 2701 sherds from 81 sites. This typology stood, essentially unaltered, for the next 20 years.

During the 1960s Alan Calmes examined three sites on Hilton Head and one site from adjacent Jenkins Island (Calmes 1967a, 1967b). Two of the sites, Sea Pines and Ford's Skull Creek, were shell rings, while the other two, Jenkins Island and Green's Shell Enclosure, represented Wilmington and Irene occupations respectively. These studies yielded significant comparative collections and assisted in developing a better understanding of Hilton Head's cultural history.

Aboriginal activity along the Savannah River is intimately connected with the manifestations of the coastal area, and in the mid to late 1960s a series of investigations were conducted at several early Savannah River sites. James Stoltman (1974) intensively studied the Rabbit Mount site and briefly surveyed twenty other sites, all on Groton Plantation in South Carolina. A synthesis of site distribution and cultural ecology was offered for these sites which showed a transition from flood plain dependence in the Stallings phase to upland exploitation in the Wilmington period (cf.

Trinkley 1974). This gradual movement from floodplains to upland was thought to be correlated with the rise of horticulture, although no direct evidence of cultigens or agricultural activity was observed in the archaeological record (Stoltman 1974:214). Stoltman also provided considerable documentation of the Savannah River Stallings occupation. Peterson's (1971) subsequent work on Groton Plantation did not radically alter the perspective developed earlier by Stoltman.

Several sites in Georgia were investigated by David Phelps, including the Stallings phase White's Mound where the stratigraphic sequence of Stallings Plain, Stallings Punctated, Deptford, and Wilmington was observed (Phelps and Burgess 1964). Phelps also used the data from this site to develop a Thom's Creek typology for the Savannah River region (Phelps 1968). Whites Mound was also investigated by A.R. Kelly (University of Georgia-Athens) and Joffre Coe (University of North Carolina-Chapel Hill). The Chapel Hill collection was examined by Trinkley (1980c:46-48) and found to reveal the presence of coiled Stallings pottery, increasing through time at the expense of traditional moulded Stallings pottery and coincidental with the development of non-tempered Thom's Creek pottery. That coiled Stallings pottery would eventually be found was suggested by Griffin, who upon examining the Chester Field collection noted that there was a "suggestion of coiling or ring building on some sherds, but it is not too clear" (Griffin 1943:159).

A significant Savannah River quarry site, Teriault, was excavated by William Edwards in the 1960s, although no report was produced until Paul Brockington's 1971 summary. Regretably, the field notes could not be located, but the site produced 120 projectile points, 973 bifaces, and a quantity of other tool types. The ceramics from the site suggest a Stallings, Thom's Creek, Refuge, Deptford, and cord marked transition from levels 4 to 1.

In 1970 Richard Smith surveyed a number of sites on the Savannah River below Augusta, Georgia and tested five sites (Smith 1974). One of these evidenced a "pure" Savannah River phase component. Trinkley (1974) briefly examined a Stallings phase upland site in Allendale County, South Carolina which may represent a portion of a seasonal exploitation round. The site also exhibited a mixture of Stallings and Thom's Creek pottery. At about the same time another Stallings site in Allendale County, known as Fennel Hill, was discovered being actively vandalized (38AL2, notes on file, S.C. Institute of Archaeology and Anthropology). The site produced an abundance of Stallings pottery and an extraordinary quantity of bone artifacts (Figure 8).

Milanich (1971) conducted test excavations at two shell middens on Cumberland Island in 1970 (see also Ehrenhard

1976) which provided extensive data on coastal Deptford. Milanich reports the discovery of a posited Deptford structure, oval in shape and measuring 32 by 22 feet (9.7 by 6.7 meters) (Milanich 1971:67).

Anderson used data from 203 South Carolina Coastal Plain sites to study the distribution of major ceramic wares (Anderson 1975). Stallings pottery was found concentrated in the area of the Savannah drainage and "[m]oving northward from the Savannah River, the Edisto is the last drainage with a high incidence of this material" (Anderson 1975:181) (Figure 9). Thom's Creek pottery was found to be centered between the Santee and Edisto River regions, with gradually decreasing amounts to the northeast and southwest. Anderson comments that Deptford wares are more common in the interior than on the coast, "suggesting an adaption to the rich resources of this [inland] area" (Anderson 1975:186). Subsequently, one fall line Deptford phase site has been extensively studied (Anderson 1979a; Trinkley 1980a), as has one on the Savannah River (Hanson 1985).

Shell ring studies continued with the investigation of two sites on the Georgia coast by Marrinan (1975), and DePratter (1979b). Work at the Lighthouse Point and Stratton Place shell rings in Charleston County, South Carolina (Trinkley 1980c) opened large areas and succeeded in developing considerable information on site formation and function. The sites apparently formed through gradual accumulation and represent domestic refuse from year-round village occupation. Trinkley also suggested that population pressure in the Savannah River area necessitated new forms of subsistence (see Smith 1974), such as shellfish collection. The expansion of population onto the coast is thought to be seen at sites such as Daws Island, Venning Creek, and Spanish Mount -- irregularly shaped middens having radiocarbon dates averaging 1921 B.C. These early sites are noted to have cultural assemblages that closely approximate the Stallings phase: clay balls, lithics, limited amounts of worked bones, and fiber-tempered pottery. As the people of the Thom's Creek phase became more successfully adapted to the highly productive coastal ecosystem, three major changes seem to have occurred: a coalescence in population, an increase in the complexity of social organization, and a specialization of technology. Thus, by 1500 B.C. the Thom's Creek phase was firmly entrenched, generally successful, and people were living primarily at shell ring sites.

Caldwell (1971) and Milanich (1977:134-142) have both offered revisions of Warings' (Williams 1968) basic Georgia coast chronology. More recent work on the Georgia coast has been dominated by the research conducted by the American Museum of Natural History (Thomas et al. 1978, Thomas and Larsen 1979) on St. Catherines Island, about 35 miles (56 kilometers) south of Savannah. Posited Refuge-Deptford

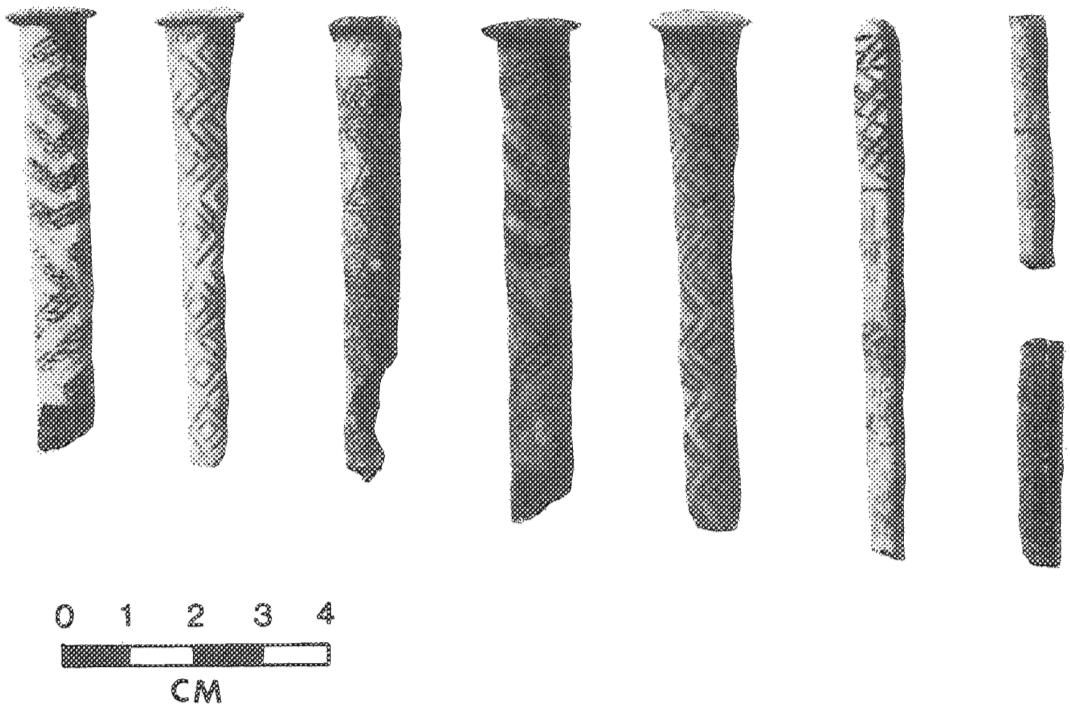


Figure 8. Worked bone from Fennel Hill, S.C. (38AL2).

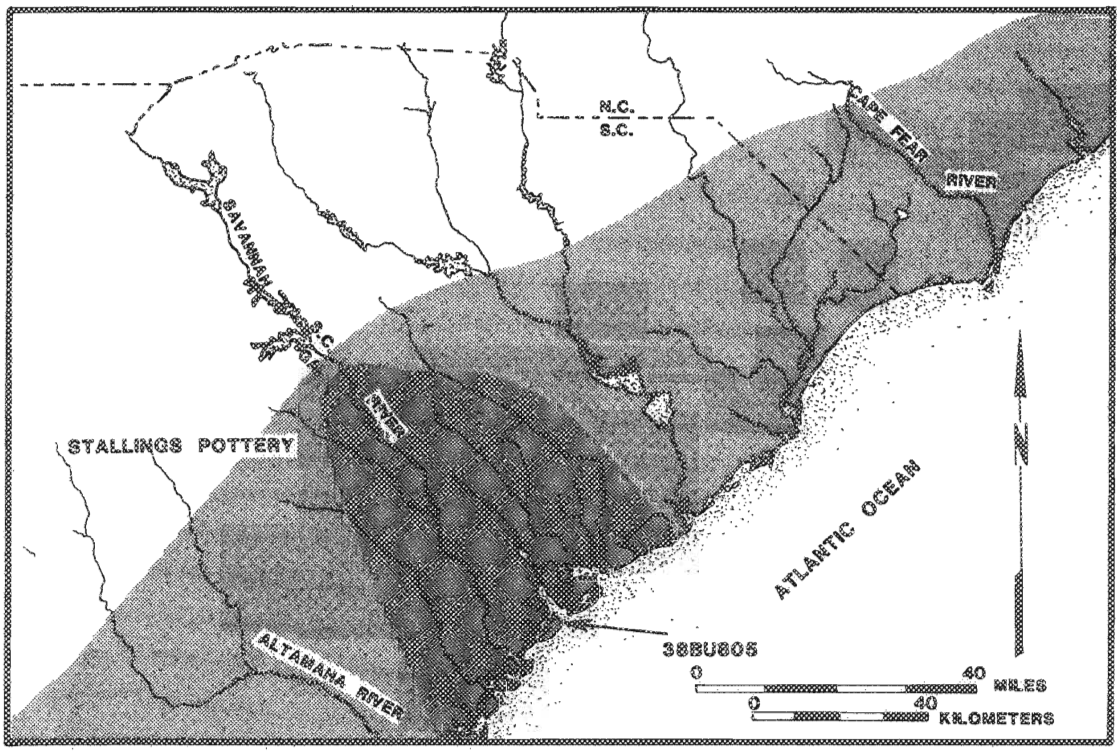


Figure 9. Distribution of Stallings pottery in South Carolina.

mortuary sites, dating from 1700 B.C. to A.D. 550, have been studied. As a result of this work and additional research, DePratter (1979a) has offered a cohesive synthesis of Georgia coastal ceramics and dates (Figure 10). Adams' (1985) work in the Kings Bay locality, just north of the Florida border in Georgia, provides significant subsistence and settlement data for a number of cultural periods, including Late Archaic or Early Woodland fiber-tempered occupations. This work represents significant methodological advances over previous studies, particularly in the realm of subsistence reconstruction.

The Beaufort area has received considerable attention over the past 10 years. Surveys have been conducted of the Port Royal Sound shores (Michie 1980), Callawassee Island (Michie 1982), portions of Daufuskie Island (Michie 1983), Pinckney Island (Braley 1983; Charles 1984; Drucker and Anthony 1980), and Victoria Bluff (Trinkley 1981; Widmer 1976). Extensive excavations have been conducted at a number of prehistoric sites including Location 22 in the Savannah National Wildlife Refuge (Lepionka et al. 1983), two sites on Pinckney Island (Trinkley 1981), the Victoria Bluff Shell Middens (Trinkley 1981), and the Callawassie Island Burial Mound (Brooks et al. 1982).

Historical archaeology in the Beaufort area, prior to South's investigations of Santa Elena and Charlesfort on Parris and Port Royal islands respectively (South 1979, 1980, 1982a, 1982b, 1983, and 1984), was primarily a by-product of prehistoric investigations. In fact, there is only one summary article on the archaeology of several major plantations excavated in Beaufort County (Grunden 1985). Elsewhere, however, historical archaeology began to focus on plantation sites and topics such as socioeconomic status and slave lifestyle. Two recent articles summarize the progress of plantation archaeology (Fairbanks 1984; Orser 1984).

Fairbanks emphasizes the slave archaeology conducted primarily on the Georgia coast by University of Florida researchers. These studies include Kingsley Plantation on Fort George Island, Florida (Fairbanks 1972), Ryefield on Cumberland Island, Georgia (Ascher and Fairbanks 1971), Cannon's Point, St. Simons Island, Georgia (Otto 1984), Hampton Plantation on Butler Island, Georgia (Singleton 1980), and LeConte Plantation near Riceboro, Georgia (Hamilton 1980). Data from these projects have shed light on the socioeconomic status, diet, and housing of slaves. Little has been learned about black ethnicity, burial practices, or Afrocanisms. Fairbanks briefly comments on excavations carried out by Theresa Singleton and Martin Dickinson for West Georgia College at a freedmen's site on Colonel's Island near Burnswick, Georgia (Singleton 1985). The bulk of the artifacts date from the 1860s and 1870s and are indicative of "extreme poverty." House construction and

dietary remains are also, according to Fairbanks (1984:8), indicative of a standard even below slavery. Fairbanks, however, suggests that both broader excavations and comparative data from white subsistence farmers are needed.

Orser's (1984) review is a critical evaluation of plantation archaeology, emphasizing three areas: plantation slavery, plantation social structure, and the value of cultural resource management studies. Several of his observations are significant to a complete understanding of recent plantation research. He notes that the work at Yaughan and Curriboo Plantations in Berkeley County, South Carolina (Wheaton et al. 1983) addresses the process of slave acculturation as seen in artifact patterns, architectural remains, and food preparation practices. Although not specifically mentioned by Orser, the Yaughan-Curriboo work is also significant for its separation of slave produced (Colono ware) and Indian produced (Catawba ware) pottery (Wheaton et al. 1983:225-250). Orser (1984:5-6) contrasts the work of Otto (1984) and Sue Mullens-Moore (1981). Otto suggests that social status is observable in the archaeological record and notes that the archaeological remains of planter - overseer - slave are all distinct. Mullins-Moore argues that it is perhaps economic position which is being observed archaeologically, so that the material culture of a small planter may be similar to that of an overseer at a large, wealthy plantation. The conclusion from this comparison is, of course, that history is not simple. Schlereth warns that "[t]o enshrine any one version of the American past violates historical truth" (Schlereth 1980:215).

While plantation archaeology has received considerable attention over the past 15 years, little archaeological attention has been directed to free blacks in either the urban or rural antebellum south. Studies have been conducted in the north at Weeksville (Salwen and Bridges 1974), Sandy Ground (Schuyler 1974), Parting Ways (Deetz 1977), Black Lucy's Garden (Baker 1977; Bullen and Bullen 1945), and Skunk Hollow (Geismar 1982). In the South there is a growing interest in the archaeology of rural tenant farmers, although the work is largely limited to the studies of William Adams (1980) at Waverly Plantation, Mississippi and Orser's (Orser et al. 1983), at Millwood Plantation, South Carolina. No studies of postbellum black farmers have been undertaken on South Carolina's Sea Islands.

Overview of Prehistoric Occupation

The previous discussions clearly indicate that the work conducted in the vicinity of the Savannah River, while variable in orientation, is sufficient to develop a sequence of occupation and at least some information on how the prehistoric occupants lived. This section will emphasize the

Stallings phase and present only a brief review of other temporal periods.

The Paleo-Indian period, lasting from 12,000 to 8,000 B.C., is evidenced by basally thinned, side-notched projectile points; fluted, lanceolate projectile points; side scrapers; end scrapers; and drills (Coe 1964; Williams 1968; Michie 1977). The Paleo-Indian occupation, while widespread, does not appear to have been intensive. Artifacts are most frequently found along major river drainages, which Michie interprets to support the concept of an economy "oriented towards the exploitation of now extinct mega-fauna" (Michie 1977:124). To date only isolated finds have been found in the area and Michie (1977:104-105) identifies only two Beaufort County sites with Paleo-Indian points -- 38BU110 and 38BU114. Sea level during much of this period is expected to have been as much as 65 feet (20 meters) lower than present, so many sites may be inundated (Flint 1971). Unfortunately, little is known about Paleo-Indian subsistence strategies, settlement systems, or social organization. Generally archaeologists agree that the Paleo-Indian groups were at a band level of society (see Service 1966), were nomadic, and were both hunters and foragers. While population density, based on the isolated finds, is thought to have been low, Walthall suggests that toward the end of the period "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

The Archaic period, which dates from 8000 to 2000 B.C., does not form a sharp break with the Paleo-Indian period, but is a slow transition characterized by a modern climate, an increase in population, and an increase in the diversity of material culture. The chronology established by Coe (1964) for the North Carolina Piedmont, may be applied with little modification to the South Carolina coast. Archaic period assemblages are rare in the Sea Island region, although the sea level is anticipated to have been within 13 feet (4 meters) of its present stand by the beginning of the succeeding Woodland period (Lepionka et al. 1983:10). Brooks and Scurry note that,

> Archaic period sites, when contrasted with the subsequent Woodland Period, are typically small, relatively few in number and contain low densities of archaeological material. This data may indicate that the inter-riverine zone was utilized by Archaic populations characterized by small group size, high mobility, and wide ranging exploitative patterns (Brooks and Scurry 1978:44).

Alternatively, the general sparsity of pre-ceramic Archaic sites in the coastal zone may be the result of a more attractive environment inland adjacent to the floodplain swamps of major drainages. Of course, this is not necessarily an alternative explanation, since coastal Archaic sites may represent only a small segment in the Archaic settlement system.

The Woodland period begins by definition with the introduction of fired clay pottery about 2000 B.C. along the South Carolina coast (the introduction of pottery, and hence the beginning of the Woodland period, occurs much later in the Piedmont of South Carolina). It should be noted that many researchers call the period from about 2000 to 1000 B.C. the Late Archaic because of a perceived continuation of the Archaic lifestyle in spite of the manufacture of pottery. Regardless of terminology, the period from 2000 to 1000 B.C. is well documented on the South Carolina coast and is characterized by Stallings and Thom's Creek pottery.

It has generally been assumed that the first ceramics were produced in the Savannah River region. A number of investigators have found evidence, either stylistic or stratigraphic, for an in situ development of the Stallings culture (Miller 1949, Williams 1968, Smith 1974). This idea has been given additional credence by Stoltman's (1966) early radiocarbon date of 2500 B.C. from Rabbit Mount (Allendale County, S.C.). The paste of these ceramics included large amounts of Spanish moss fiber (Simpkins and Allard 1986). Radiocarbon dates suggest that ceramics without fiber inclusions followed on the heels of the Stallings ware. Although this is suggestive of the origin of the Stallings culture, it does not explain the process. Smith (1974), after an extensive study of the Central Savannah River region, suggested that, as a response to climatic conditions of the Altithermal, there were intrusions into the Savannah River region by the carriers of the Morrow Mountain and Guilford complexes. A highly successful, generalized adjustment to the Piedmont was made, and combined with the established Stanly complex, the transition was made to the Savannah River complex (Coe 1964:70, 123). The intrusion of Morrow Mountain and Guilford, at a time when population densities had approached long-term carrying capacity, caused a disequilibrium which resulted in selective pressure being directed toward a method of procuring supplemental food sources. One such source was shellfish, which were apparently becoming available in larger quantities about this time (Hanson 1982:13). This more effective subsistence base led to a population increase and, thus, larger sites. Ceramics, elaborate bone workmanship, and other aspects of the total cultural pattern were added as an outgrowth.

Smith goes on to suggest that the larger social units and the resultant disequilibrium led to further geographical

expansion -- into the Atlantic Littoral. This expansion was fairly rapid as irregularly shaped middens, such as Daws Island, Venning Creek, Spanish Mount, and Marrett Mount, have radiocarbon dates averaging 1921 B.C. The earliest sites may be expected to possess cultural assemblages more closely approximating the Stallings culture than larger (and later) sites. Thus, many of these early irregular middens have clay balls, large amounts of lithics, limited amounts of worked bone, and pottery with fiber inclusions. Simpkins and Allard suggest that initially the use of fiber was technological -- that it served to "bind soils during initial shaping and subsequent firing" (Simpkins and Allard 1986:114). They go on to hypothesize that,

> [a]s potters became more familiar with the properties of clays and the means of shaping and firing them, fiber-tempering may have become technologically obsolete. However, cultural conservatism might have preserved the trait for some time as ceramic production diffused through a region (Simpkins and Allard 1986:114).

This hypothesis would explain why the presently available radiocarbon dates for the fiber-tempered Stallings and nontempered Thom's Creek wares are largely contemporaneous. It would also explain why, when both Stallings and Thom's Creek pottery are found stratigraphically separated on the same site, the Stallings ware is the earliest of the two.

The elaborate Savannah River drainage sites such as Stallings Island, Fennel Hill, Rabbit Mount, and Bilbo, are all characterized by large quantities of either freshwater mussel or tidal oysters, large quantities of artifacts, and abundant features. Stoltman (1974:51-56) further suggests the possiblity of a structure at Rabbit Mount. These middens, however, represent only one aspect of the Stallings settlement system. Another portion of that system is represented by Stallings sites which evidence little shell. The function of these non-shell midden sites, characterized by DePratter as evidencing "limited occupation in marginal areas" (DePratter 1979b:37), is poorly understood. These may represent early sites when the subsistence base was diffuse, prior to intensive riverine and estuarine exploitation. Alternatively, they may represent a seasonal round in the Stallings settlement system (another view has been presented by Michie 1979 and reviewed by Trinkley 1980c:309-314).

While there may have been seasonal rounds at first, the coast is rich in available resources and there would seem to be no ecological determinents of subsistence such as exist with the Kung bushmen (Lee 1968:56). The archaeological

record of the later Thom's Creek phase offers some indications of permanent settlement with the various remains indicating an occupation during a considerable portion of the year. The frequent occurrence of pottery and the occurrence of a diffuse subsistence base support the contention of continuous habitation.

As the people of the Stallings-Thom's Creek phases became more successfully adapted to the coastal ecosystem there seem to have been three major changes: first, a coalescence in the population; second, an increase in the complexity of social organization, and third, a specialization of technology. Coe and Flannery have stated, "a drastic reduction of the number of niches to be exploited, and a concentration of these in space, would . . . permit the establishment of full-time village life' (Coe and Flannery 1964:651). The process along the Carolina and Georgia coasts was essentially the same as the process in Meso-America -- that of realizing and utilizing the potential resources concentrated close at hand.

The subsistence economy was based primarily on deer hunting and fishing, with supplemental inclusions of small mammals, birds, reptiles and shellfish. Various calculations of the probable yield of deer, fish, and other food sources identified from shell ring sites indicate that sedentary life was not only possible, but probable. Recent work at fiber-tempered sites on the southern Georgia coast has led Quitmyer to note that there was,

> a specialized economy heavily dependent on marine resources. Marine invertebrates, primarily oyster, were the most significant of the zoological resources. Marine vertebrates, primarily drum, accounted for another important aspect of the diet. To a lesser extent Sea catfishes (Ariidae) and mullet were part of the diet. Terrestrial animals, like deer, represented only an occasional resource (Quitmyer 1985a:90).

By 1500 B.C. the Thom's Creek phase was firmly entrenched and generally successful. Through purely local innovation a culture along the coast of South Carolina and Georgia was establishing for itself a settled existence that was not going to be equaled until at least A.D. 1200. Toward the end of the Thom's Creek phase there is evidence of sea level change and a number of small, non-shell midden sites are found. Apparently the increasing sea level drowned the tidal marshes (and sites) on which the Thom's Creek "people" relied. The succeeding Refuge phase evidences the fragmentation necessary when the environment which gave rise to large, sedentary populations disappeared.

The Refuge phase, which dates from about 1100 to 500 B.C. is best known from the Refuge and Location 22 sites in the Savannah delta region (DePratter 1976; Lepionka et al. 1983; Williams 1968). Sites are generally small and some coastal sites evidence no shellfish collection at all (Trinkley 1982). The Refuge series pottery is similar in many ways to the preceeding Thom's Creek wares. The paste is compact and sandy or gritty, while surface treatments include sloppy simple stamped, dentate stamped, and random punctated decorations (see DePratter 1979a:115-123). Peterson (1971:153) characterizes Refuge as a degeneration of the preceeding Thom's Creek series and a bridge to the succeeding Deptford series (see also DePratter 1976:6).

The Deptford culture takes its name from the type site located east of Savannah, Georgia which was excavated in the mid-1930s (Caldwell 1943:12-16, 1952). Deptford sites are best recognized by the presence of fine to coarse sandy paste pottery with a check stamped surface treatment. Other Deptford phase pottery styles include cord marking, simple stamping, a complicated stamping which resembles early Swift Creek, and a geometric stamping which consists of a series of carved triangles or diamonds, often with interior dots (Williams 1968). The Deptford culture is dated from about 1100 B.C. to A.D. 600.

Deptford sites are found from Georgia northward to the Neuse River in North Carolina and, in South Carolina, west to the Fall Line. The settlment pattern involves both coastal and inland sites. The coastal sites, which are always situated adjacent to tidal creeks, evidence a diffuse subsistence system and are frequently small. The inland sites are also small, lack shell, and are situated on the edge of swamp terraces. This "dual distribution" has suggested to Milanich (1971:194) a transhumant subsistence pattern. While such may be the case, it has yet to be documented on the coast. The Pinckney Island midden, north of Hilton Head, evidences a reliance on shellfish and was occupied in the late winter (Trinkley 1981). The Minim Island midden, also on the coast in Georgetown County, indicates a greater reliance on fish and was apparently occupied in the fall or winter (Drucker and Jackson 1984).

The Middle Woodland occupations in South Carolina are characterized by a pattern of settlement mobility and short term occupation. On the southern coast it is associated with the Wilmington phase, which dates from about 100 B.C. to as late as A.D. 900. The pottery is characterized almost solely by its crushed sherd temper which makes up 30 to 40% of the paste and which ranges in size from 1/8 to 3/8 inches (3 to 10 millimeters) (see DePratter 1979a; Williams 1968:113-116).

This Middle Woodland period is characterized by the use of sand burial mounds and ossuaries along the Georgia, South

Carolina, and North Carolina coasts (Brooks et al. 1982; Caldwell 1952; Thomas and Larsen 1979; Wilson 1982). Middle Woodland Coastal plain sites continue the Early Woodland Deptford pattern of mobility. While sites are found all along the coast and inland to the Fall Line, shell midden sites evidence sparse shell and few artifacts. Gone are the abundant shell tools, worked bone items, and clay balls.

In many respects the South Carolina Late Woodland may be characterized as a continuation of previous Middle Woodland cultural assemblages. While outside the Carolinas there were major cultural changes, such as the continued development and elaboration of agriculture, the Carolina groups settled into a lifeway not appreciably different from that observed for the previous 500 to 700 years. This situation would remain unchanged until the development of the South Appalachian Mississippian complex.

The Late Woodland on the southern South Carolina coast is characterized by the St. Catherines phase, first defined by Caldwell (1971) based on his St. Catherines Island work. The ceramics have fine clay tempering and carefully smoothed interiors. Surface treatments include fine cord marked, burnished plain, and net marked (DePratter 1979a; Trinkley 1981:73-88). Only one St. Catherines midden area in South Carolina, Victoria Bluff, has been examined. At this site the economy was based on shellfish collection and there is evidence of winter-spring occupation. The subsistence base appears more focal than is found at the preceeding Middle Woodland midden sites. The St. Catherines phase may last, in the Beaufort area, as late as the fourteenth century A.D. (Trinkley 1981). The tenacity of this simple lifestyle suggests that the Gaule intrusion was relatively minor in many areas, or at least co-existed with the native inhabitants whose lifestyles were generally unchanged.

The South Appalachian Mississippian is the most complex level of culture attained by the native inhabitants and is followed by cultural desintegration brought about largely by European disease. The period is characterized by complicated stamped pottery, complex social organization, agriculture, and the construction of temple mounds and ceremonial centers. The earliest phases include the Savannah and Irene (1200-1550 A.D.). Sometime after the arrival of Europeans on the Georgia coast in 1519 A.D., the Irene phase is replaced by the Altamaha phase. The ceramics associated with this period were made,

> at least through the end of the Spanish Mission period in the 1680s, when the various Guale groups were either relocated to the St. Augustine vicinity or dispersed by the English (DePratter and Howard 1980:31).

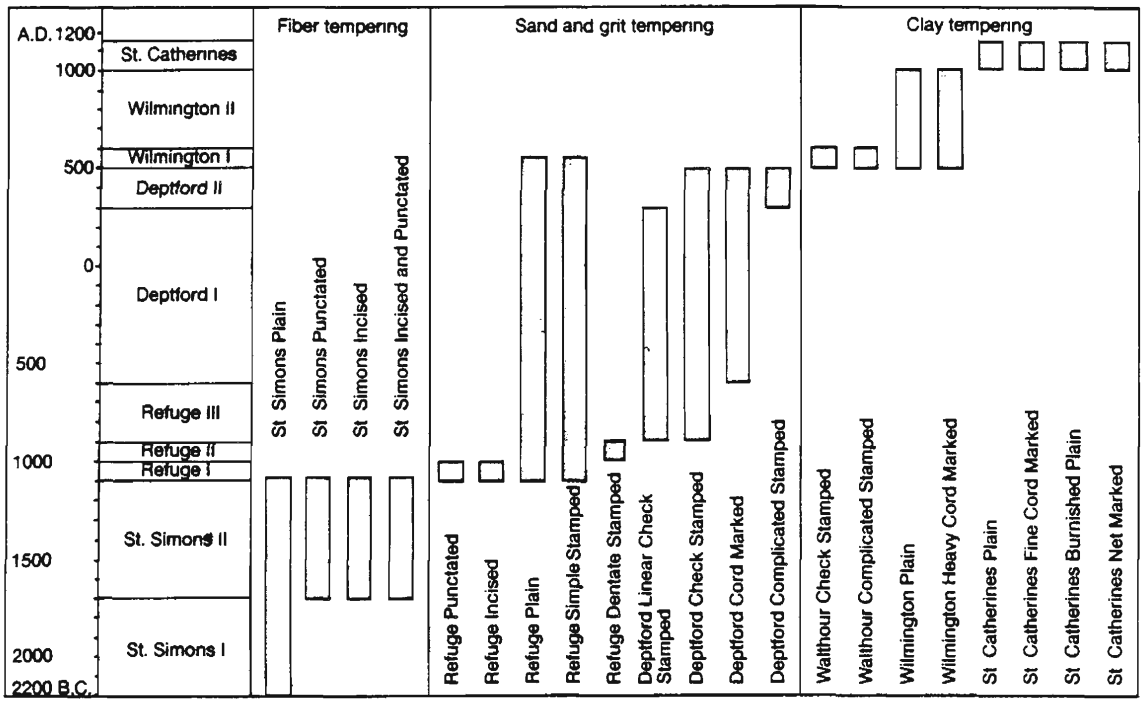


Figure 10. Ceramic chronology for the northern Georgia coast (from DePratter 1979a:Figure 62).

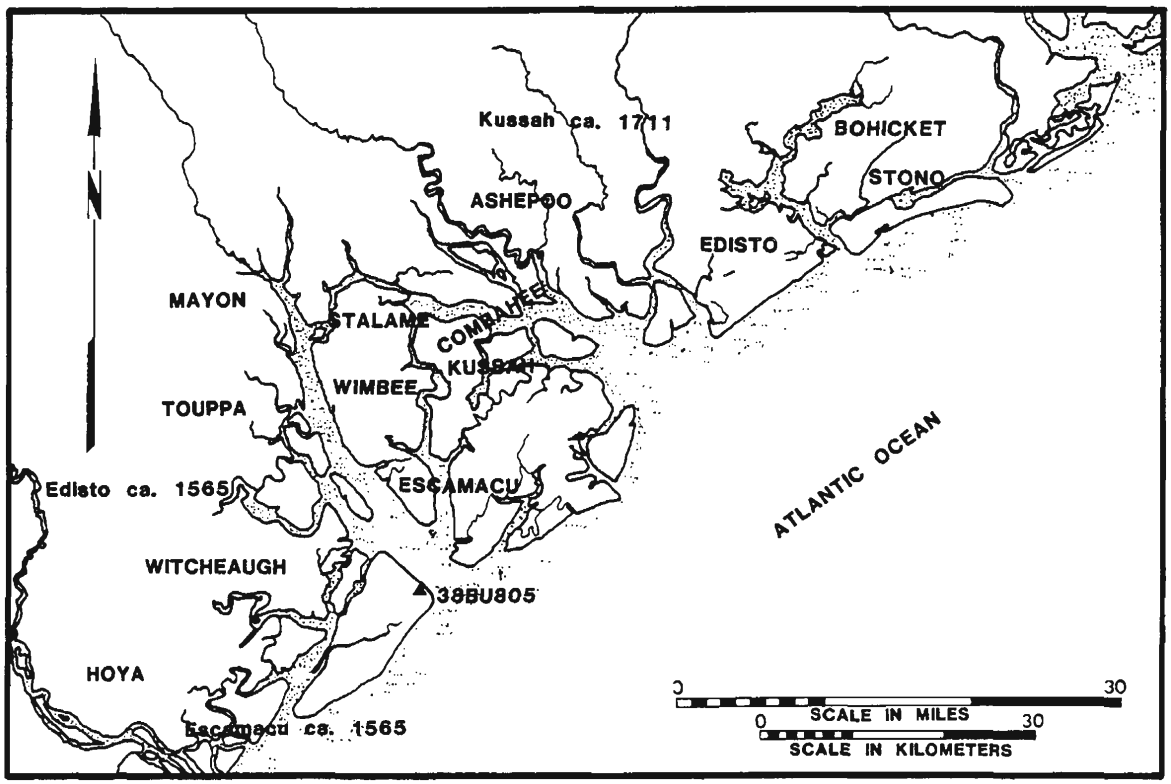


Figure 11. Indian groups of the South Carolina low country during the sixteenth and early seventeenth centuries (after Waddell 1980).

Considerable ethnohistoric data has been collected on the Muskhogean Georgia Guale Indians by Jones (1978, 1981). This group extended from the Salilla River in southern Georgia northward to the North Edisto River in South Carolina (Jones 1981:215). Jones suggests that the Guale may have been divided into chiefdoms, with two, the Orista and the Escamacu-Ahoya, being found in South Carolina (Jones 1978:203). During the period from 1526 to 1586, Jones places the Escamacu-Ahoya in the vicinity of the Broad River in Beaufort County, while the Orista are placed on the Beaufort River, north of Parris Island. By the late seventeenth century the principal town of the Orista appears to have been moved to Edisto Island, about 30 miles to the north (Jones 1978:203).

Waddell considers Orista a varient of Edisto (Waddell 1980: 126-168) and places them on Edisto Island by 1666. Prior to that time they were situated in the Port Royal/Santa Elena area. The Escamacu are noted to also have lived in the Port Royal area, between the Broad and Savannah rivers (Waddell 1980:3, 168-198). Nearby were the Yoya, Touppa, Mayon, Stalame, and Kussah (Waddell 1980:3). Many of these tribes (such as the Kussah and Edisto) shifted northward as a result of the Escamacu War (1576-1579) when the Spanish sent out major expeditions. Waddell believes that the Escamacu War "probably left the area between the Broad and the Savannah rivers deserted" (Waddell 1980:3). He notes that in 1684,

> the Proprietors decided to clear their title to the coast between the Savannah and the Stono rivers . . ., so they had eight separate cessions and one general cession made to give them a paper claim to all of this territory. The Witcheaught (previously unknown), St. Helena (Escamacu), Wimbee, Combahee, Kussah, Ashepoo, Edisto, and Stono surrendered all their claims (Waddell 1980:4).

Historical Overview

Aboriginal groups and culture persisted in the low country into the eighteenth century, although their population declined from at least 1750 in 1562 to about 660 in 1682 (Waddell 1980:8-13). It is therefore difficult to separate discussions of Native Americans from the period of early Spanish and French exploration and settlement (1521-1670 A.D.).

The Spanish Period

The first Spanish explorations in the Carolina low country were conducted in the 1520s under the direction of Lucas Vasquez de Ayllon. Quattlebaum notes that,

> Ayllon's captain, Gordillo, spent many months exploring the Atlantic coast . . . . Unfortunately we have little record of the extent of this expedition (Quattlebaum 1956:7).

One of the few areas explored by Gordillo which can be identified with any certainty is Santa Elena (St. Helena). Apparently Port Royal Sound was entered and land fall made at Santa Elena on Santa Elena's Day, August 18, 1520. "Cape Santa Elena," according to Quattlebaum (1956:8) was probably Hilton Head (Hoffman 1984:423).

Gordillo's accounts spurred Ayllon to seek a royal commission both to explore further the land and to establish a settlement in the land called Chicora (Quattlebaum 1956:12-17). In July 1526 Ayllon set sail for Chicora with a fleet of six vessels and has been thought to have established the settlement of San Miguel del Galdape in the vicinity of Winyah Bay (Quattlebaum 1956:23). Hoffman (1984:425) has more recently suggested that the settlement was at the mouth of the Santee River (Ayllon's Jordan River). Ferguson (n.d.:1) has suggested that San Miguel was established at Santa Elena in the Port Royal area. Regardless, the colony was abandoned in the winter of 1526 with the survivors reaching Hispaniola in 1527 (Quattlebaum 1956:27).

The French, in response to increasing Spanish activity in the New World, undertook a settlement in the land of Chicora in 1562. Charlesfort was established in May 1562 under the direction of Jean Ribaut. This settlement faired no better than the earlier Spanish fort of San Miguel and was abandoned within the year (Quattlebaum 1956:42-56). Ribault was convinced that his settlement was on the Jordon River in the vicinity of Ayllon's Chicora (Hoffman 1984:432). Recent historical and archaeological studies suggest that Charlesfort was situated on Port Royal Island, probably in the vicinity of the Town of Port Royal (South 1982a). The deserted Charlesfort was burned by the Spanish in 1564 (South 1982a:1-2). A year later France's second attempt to establish their claim in the New World was thwarted by the Spanish destruction of the French Fort Caroline on the St. John's River. The massacre at Fort Caroline ended French attempts at colonization on the southeast Atlantic coast.

To protect against any future French intrusion such as Charlesfort, the Spanish proceeded to establish a major

outpost in the Beaufort area. The town of Santa Elena was built in 1566, a year after a fort was built in St. Augustine. Three sequential forts were constructed: Fort San Salvador (1566-1570), Fort San Felipe (1570-1576), and Fort San Marcos (1577-1587). In spite of Indian hostilities and periodic burning of the town and forts, the Spanish maintained this settlement until 1587 when it was finally abandoned (South 1979, 1982a, 1982b). Spanish influence, however, continued through a chain of missions spreading up the Atlantic coast from St. Augustine into Georgia. That mission activity, however, declined noticeably during the eighteenth century, primarily because of the 1702 and 1704 attacks on St. Augustine and outlying missions by South Carolina Governor James Moore (Deagan 1983:25-26, 40).

The British Proprietory Period

British influence in the New World began in the fifteenth century with the Cabot voyages, but the southern coast did not attract serious attention until King Charles II granted Carolina to the Lords Proprietors in 1663. In August 1663 William Hilton sailed from Barbados to explore the Carolina territory, spending a great deal of time in the Port Royal area (Holmgren 1959). Hilton viewed the headland, which now bears his name, noting,

> [t]he lands are laden with large, tall trees, oaks, walnuts, and bayes, except facing the sea it is most pines, tall and good. The land generally, except where the Pines grow, is a good soyl covered with black mold . . . . The Indians plant in the worst land because they cannot cut down the timber in the best, and yet have plenty of corn, pompions, water-mellons, musk-mellons (William Hilton 1664; quoted in Holmgren 1959:35).

Almost chosen for the first English colony, Hilton Head Island was passed over by Sir John Yeamans in favor of the more protected Charles Town site on the Ashley River in 1670 (Clowse 1971: 23-24; Holmgren 1959:39). The Carolina colony was part of the British mercantile system and was designed to profit the mother country by providing raw materials unavailable in England (Clowse 1971). Charleston was settled by English citizens, including a number from Barbados, and by French Huguenot refugees. Black slaves were brought into Carolina from both the Caribbean colonies and directly from Africa.

The Charleston settlement was moved from the mouth of the Ashley River to the junction of the Ashley and Cooper

rivers in 1680, but the colony was a thorough disappointment to the Proprietors. It failed to grow as expected, did not return the anticipated profit, and failed to evidence workable local government (Ferris 1968:124-125). The early economy was based almost exclusively on Indian trade, navel stores, lumber, and cattle. Rice began emerging as a money crop in the late seventeenth century, but did not markedly improve the economic wellbeing of the colony until the eighteenth century (Clowse 1971).

Meanwhile, Scottish Covenanters under Lord Cardross established Stuart's Town on Scot's Island (Port Royal) in 1684, where it existed for four years until destroyed by the Spanish. It was not until 1698 that the area was again occupied by the English. Both John Stuart and Major Robert Daniell took possession of lands on St. Helena and Port Royal islands, and on August 16, 1698 Hilton Head was included as part of a 48,000 barony granted to John Bayley (Holmgren 1959:42). The town of Beaufort was founded in 1711 although it was not immediately settled. While most of the Beaufort Indian groups were persuaded to move to Polawana Island in 1712, the Yemassee, part of the Creek Confederacy, revolted in 1715. By 1718 the Yemassee were defeated and forced southward to Spanish protection. Consequently, the Beaufort area, known as St. Helena Parish, Granville County, was for the first time safe from both the Spanish and the Indians. On December 10, 1717, Colonel John Barnwell claimed a grant of 500 acres on the northwest corner of Hilton Head (Royal Grants, volume 39, page 225). About the same time, Alexander Trench, as agent for John Bayley, son and heir of Landgrave John Bayley, began to dispose of the 48,000 acre inheritance. Holmgren notes that Trench "must have been his own best customer," for he begins to either acquire title or use much of the Bayley property (Holmgren 1959:46-47). Hilton Head eventually become known as "Trench's Island" in the mid to late eighteenth century.

In 1728 a survey of the Port Royal area was conducted by Captain John Gascoigne and Lieutenant James Cook. Gascoigne's 1729 map ("A True Copy of A Draught of the Harbour of Port Royal") based on this survey identifies "Hilton Head Island," while Francis Swaine, using the same survey, identifies Hilton Head as "Trench Island" on his 1729 "Port Royal" map. By 1777 J.F.W. Des Barres produced a map entitled "Port Royal in South Carolina," still using the 1728 Gascoigne-Cook survey, which identifies Hilton Head as "Trench's Island" (Cumming 1974).

The British Colonial Period

Although peace marked the Carolina colony, the Proprietors continued to have disputes with the populace, primarily over the colony's economic stagnation and

deterioration. In 1727 the colony's government virtually broke down when the Council and the Commons were unable to agree on legislation to provide more bills of credit (Clowse 1971:238). This, coupled with the disastrous depression of 1728, brought the colony to the brink of mob violence. Clowse notes that the "initial step toward aiding South Carolina came when the proprietors were eliminated" in 1729 (Clowse 1971:241).

While South Carolina's economic woes were far from solved by this transfer, the Crown's Board of Trade began taking steps to solve many of the problems. A new naval store law was passed in 1729 with possible advantages accruing to South Carolina. In 1730 the Parliament opened Carolina rice trade with markets in Spain and Portugal. The Board of Trade also dealt with the problem of the colony's financial solvency (Clowse 1971:245-247). Clowse notes that these changes, coupled with new land policies, "allowed the colony to go into an era of unprecedented expansion" (Clowse 1971:249). South Carolina's position was buttressed by the settlement of Georgia in 1733.

By 1730 the colony's population had risen to about 30,000 individuals, 20,000 of whom were black slaves (Clowse 1971: Table 1). The majority of these slaves were used in South Carolina's expanding rice industry. In the 1730 harvest year 48,155 barrels of rice were reported, up 15,771 barrels or 68% from the previous year (Clowse 1971:Table 3). Although rice was grown in the Beaufort area it did not become a major crop until after the Revolutionary War and it was never a significant crop on Hilton Head (Hilliard 1975). Elsewhere, however, rice monoculture shaped the social, political, and economic systems which produced and perpetuated the coastal plantation system prior to the rise of cotton culture.

Although indigo was known in the Carolina colony as early as 1669 and was being planted the following year, it was not until the 1740s that it became a major cash crop (Huneycutt 1949). While indigo was difficult to process, its success was partially due to it being complementary to rice. Honeycutt notes that planters were "able to 'dovetail' the work season of the two crops so that a single gang of slaves could cultivate both staples" (Honeycutt 1949:18). Indigo continued to be the main cash crop of South Carolina until the Revolutionary War fatally disrupted the industry.

A decade prior to the Revolutionary War, James Cook produced "A Draught of Port Royal Harbour in South Carolina" (1766) which identified 25 families on Hilton Head Island and, for the first time, showed "Fish Haul Creek." This is significant in understanding the Colonial ownership of the study tract, since most property records were destroyed either in 1864 (by the Civil War) or in 1883 (by a fire).

Colonel John Barnwell's 500 acre grant was apparently transferred to his son and daughter-in-law, John and Martha Barnwell by the senior Barnwell's will (Fish Hall Historic Marker notes on file, S.C. Department of Archives and History). John and Martha Barnwell sold the tract, described as Fish Hall, to Edward Ellis in October 1760 (Charleston County RMC, DB YY, page 245-247) (cf. Holmgren 1959: 51, 126; Peeples 1970:2). The tract appears to be the same one later owned by Mary B. Pope and operated by General Thomas Drayton.

The Federal Writers' Project notes that,

> [d]uring the Revolution General Prevost established a post here [at Beaufort] which proved very important for the British, for by means of the inland waterways in the vicinity, the Red Coats could penetrate into any part of the coastal region without fear . . ." (Federal Writer's Project 1938:7).

Holmgren (1959:55-59) notes only that skirmishes took place on Hilton Head between the island's Whigs and Tories from neighboring Daufuskie Island. During one skirmish, the Talbird house, on Skull Creek, was burned.

The Antebellum Period

While freed of Britain and her mercantilism, the new United States found its economy thoroughly disrupted. There was no longer a bounty on indigo, and in fact Britain encouraged competition from the British and French West Indies and India "to embarrass her former colonies" (Huneycutt 1949:44). As a consequence the economy shifted to tidewater rice production and cotton agriculture. Lepionka notes that "long staple cotton of the Sea Islands was of far higher value than the common variety (69 cents a pound compared to 15 cents a pound in the 1830's) and this became the major cash crop of the coastal islands" (Lepionka et al. 1983:20). It was cotton, in the Beaufort area, that brought a full establishment of the plantation economy. Lepionka concisely states,

> [t]he cities of Charlestown and Savannah and numerous smaller towns such as Beaufort and Georgetown were supported in their considerable splendor on this wealth . . . . An aristocratic planter class was created, but was based on the essential labor of black slavery without which the plantation economy could not function. Consequently, the demographic pattern of a black majority first

> established in colonial times was reinforced (Lepionka et al. 1983:21).

Holmgren (1959) and Peeples (1970) provide antebellum accounts of Hilton Head Island which emphasize the geneology and land ownership of the period. Hilton Head was quickly settled in the late eighteenth century and by the mid-nineteenth century the island was largely owned by the Baynard, Chaplin, Drayton, Elliott, Fickling, Gardner, Graham, Jenkins, Kirk, Lawton, Mathew, Seabrook, Scott, Stoney, and Stuart families (Holmgren 1959:67). Peeples (1970) identifies 25 plantations by name on Hilton Head.

Mills, in 1826, provides a thorough commentary on the Beaufort District noting that,

> Beaufort is admirably situated for commerce, possessing one of the finest ports and spacious harbors in the world . . . . There is no district in the state, either better watered, of more extended navigation, or possessing a larger portion of rich land, than Beaufort: more than one half of the territory is rich swamp land, capable of being improved so as to yield abundantly (Mills 1826:367).

He described the town of Beaufort as the principal (and probably only) town, and in a moment of ironic foresight he states that while the port had been examined for use as a naval depot, "the only objection to its adoption for this purpose is the great expense of fortifying it so as to be secure from the approach of an enemy" (Mills 1826:368).

Describing the Beaufort islands, Mills comments that they were "beautiful to the eye, rich in production, and withal salubrious" (Mills 1826:372). Land prices ranged from $60 an acre for the best, $30 for "second quality," and as low as 25 cents for the "inferior" lands. Grain and sugarcane were cultivated in small quantities for home use while,

> [t]he principal attention of the planter is . . . devoted to the cultivation of cotton and rice, especially the former. The sea islands, or salt water lands, yield cotton of the finest staple, which commands the highest price in market; it has been no uncommon circumstance for such cotton to bring $1 a pound. In favorable seasons, or particular spots, nearly 300 weight has been raised from an acre, and an active field hand can cultivate upwards of four acres, exclusive of one acre and half of corn and

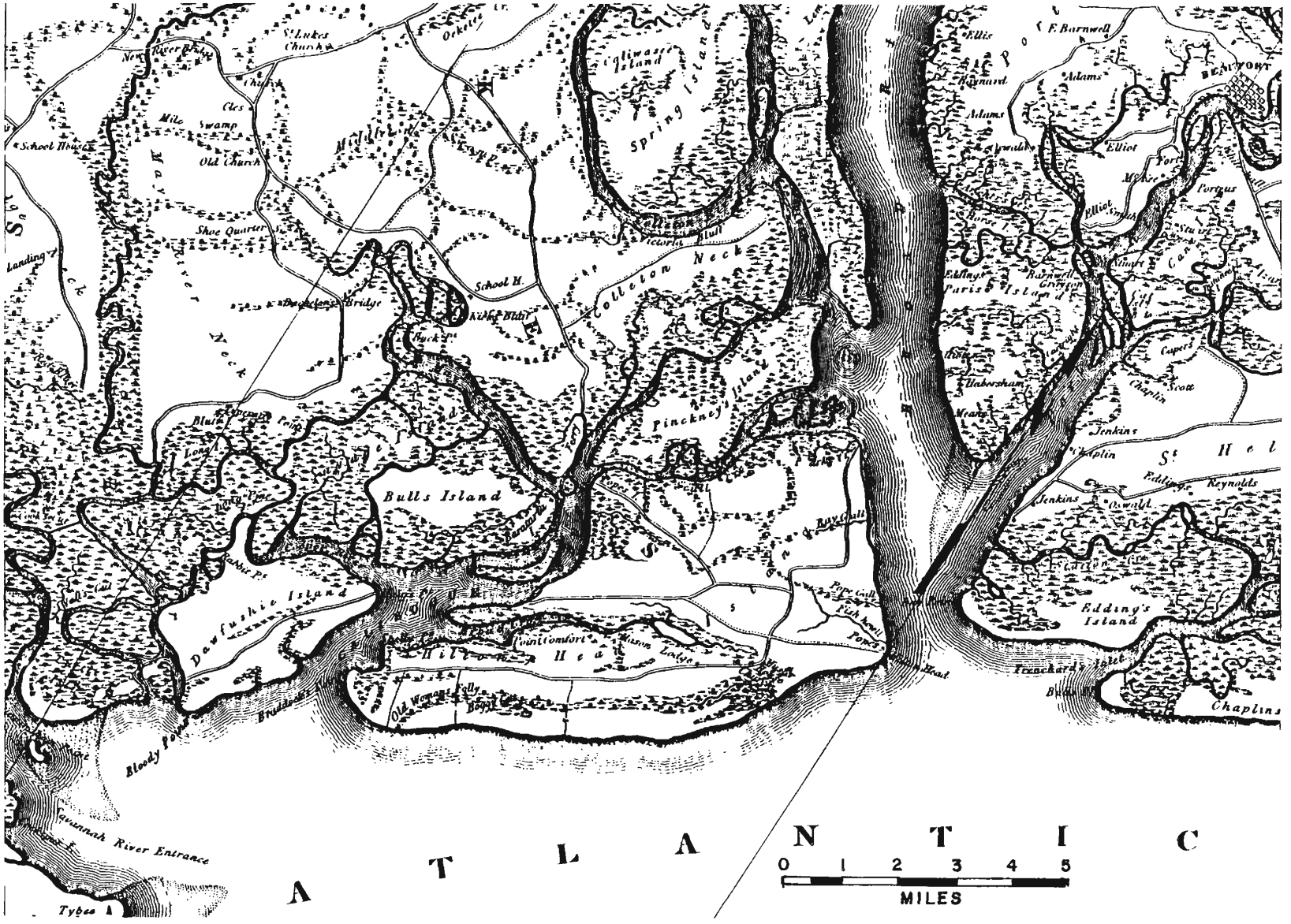


Figure 12. A portion of the Beaufort District in 1825 (from Mills' Atlas of 1825).

ground provisions (Mills 1826:368).

The emphasis of Beaufort District's agriculture can be easily observed by reference to Hilliard (1984). During the antebellum period Beaufort's wheat production remained below one bushel per capita and less than 15 bushels per square mile. Corn production fell from 20 to 30 bushels per capita in 1840, although corn production remained above 250 bushels per square mile for most of the district throughout the period. Less than 10,000 pounds of tobacco were grown in the District in 1860 and less than 100 hogheads of sugar cane were produced. Sweet potatoes were the largest non-cash crop grown.

Reference to the 1860 agricultural census reveals that of the 891,228 acres of farmland, 274,015 (30.7%) were improved. In contrast, only 28% of the State's total farmland was improved, and only 17% of neighboring Colleton District's farm land was improved. Even in wealthy Charleston District only 17.8% of the farm land was improved (Kennedy 1864:128-129). The cash value of Beaufort farms was $9,900,652, while the state average by county was only $4,655,083. The value of Beaufort farms was greater than any other district in the state for that year, and only Georgetown listed a greater cash value of farming implements and machinery ($616,774 compared to Beaufort's $559,934).

Beaufort ranked thirteenth in the number of horses (3,169), eighth in the number of asses and mules (2,405), first in number of milk cows (12,317), first in the number of working oxen (2,330), third in the number of other cattle (19,496), fourth in the number of sheep (14,139), but twentieth in the number of swine (25,369). Overall, Beaufort ranked fourth in total value of livestock ($1,254,608). Beaufort produced only 1.3% of the State's wheat crop, 2.1% of the rye crop, 4.1% of the corn crop, 1.1% of the oat crop,, 6.0% of the pea and bean crop, and 12.9% of the sweet potato crop. It did, however produce 19,121 (400 pounds) bales of cotton, virtually all long staple, in 1860 (5.4% of the State's total of all cotton), 18,790,918 pounds of rice (16.6% of the State's total) and 6,767 gallons of cane molasses (44.7% of the State's total). It also ranked eighth in the value of its orchard products (Kennedy 1864:346347).

This record of wealth and prosperity is tempered by the realization that it was based on the racial imbalance typical of Southern slavery. In 1820 there were 32,199 people enumerated in Beaufort, 84.9% of which were black (Mills 1826:372). While the 1850 population had risen to 38,805, the racial breakdown had changed little, with 84.7% being black (83.2% were slaves). Thus, while the statewide ratio of free white to black slave was 1:1.4, the Beaufort ratio was 1:5.4 (DeBow 1853:338).

One of the successful Beaufort Distric planters on the eve of the Civil War was Thomas F. Drayton. Drayton married Catherine Emma Pope, the only daughter of John Edward and Mary Baynard Pope, on February 28, 1838. Drayton apparently left his Blufton plantation (Rephaim) at that time, although he continued to plant it, and resided with his wife at her mother's plantation known as Fish Hall. When Mary B. Pope died about 1856, Drayton was named administrator of her estate and continued to operate Fish Hall in trust for seven minor children: Jonathan Edward Drayton, Anna M. Drayton, William S. Drayton, Mary E. Drayton, Percival Drayton, Emma G. Drayton, and Thomas F. Drayton (Reynolds and Faunt 1964:208; Fish Hall Historic Marker notes on file, S.C. Department of Archives and History). The 1860 slave census lists the 52 slaves of "Thomas F. Drayton, in trust for 7 minors" separate from his own 113 slaves at his Bluffton plantation. Although the sexes are about evenly divided at Fish Haul (26 males, 25 females), there are nearly three times as many female children (11 under the age of 14) as male children (four under the age of 14). There are also three times as many males over the age of 50 (6) than females over 50 years old (2). Whether this demographic pattern is intentional is not known. Examination of Drayton's Bluffton plantation reveals that while there continues to be more "old" males than "old" females, there are more prime age females (36) than males (26) and that there are more young (under 14 years) black males (19) than females (15) (National Archives 1967:20-21).

An examination of the 1860 agricultural schedule provides information on both Fish Hall, listed under Thomas F. Drayton, Agent, and Rephaim, listed under Drayton's name alone (U.S. Census Agricultural Schedule 1860:281-282). Fish Hall contained 250 improved acres and 450 unimproved acres (41.4% is improved, above the averages of both the district and Bluffton and Savannah post office area of St. Luke's Parish). In contrast, of the 4550 acres of Rephaim Plantation, only 11.8% were improved. Fish Hall was valued at $10,000, over $14 per acre, while Rephaim was valued at $25,000, just under $5.50 per acre. This difference may reflect the greater extent of developed acreage at Fish Hall. Both plantations had twice the area average of farming implement value ($2,000 at Fish Hall and $2,600 at Rephaim, compared to an average of $1,016). Fish Haul, however, had no milk cows, no oxen, no cattle, no sheep, and no swine. Its entire $800 value of livestock included four horses and two mules. In this respect it is quite atypical, while Rephaim approximates the norm in each category.

The crops produced at Fish Hall in 1860 included corn (500 bushels), cotton (25 bales), peas and beans (100 bushels), sweet potatoes (2000 bushels), and hay. In contrast, Rephaim produced these crops as well as oats, rice,

and Irish potatoes. Fish Hall did list $100 worth of orchard crops. Compared to Rephaim, which was diversified and contained a quantity of acreage in reserve, Fish Hall was clearly oriented to cotton production, with small quantities of grain and sweet potatoes raised for local use.

The Civil War, Hilton Head, and The Evolution of Mitchelville

The choice having been made to attack the Confederacy in the deep South, a Union fleet of about 60 ships and 20,000 men sailed from Fortress Monroe at Hampton Roads, Virginia on October 29, 1861 and arrived off the coast of Beaufort on November 3 through 5. The naval contingent was under the command of Admiral S.F. DuPont and the Expeditionary Corps troops were under the direction of General T.W. Sherman. The attack of the Confederate Forts Walker (on Hilton Head) and Beauregard (at Bay Point on St. Phillips Island) began about 10:00 a.m. on Thursday, November 7 (Figure 13). By 3:00 p.m. the Union fleet had fired between 2,000 and 3,000 shots at the two forts and the Confederate forces had retreated from both forts, moving inland (Scott 1882:1:6:186-187; Bombardment and Capture of Forts Beauregard and Walker, Port Royal, S.C. 1861).

This event had a significant impact not only on the morale of the South and local Confederates, but also on the black slaves. Nichols noted,

> [t]he evidence of the cannonading were manifest all about them, and the negroes, when questioned as to its effects on them, declared that at first they didn't mind the firing, but "when them rotten shot began to splatter about them, they jes' ran for de woods" (Nichols 1886:70).

Slave narratives clearly reveal the impact of this event. Sam Mitchel, at the age of 87, remembered the event vividly,

> Maussa had nine children, six boy been in Rebel army. Dat Wednesday in November w'en gun fust shoot to Bay Pint (Point) I t'ought it been t'under rolling, but day ain't no cloud. My mother say, "son, dat ain't no t'under, dat Yankee come to gib you Freedom." I been so glad, I jump up and down and run. My father been splitting rail and Maussa come from Beaufort in de carrage and tear by him yelling for de driver. He told de driver to git his eight-oar

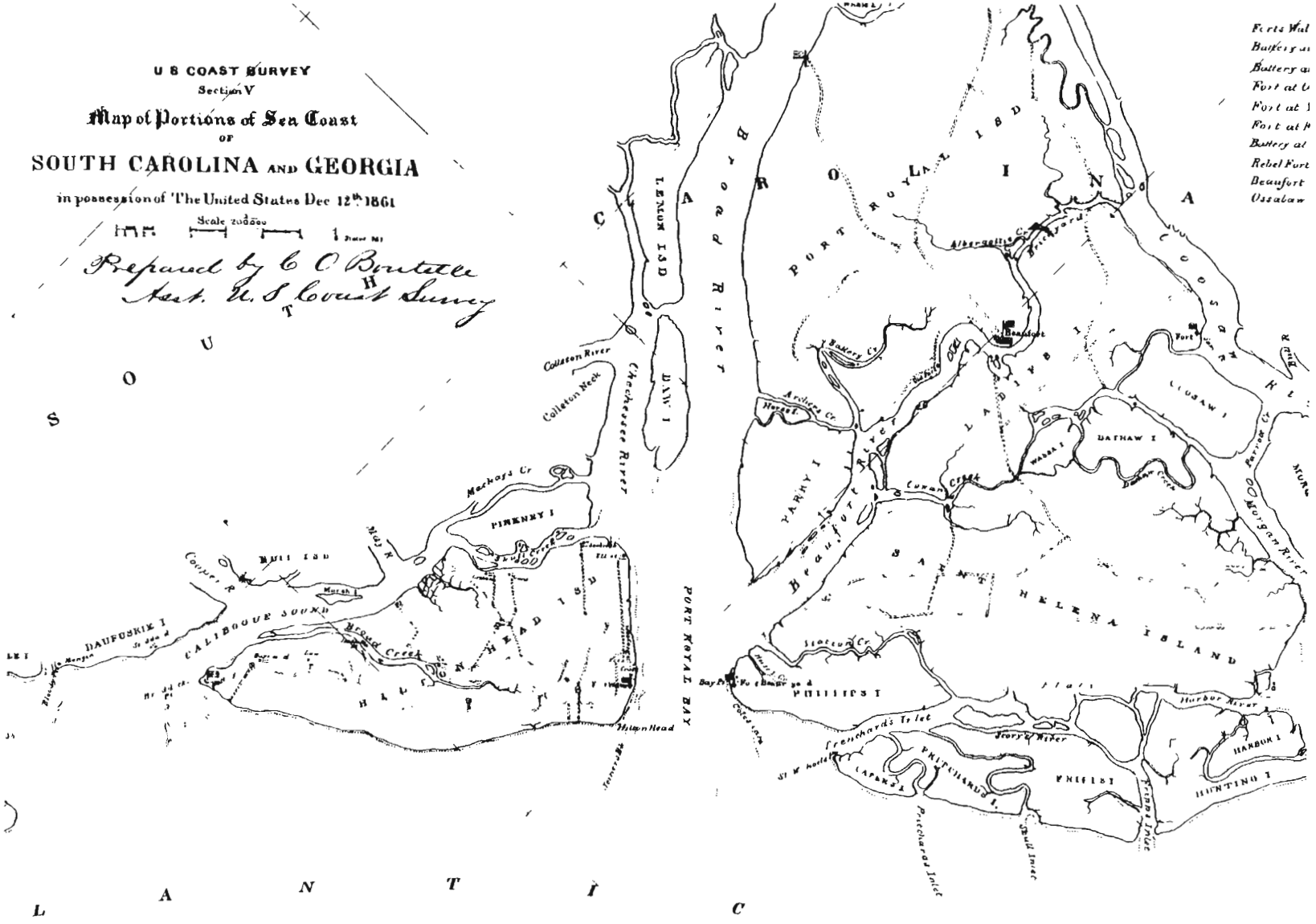


Figure 13. Hilton Head and vicinity in December 1861.

> boat name Tarrify and carry him to Charleston. My father he run to his house and tell my mother what Maussa say. My mother say, "You ain't gonna row no boat to Charleston, you go out dat back door and keep a-going." So my father he did so and when day git 'nuf nigger to row boat and Maussa and his family go right away to Charleston (Rawick 1972:3:202-203).

Sam Polite, at the age of 93, remembered, "[w]'en gun shoot on Bay Pint (Bay Point) for freedom, I been sebenteen year old wuking slobe" (Rawick 1972:3:371), while 96 year old Lecretia Heyward said "[w]'en gun fust shoot on Hilton Head Island, I been 22 year old" (Rawick 1972:2:279).

The first Union troops which landed on the island met no resistance, but rather found,

> [w]hat dreadful havoc our shells had made; the sight beggars description. The dead and wounded lay in heaps, and the air resounded with groans and petitions for help . . . . Every building near the fort was riddled by our shells, while the tents were torn into shreads . . . . Many of the dead were literally torn to atoms, and some were half buried where they fell (Cadwell 1875:26-27).

Several events followed in quick succession. A number of reconnaissance parties (both official and unofficial) began to scout the island and appropriate a variety of items. Contacts were made with a number of black settlements, and some began to be attracted to the Union encampments. The Union began to build up the fortifications of Hilton Head, eventually transforming a vulnerable position into a major military supply depot and the Department of the South, from which Savannah and Charleston were blockaded. These events are discussed in regimental histories, official records and correspondence, and in period accounts. Frequently these sources fail to agree on significant issues, such as the extent of and persons responsible for looting. It appears military discipline was sufficiently lax that both Union and Confederate troops had ample opportunity to loot, but the victors have tended to attract the bulk of the attention. Looting by slaves was most violent in the urban area of Beaufort. On the more rural islands such as Hilton Head it is likely that looting by blacks of plantation houses was

rather minimal, particularly compared to what the retreating and advancing armies did.

A number of sources comment on the large quantity of materials left behind by the Confederates. Cadwell says simply that "knapsacks, blankets and rifles lay in confusion all around and were found at almost every step for miles though the woods "(Cadwell 1875:20). Eldridge describes the same scene,

> Capt. Gillmore . . . made a reconnaissance of Hilton Head Island with escort of Seventh Connecticut . . . and proceeded first to Seabrook, six miles across the island . . . . without seeing any enemy or even a white man . . . There were found on the road, knapsacks, haversacks, canteens, cartridge boxes, etc., scattered all along the road and on the wharf at Seabrook . . . . There were also found near the landing fifteen to eighteen large wagon loads of bacon, hard bread, sugar, rice, corn, vinegar, etc. (Eldridge 1893:67).

Two accounts provide evidence of the significance of this situation. Tourtellotte mentions that these discards of equipment and clothing attracted the attention of the blacks who "had carefully culled over and hid away such articles as suited their fancy" (Tourtellotte 1910:17). Todd mentions that the Union troops did the same thing,

> our heavy uniform jackets and woolen pantaloons were laid aside, for the lighter clothing so considerately left behind by the enemy (Todd 1886:99).

Thus, early in the conflict the blacks on Hilton Head began to have access to a variety of military goods.

Within four days General Sherman issued General Order 24 concerning the various activities of the Union troops. The order said, in part,

> [t]he general commanding is pained to know that some of the troops of his command have, without orders, invaded the premises of private individuals and committed gross depredations upon their property . . . . All horses,

> cattle, and other private property which have been taken off any of the plantations and now in the hands of officers or soldiers, will be immediately surrendered to the chief quartermaster . . . (Scott 1882:1:6:187).

The actions to which General Sherman made reference are described by several authorities, including Palmer,

> [s]couting parties were sent out over the island and they captured horses, mules, chickens, pigs, and about everything they could lay their hands on, and divided the "eatables" between the different companies. That, however, was not considered "stealing" but "confiscating" (Palmer 1885:20).

Likewise, Eldridge comments on the order, saying, "[General Sherman] couldn't object to a soldier having a mule" (Eldridge 1893:72). But perhaps the most candid statement comes from Todd,

> [g]eese, turkeys, pigs and chickens were killed and eaten whenever we wanted them. At first we paid the darkies for these, but on thinking the matter over - when our cash began to run short - we came to the conclusion that that would never do: these things did not belong to the negroes but their masters; their masters were the enemies of the government, and had run away, leaving their property behind; by all the rules of war the abandoned property belonged to the victors - to us; so whenever we wanted anything after that, the darkies would be ordered to kill and cook and we paid them for their labor, as long as our money lasted (Todd 1886:104-105).

This account, besides providing insight on the racial attitudes and ethics of some Union soldiers, also provides evidence for the black's introduction to a developing wage economy.

The extent to which the blacks participated in the looting, as previously mentioned, is disputed by period accounts. Todd states that on St. Helena, "nothing appeared to be disturbed, the darkies being under strict discipline not having entered their masters' houses" (Todd 1886:101; a similar view is presented by The War for the Union 1861), while Walkley observed that, "[t]he owners of the plantations had fled precipitately, abandoning much property which such negroes as had contrived to remain on the island were looting without restraint" (Walkley 1905:29; see also the 1861 account of black looting in Blassingame 1977:360). One of the best authorities, Edward Pierce, reported in February 1862 that,

> [i]t is reported that they [the slaves] have taken things left in their masters' houses . . . it is not true that they have, except as to very simple articles, as soap or dishes, generally availed themselves of such property (Moore 1866:308).

It may be that the blacks only looted once this activity was given an air of respectability by the maurading Union troops. This is implied by Forten, who wrote, "[t]he masters, in their hasty flight from the islands, left nearly all their furniture; but much of it was destroyed or taken by the soldiers who came first, and what they left was removed by the [black] people to their own houses" (Forten 1864:590). It is only concerning Beaufort that virtually all authorities agree the blacks looted (see Rose 1964:106-108). Davis, writing a year after the war, comments that, "[t]he negroes commenced the pillage before the army arrived, and when it landed the victorious heroes were received by wenches dressed in silks and satins that had adorned the beautiful forms of Carolina's fairest daughters" (Davis 1866:184).

Blacks, within two days of the Union victory, began descending on the outpost. A number of regimental histories provide colorful accounts, such as Copp, who states,

> negro slaves came flocking into our camp by the hundreds, escaping from their masters when they knew of the landing of "Linkum sojers," as they called us . . . many of them with no other clothing than gunny-sacks. . . . These people were loaded down with all sorts of household goods, carrying everything describable upon their heads, bedding, furniture, and across their backs, bags holding anything and everything, sweet potatoes ,

> chickens and small pigs, the big negroes sometimes having on their heads an inverted table, and piled up upon this was a small tray load of other goods (Copp 1911:74-77; see also Palmer 1885:20 for a similar account).

The clearest accounts, however, come from General Sherman, who periodically wrote Washington asking for assistance. The absence of any government policy concerning the "contraband negroes" was to plague the Lincoln administration for several years. The first mention of the contraband came on November 9, when Captain Saxton, Assistant Quartermaster, remarked that they were coming into the Union lines "in great numbers." He noted that since the landing two days previous "150 have come in, mostly able-bodied men, and it will soon be necessary to furnish them with coarse clothing" (Scott 1882:1:6:187). Sherman, writing on December 10, 1861, remarked that,

> the negroes have rendered us but little assistance. Many come in and run off . . . The large families they bring with them make a great many useless mouths. Before long - after they have consumed all they have on the plantations - they will come in in greater numbers . . . They are a most prolific race (Scott 1882:1:6:202).

Again on December 15, he wrote,

> 320 have thus far come in and offered their services. Of these the quartermaster has but about 60 able-bodied male hands, the rest being decrepit, and women and children. Several of the 320 have run off. Every inducement has been held out to them to come in and labor for wages . . . . The reasons for this apparent failure thus far appear to be these: 1st. They are naturally slothful and indolent . . . 2nd. They . . . are unsettled to any plan. 3rd. Their present ease and comfort on the plantations, as long as their provisions will last, will induce most of them to remain there . . . It is really a question for the

> government to decide what is to be done with the contrabands (Scott 1882:1:6:205).

Sherman repeats his pleas again on January 15, 1862, mentioning "I would also suggest that a quantity of negro clothing be sent out here as soon as practicable, and this should include stuff for women's and children's wear" (Scott 1882:1:6:218), and February 9, 1862.

From these earliest days the relations between black and white were strained. Ample evidence of this situation is provided by a number of period accounts. Linehan (1895) remark that many troops felt jealous of the attention the blacks received and had "hardly arrived at the conclusion that a negro was as good as a white man" (Linehan 1895:346). Roe (1907:180), Price (1875:148) and Davis (1866:189) describe assaults on blacks and the burning of several of their structures. Tourtellotte comments that the enlisted troops "did not relish bending to hard labor while the husky contrabands were strolling about the island picking up saleable articles to barter with the soldiers" (Tourtellotte 1910:19). Officially the Department of the South did not condone these practices, as evidenced by General Order 27 issued August 17, 1862,

> [n]umerous acts of pilfering from the negroes have taken place in the neighborhood of Beaufort, committed by men wearing the uniform of the United States. I cannot and will not call them soldiers (Scott 1885:1:14:376).

One of the most disturbing events surrounding the Government's attitude and actions toward the blacks is recounted by Beecher from early in the Federal occupation,

> [the contraband] were fast becoming a burden and a nuisance. They were asked to volunteer to work . . . but the majority preferred to stay in Beaufort, feeding on Government rations, . . . to working. Some . . . were taken and forced to work. A rumor that they were all going to be ordered to Hilton Head . . . as workmen . . . caused them to flee to the woods and swamp,where they would stay during the day, sneaking back to the city at night. The authorities resolved to put a stop to this, and so a

> plan to catch them was devised. One night after 12 o'clock, when it was supposed that all the darkies had left the woods and swamps and entered the city, Beaufort was surrounded and a raid made for darkies by a detail of soldiers. . . . It was a regular nigger hunt. . . . All were dragged out. . . . Next morning all the able bodied men were sent to the dock. . . . When at Hilton Head the men were made to work on the fortifications (Beecher 1901: 2:231).

By September 20, 1862, General O. M. Mitchel stated,

> I find a feeling prevailing among the officers and soldiers of prejudice against the blacks, founded upon the opinion that in some way the negroes have been more favored by the Government and more privileges granted to them than to the volunteer soldier (Scott 1885:1:14:385).

Two General Orders, 122 and 130, issued on August 22 and September 6, 1864, dealt with the loitering of blacks. The first stated,

> [t]he number of idle persons, of both sexes, found loitering around the camps and Posts of the Districts of Beaufort and Hilton Head, is subverse of good order and military discipline, and is a fruitful source of vice and disease.

While the second found,

> [t]he practice of allowing negro women to wander about from one Plantation to another . . . is not only objectionable in every point of view . . . but is generally subserve of moral restraint.

Tourtellotte mentioned the presence of "some very pretty quadroon girls" on Hilton Head (Tourtelotte 1910:53) and this situation may have eventually required the military to issue General Orders 122 and 130.

In spite of all the associated problems, a number of blacks were employed by the Government. Captain H. A. Hascall, Assistant Quartermaster, reported a number of blacks were employed as carpenters, blacksmiths, and boatmen for the month of February 1862. Solomon, the only black previously belonging to Drayton listed, served as a carpenter for 19 days and was paid $8.14 ($12/month or approximately 43 cents/day). The same list indicates that white carpenters, of necessarily no greater skill, were being paid $2.00 a day. Corporal William H. Hyde, Company D of the 6th Connecticut Volunteer Regiment, had been placed in charge of the contrabands (Report of Persons and Articles Hired for February 1862, Roll of Enlisted Men Employed on Extra Duty for March 1862, South Carolina Historical Society).

Nordhoff, during a March 1863 visit to Hilton Head, found a number of blacks employed in the military or as laborers by the Quartermaster's Department, where "about one thousand able-bodied blacks are employed" for $4.00 a month plus military rations (Nordhoff 1863a:2). Pearson provides several letters which describe the work available for blacks. One such letter states, "[m]any of the men were not adverse to trying their hands at life in the world, for many of their number have been and still are at work for officers, etc. at Hilton Head . . . with most desirable pecuniary results" (Pearson 1969:41). Another visitor remarked that "the camps offered a high-priced market both for labor and the products of labor" (Anonymous 1865:17).

By February 6, 1862 Sherman, in General Order 9, requested help for the contraband ("this unfortunate and now interesting class of people") from the "highly favored and philanthropic people" of the North. Coincidental with this plea, the federal government slowly began to recognize the needs and promises of the region. As early as November 27, 1861 Sherman had been ordered by Washington "to seize all cotton and other property which may be used to our prejudice" and that "[t]he services of negroes will be used in picking, collecting, and packing the cotton" (Scott 1882:1:4:192). Secretary of the Treasury Solomon Chase appointed Colonel William H. Reynolds to collect contraband cotton and goods, although no policy had yet been devised concerning contraband negroes. By December 20, Reynolds was in Beaufort and on January 1, 1862 he wrote to Chase that, "the negroes seem very well disposed and quite well pleased with the new order of things here, most of them preferring to remain on the Plantations where they were raised, if they can receive something for their labor" (National Archives, RG 366, Port Royal Correspondence 1861-1862). Going about his business, Reynolds shipped 92 bales (30,479 pounds) of cotton north to Hiram Barney, Cotton Agent, N. Y., between January 18, 1862 and May 1, 1862 (National Archives, RG 366, Port Royal Correspondence 1861-1862). Unfortunately Reynolds kept

neither good records nor cotton seed for next year's crop. Likewise, lots of Sea Island furniture, livestock, and plantation tools were gathered up and either sent north or sold (National Archives, RG 366, Abandoned Property; RG 366, Fifth Special Agency Papers Box 299).

Chase also recognized the plea for humanitarian aid and sent Edward L. Pierce to Port Royal to look into the contraband negro situation (Rose 1964:21-23). Pierce's first report to Chase, made on February 3, 1862, reports that there were 16 plantations on Hilton Head and that there were 600 blacks at the federal encampments. Of these 600, apparently only 472 were "registered" and of those 472, 137 were on the payroll. The 472 included fugitives from the mainland (279), residents of Hilton Head (77), Pinckney Island (62), St. Helena (38), Port Royal (8), Spring (7), and Daufuskie (1). They were under the direction of two civilians, Barnard K. Lee, Jr. of Boston and J. D. McMath of Alleghany City, Pennsylvania, assigned to the Quartermaster's Department. The blacks were being paid $8-12 a month for carpentry and $4-8 a month for other labor. In addition, each individual was receiving a military ration of food, "but from the monthly pay are to be deducted rations for his family, if here, and clothing for both himself and his family" (Moore 1866:313).

Rose points out the immediate problems which arose between Reynolds and Pierce (Rose 1964:24-26) and how into this situation were introduced the "humanitarians," such as the Reverend and Mrs. Mansfield French of the American Missionary Association, a driving force in the spiritual and worldly education of the contraband. While apparently an honest individual with high ideals, no one was safe from criticism as the area was eventually transformed and by 1866 French was described as "Father French the Tycoon of all robbers" (Truman 1866; see also Rose 1964:394). Quickly Pierce and French devised a plan for the education, welfare, and employment of the blacks. A number of philanthropic individuals in the north responded to the call and this is largely the "Port Royal Experiment" of Rose's (1964) excellent study. The government contribution to this effort was originally under the direction of the Treasury Department, but was transferred to the War Department by the summer of 1862 when General Rufus Saxton was placed in charge (Rose 1964:152).

The Treasury Department, however, remained actively involved in the land policies of the "Experiment" through the actions of the Federal Tax Commissions for Beaufort -- Dr. William H. Brisbane, Judge Abram D. Smith, and Judge William W. Wording. They were responsible for collecting South Carolina's share of a direct tax of twenty million dollars to support the war effort. McGuire notes that,

> [u]nder this law Federal tax commissioners proceeded to rebellious districts falling under Union control to assess real estate on local 1860 guidelines, adding a fifty percent penalty for disloyalty. Upon the failure of Confederate owners to pay both tax and penalty, land would be forfeited to the Federal Government and sold at public auction. Elaborate redemption provisions were the act's most distinctive feature (McGuire 1985:23).

The Tax Commissioners faced a variety of challenges, not the least being an absence of tax maps and records, but by November 25, 1862 they had fixed the taxes on Hilton Head Tract No. 3 -- "Fish Hall," one of 24 plantations recognized on the island (Figure 14). The plantation was "said to be or to have been owned by General Drayton" and was thought to contain 1300 acres (National Archives, RG 217, Records of the Beaufort, S. C. Tax District, Valuation Volume). When General Drayton failed to come forward to claim the land and pay the taxes of $156.00 on the plantation valued at $5200, it was advertised for sale (Sale of Lands for Unpaid Direct Taxes in Insurrectionary Districts, State of South Carolina 1863). The property was purchased by the federal government and held until 1875 (Fish Hall Historic Marker notes on file, S. C. Department of Archives and History; Beaufort RMC Deed Book 9, pp. 254-255). The 1300 acres apparently included not only Fish Hall, but also adjacent Pine Lands.

Both Rose (1964) and McGuire (1985) should be consulted for a more thorough account of the political events surrounding the "Port Royal Experiment" and the land redistribution policies of the Tax Commissioners. Both are necessary to a full understanding of the events occurring in the Port Royal area, but the rest of this discussion will concentrate on the evolution of Mitchelville, its history, and what the primary historical records may contribute to our understanding of the Mitchelville archaeology.

The housing of the blacks pouring onto Hilton Head, as previously discussed, was a problem from the very beginning. Two approaches were eventually used to deal with the problem. The first was to establish "camps" for the blacks, such as those in operation by June 1862 at Beaufort, Hilton Head, Bay Point, and Otter Island which were built by and under the control of the Quartermaster's Department (Moore 1866:316). Blassingame (1977:360) indicates that another was built "at the mouth of Edisto Inlet" by December 1861 and

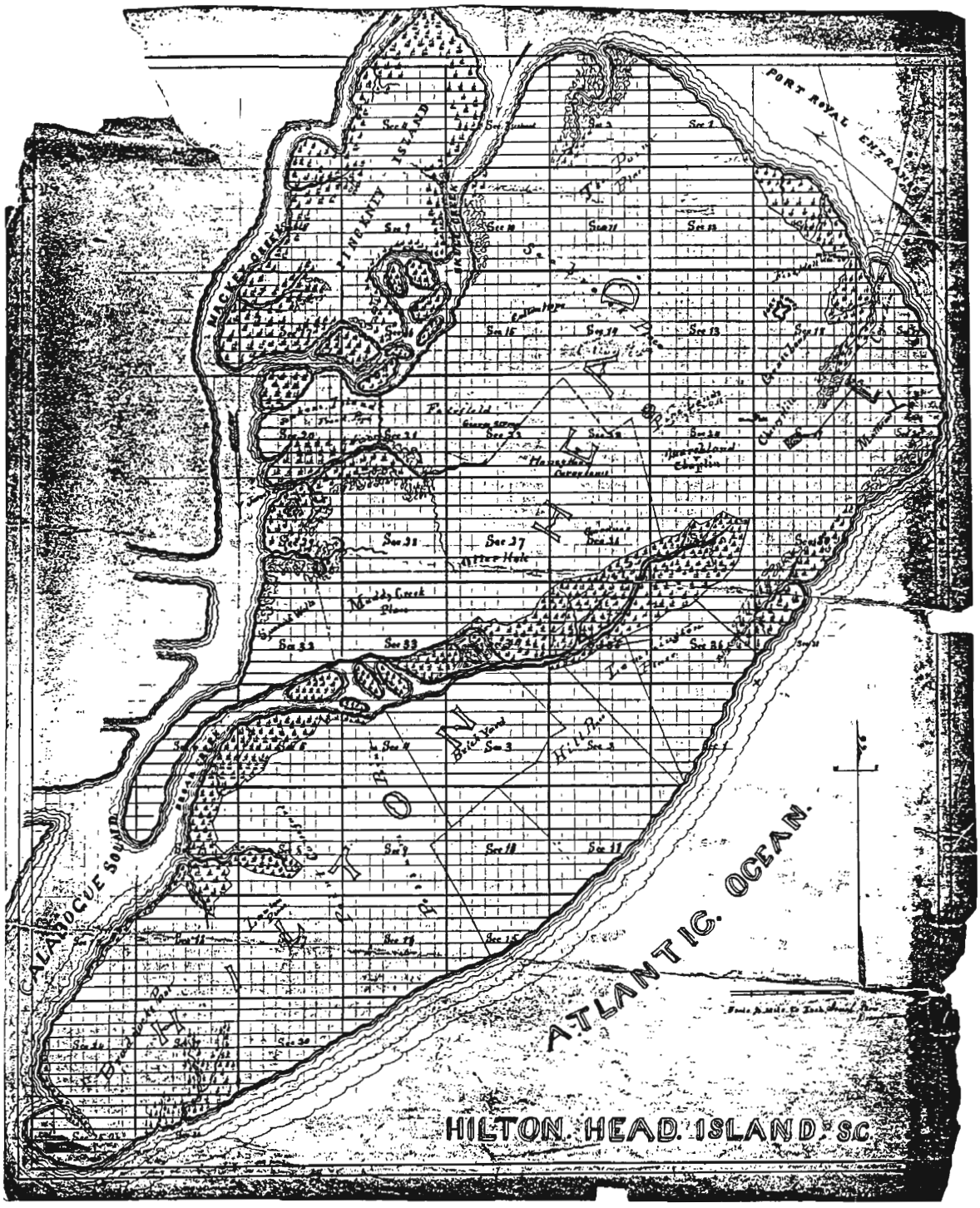


Figure 14. Hilton Head ca. 1864 (National Archives, RG 58, #15).

Botume reveals that one camp outside Beaufort was called "Montgomery District" (Botume 1968:16). These "camps" were apparently holding areas used by the government until permanent locations and jobs could be found for the blacks. They were begun early in the war and apparently continued until the last days. By 1864 the Treasury Department called such camps "Freedmen's Home Colonies," where "all freed persons within the Agency may be received" and would be provided "temporary shelter and care" (National Archives, RG 366, July 29, 1864 Rules and Regulations). The use of tents in these camps (Botume 1968:16) was quickly replaced by various structures. An anonymous visitor in 1863 reported that the Quartermaster's Department,

> is building twenty-one houses for the Edisto people, eighteen feet by fourteen, with two rooms, each provided with a swinging board window and the roof projecting a little as a protection from rain. The journeymen-carpenters are seventeen colored men, under the direction of Frank Barnwell, a freedman (Anonymous 1863:309).

Botume provides a different description for a camp "about half a mile" from Old Fort Plantation where she taught. The camp consisted of,

> a row of a dozen or more buildings. . . . Each house was divided into four rooms or compartments, and in each room was located one family of from five to fifteen persons. In each room was a large fireplace, an opening for a window with a broad board shutter, and a double row of berths built against the wall for beds. One or more low benches, and a pine table with "piggins," home-made cedar tubs, on it, completed the furniture (Botume 1968:51).

This was the approach first used on Hilton Head and by February 3, 1862 Pierce reported that, "[c]ommodious barracks have been erected for these people, and a guard protects their quarters" (Moore 1866:313). It is likely that a number of these barracks were built around the Hilton Head post as the number of blacks increased. In July of 1862 a New York Times correspondent found,

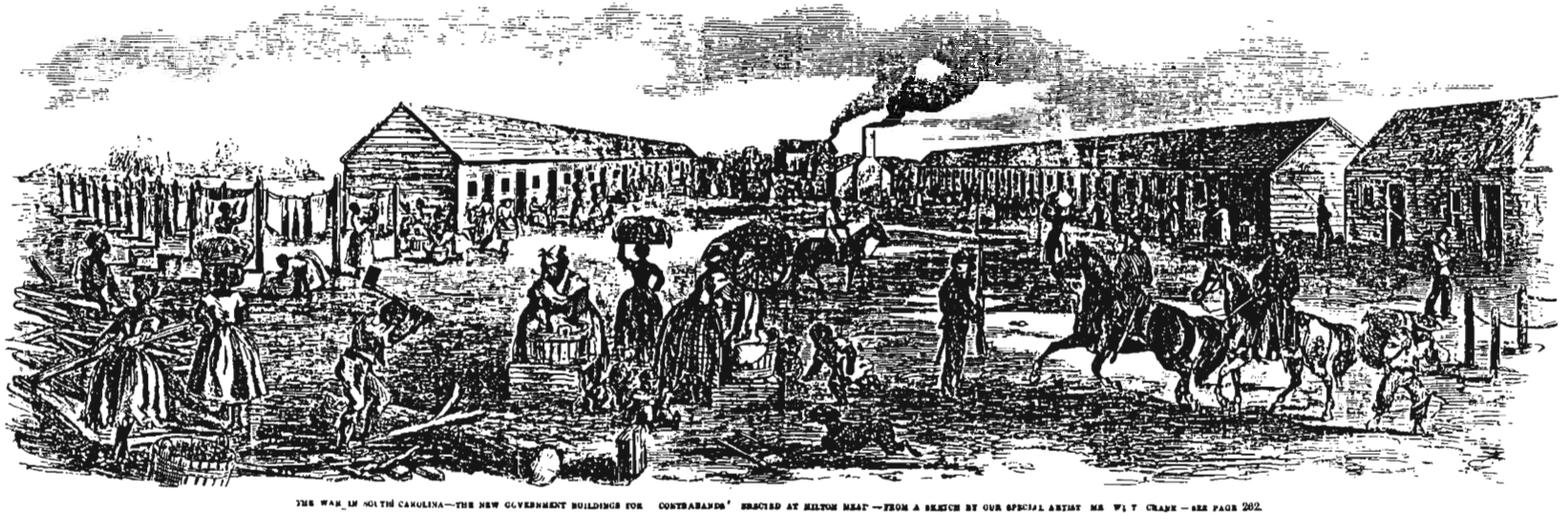
> the quarters of the contrabands outside of camp. These quarters consist of two long rows of wooden buildings, nicely whitewashed on the outside, and having much the appearance of commissary store-houses, pierced with innumerable windows for the purpose of ventilation (The Negro in South Carolina 1862).

Frank Leslie's Illustrated Newspaper describes these quarters as, "very comfortable and well ventilated, and hav[ing] the great architectural merit of being perfectly adapted to their purpose" (Government Buildings for Contrabands at Hilton Head 1862; Figure 15).

The use of barracks is not surprising since these structures were built under the supervision of the Army Quartermaster's Department. The Quartermaster's Architectural plans on file with the Cartographic Branch of National Archives reveal ready to use plans for a number of such structures, including Laundress Quarters with 1 door and a window on front which measures 25 by 169 feet (National Archives, Map 103B, Sheet 4) and Barracks with a central store which measure 25 feet 6 inches by 136 feet (National Archives, Map 103B, Sheet 3). Similar barracks were used until the end of the war for the Provost Marshal General's Guard (National Archives, Still Pictures Branch, 165-C-572), while the white laborers were also put in somewhat smaller barracks (National Archives, Still Pictures Branch, 165-C-143 and 165-C-335).

By October of 1862, however, these arrangements had proven unsatisfactory and a second approach to the housing of the contrabands was being developed. One newspaper article describes the situation,

> [t]he present negro quarters - a long row of partitions into which are crowded young and old, male and female, without respect either to quality or quantity, such has thus far been the necessity - having become a sort of Five Points, half stye, half brothel, the Major-General [O.M. Mitchel] has ordered to be removed outside [the encampments], and accordingly a piece of ground has been selected near the Drayton Plantation, about two miles off, for a negro village. The negroes



THE WAR IN SOUTH CAROLINA—THE NEW GOVERNMENT BUILDINGS FOR CONTRABANDS' ERECTED AT HILTON HEAD.—FROM A SKETCH BY OUR SPECIAL ARTIST MR. WYLY CRANE.—SEE PAGE 282.

Figure 15. A view of the contraband barracks, pre-dating Mitchelville (from Frank Leslie's Illustrated Newspaper, July 19, 1862, p. 269).

> are to be made to build their own houses, and as it is thought to be high time they should begin to learn what freedom means by experience of self-dependence, they are to be left as much as possible to themselves . . . in preparation for the advances of the army, when they will be intrusted with the entire charge of the islands. A teacher has been provided for them - since they have as yet had none upon this island - who will be paid from the Quartermaster's Department (New York Times October 8, 1862, p. 1).

A similar, though more detailed account was offered by New South several days previously,

> [s]ome wholesome changes are contemplated by the new regime [General O.M. Mitchel, who assumed command September 17, 1862], not the least of which is the removal of the negro quarters beyond the stockade . . . where they can at once have more comfort and freedom for improvement . . . . Accordingly, a spot has been selected near the Drayton Plantation for a Negro village. They are able to build their own houses, and will probably be encouraged to establish their own police under supervision of their Superintendent. A teacher, Ashbell Landon, has been appointed, to be paid from the Quartermaster's Department . . . . Mr. McMath is at present the active and efficient Superintendent of these people on the island [McMath was mentioned by Pierce, also in 1862] (The Negroes 1862).

These are the earliest accounts detailing the founding of what came to be known as Mitchelville, in honor of General Mitchel, who died on October 31, 1862, before the village was completed. It appears that there were a variety of reasons for wishing to segregate the blacks and the troops. As will

be discussed, one reason was certainly to foster self reliance and develop home rule. But other factors cannot be ignored. Previous remarks concerning the jealousy of the troops towards the blacks have been discussed, as have several indications of improper moral conduct. Not surprisingly, this problem continued to the end of the war, for Saxton in December 1864 remarked that,

> [t]he [black] women were held as the legitimate prey of lust, and as they had been taught it was a crime to resist a white man they had not learned to dare to defend their chastity. Licentiousness was widespread; the morals of old plantation life seemed revived in the army of occupation (Ainsworth and Kirkley 1900:1029).

In addition, smallpox was a constant threat, frequently breaking out among the blacks and spread by unsanitary conditions and overcrowding. As late as July 8, 1863 Special Order 431 was issued empowering L. S. Marsh, Post Sanitary Inspector, to remove all contrabands "that may reside within the Entrenchments at this Post" (National Archives, RG 393, Part 4, Entry 551, pp. 15-16).

Regardless of the reasons, it is apparent that Mitchelville was built, but not yet named, by March 1863 (Anonymous 1863:309-310). Although it is implied by several sources that this town was laid out by military order, no General or Special Order to this effect has been located. Reid (1866) offers the "main points of the military order under which Mitchelville is organized,"

> I. All lands now set apart for the colored population, near Hilton Head, are declared to constitute a village, to be known as the village of Mitchelville. Only freedmen and colored persons residing or sojourning within the territorial of said village, shall be deemed and considered inhabitants thereof.
>
> II. The village of Mitchelville shall be organized and governed as follows: Said village shall be divided into districts, as nearly equal in population as practicable, for the election of councilmen, sanitary and police regulations, and the general

government of the people residing therein.

III. The government shall consist of a supervisor and Treasurer, to be appointed by, and hold office during the pleasure of the Military Commander of the district assisted by a councilman from each council district, to be elected by the people, who shall also, at the same time, choose a Recorder and Marshal. The duties of the Recorder and Marshal shall be defined by the Council of Administration.

IV. The Supervisor and Councilmen shall constitute the Council of Administration, with the Recorder as Secretary.

V. The Council of Administration shall have power:

To pass such ordinances as it shall deem best, in relation to the following subjects: To establish schools for the education of children and other persons. To prevent and punish vagrancy, idleness and crime. To punish licentiousness, drunkenness, offences against public decency and good order, and petty violation of the rights of property and person. To require due observance of the Lord's Day. To collect fines and penalties. To punish offences against village ordinances. To settle and determine disputes concerning claims for wages, personal property, and controversies between debtor and creditor. To levy and collect taxes to defray the expenses of the village government, and for the support of schools. To lay out, regulate and clean the streets. To establish wholesale sanitary regulations for the prevention of disease. To appoint officers, places and times for the holding of elections. To

> compensate municipal officers, and to regulate all other matters affecting the well-being of the citizens, and good order of society . . . .
>
> Hilton Head Island will be divided into school districts, to conform, as nearly as practicable, to the schools as established by the Freedmen's Association. In each district there shall be elected one School Commissioner, who will be charged with supplying the wants of the schools, under the direction of the teacher thereof. Every child, between the ages of six and fifteen years, residing within the limits of such school Districts, shall attend school daily, while they are in session, exception only in cases of sickness. Where children are of a suitable age to earn a livelihood, and their services are required by their parents or guardians, and on the written order of the teacher of such school District, may be exempt from attendance, for such time as said order shall specify. And the parents and guardians will be held responsible that said children so attend school, under the penalty of being punished, at the discretion of the Council of Administration. (Reid 1866:89-91).

This identical document has been reprinted by Fleming (1960) and is quoted by Webster (1916:80).

Two further accounts offer war-time views of the town. Nordhoff reports that the town had "upwards of 100 houses" by March 20, 1863, but the village was,

> unfortunately laid out on too contracted a scale. The plot of ground assigned to each cottage is not large enough to furnish support to the owners. . . . It seemed to me, too, that the site chosen was the least fertile I saw. . . . the people are contented and industrious; I saw the women and children in every "lot," planting

> sweet potatoes, and preparing the ground for corn. I observed that wood ashes are used as manure (Nordhoff 1863a:11).

In March 1867 Captain A. P. Ketchum of the Freedmen's Bureau, estimated that it took a minimum of 10 acres of land to make a working family of four self supporting (National Archives, RG 105, Monthly Report of Lands). In 1866 Coffin provides an extensive account of the town and discussions with several of its occupants. He notes that,

> [t]he town is on a broad sandy plain, bordered by groves and thickets of live-oak, palmetto, and the coast pine. At that time there were about twenty houses, - or cabins rather, - of the rudest description, built of logs, chinked with clay brought up from the beach, roofs of long split shingles, board floors, windows with shutters, - plain board blinds, without sash or glass. Each house had a quarter of an acre of land attached. There was no paint or lime, not even whitewash, about them (Coffin 1866:231-232).

By November 1865 Mitchelville contained "about 1500 souls" (National Archives, RG 105, Monthly Report of Lands).

Mitchelville, then, was much more than a refugee camp or a holding area. It was a self-governing town with the first compulsory education law in South Carolina. The structures, unlike the previous military barracks, were built by the blacks with materials largely supplied by the military. As a consequence, the structures were likely to be more individualized and varied in construction detail. Three sources provide considerable detail concerning the architectural layout of Mitchelville. The first is a ca. 1860s map showing a portion of Hilton Head (Figure 16), including the military installations, plantations, fields, and most significantly, the street plan of Mitchelville (National Archives, RG 77, Map I 52). This map clearly shows the wide, regularly laid out streets, the fences which surround individual blocks, and the lots associated with each house. The accuracy and usefulness of this map to the archaeological investigations will be discussed in a subsequent section.

The second source are the S. C. District Tax Maps produced in 1869 (National Archives, RG 217, Records of the

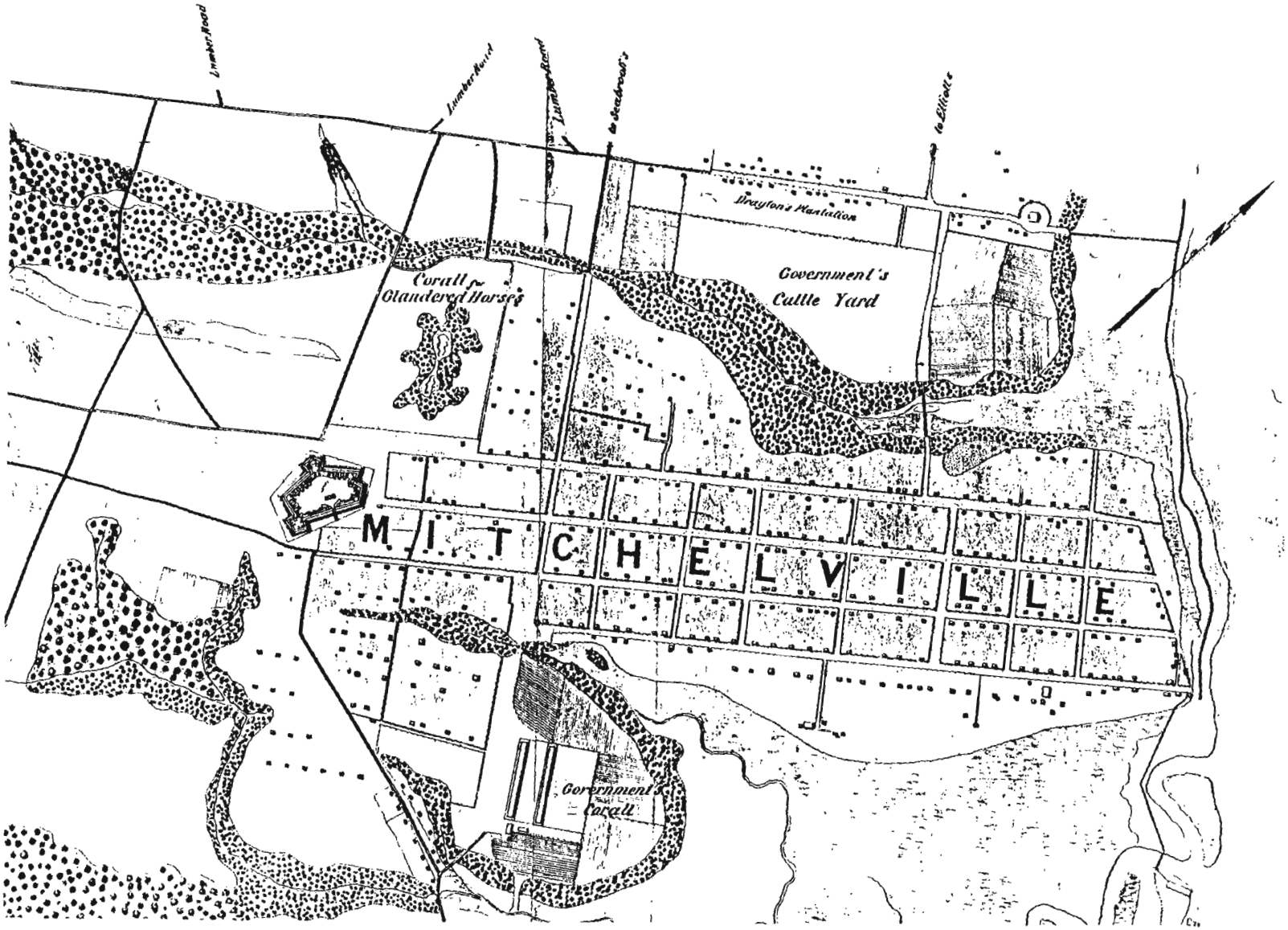


Figure 16. A portion of the ca. 1860s map of Hilton Head, showing Mitchelville (National Archives, RG 77, Map I52).

Beaufort, S. C. Tax District) and the field notes of the survey for these maps, which was conducted beginning in February 1864 (National Archives, RG 458, Field Notes for Survey Dividing St. Luke's and St. Helena). These cartographic records are very accurate, being actual township surveys (Figure 17). The field notes provide information not available on the maps themselves. For example, the Mitchelville streets were 0.54 chain wide (35.6 feet or 11 meters) and one structure, bisected by a survey line, measured 20 by 15 feet (6.2 by 4.6 meters).

The third source of information is obtained from a series of photographs taken of the Hilton Head post in 1864 by Samuel A. Cooly. Cooly frequently billed himself as "U. S. Photographer, Department of the South," probably to increase the sale of his photographs. He was at best a quasi-official photographer, being under contract with the federal government in 1864 to document the Hilton Head base. Davis (1982:2:86) notes that Cooly had permanent establishments at Hilton Head, Beaufort, and Folly Island and that his partners included Haas and Peale (Davis 1982:5:10).

These photographs offer a unique opportunity to view construction techniques, hardware, and forms at both the Hilton Head post and Mitchelville. While a few of the more important buildings on the military post were either whitewashed or probably painted, such as the Headquarters for the Provost Marshal General, others evidence worn off whitewash or paint. Most evidence only bare boards. As early as February 12, 1862 the Quartermaster at Hilton Head wrote the Quartermaster General complaining that "against my judgement the General Hospital has been ordered painted - this will require an immense expenditure of [white] lead and other articles for painting" (National Archives, RG 92, Office of the Quartermaster General Consolidated Correspondence, Box 402). Structures had roofs of wood shingles, metal, or wood boards. Foundations include two types: round posts (some still with bark) set into the sand or posts set on a timber sill which is laid directly on the ground. While brick chimneys are seen on a number of structures, even more common were stove pipe vents. Stoves, in fact, are observed outside a cook house and also at the staff stables. At least some of these were burning coal, since several photographs show coal stockpiled. One photograph (National Archives, Still Pictures Branch, 165-C-336) also shows stacked and dumped bricks which appear to have been scavanged from other locations. Fences throughout the post are shown to be pine slabs (waste from the saw mill operations), picket, ornamental, and solid board and batten.

Turning to the "refugee quarters" in Mitchelville, there is ample evidence of individualized architecture. Four of the eight available photographs are shown in Figures 18 to

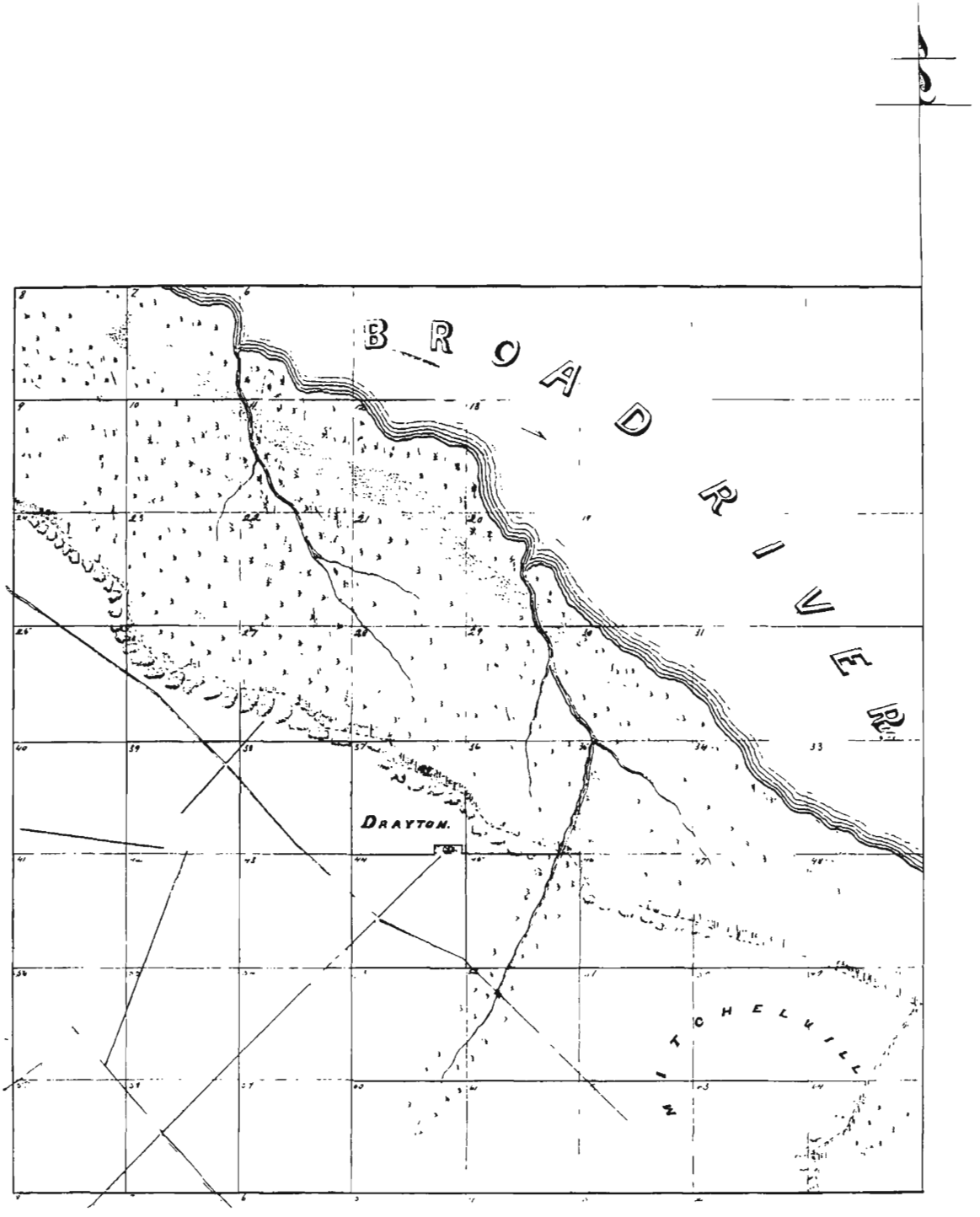


Figure 17. Section 7, Town 3 South, Range 1 West Tax District map, 1869 (National Archives, RG 217).

21. A few (such as Figure 21) show brick chimneys, but most indicate only stove pipe vents. A variety of roofing is observed, including wood shingles (Figure 21), metal (165-C-138) and bitumen paper (Figure 18). Most, though not all (Figure 21) have glass windows, although one photograph (165-C-140) shows a structure with no windows on the two visible sides. There is no organization to the architecture, design, or orientation, except that all but one are of a lapped horizontal board construction. The one exception appears to be an example of vertical lapped board-on-board construction (Figure 20). All of the structures are elevated; Figures 18 and 21 illustrate wood post piers while Figure 19 illustrates the wood sill technique. Some appear whitewashed (Figure 21), while others are obviously bare wood (Figure 18). Both front gabled and side gabled roofs are present (Figure 21), as are shed (or half-gabled) roofs (165-C-140). None have a noticeable over-hang. Figure 18 shows a lean-to addition, a common feature in the photographs. Both plank (Figure 18) and panel (Figure 19) doors are observed, but all appear to have ceramic doorknobs. There is evidence of T-hinges on shutters (Figure 21), but the doors all appear to have used butt hinges.

The yards show clean sand (Figures 18 and 19), weeds (Figure 20), and abundant trash (Figure 21). Several show barrels and tubs (Figures 18, 20, and 21) and two show articles of furniture which are well-made (Figures 20 and 21). Other photographs show the presence of a privy outhouse (165-C-140) and a windlass well (165-C-139).

There is also a photograph of the "Contraband Commissary" for October 1864 (165-C-289), which places it outside Mitchelville on the beach within the main part of the Hilton Head outpost. Likewise, the Office of the Superintendent of Contrabands was apparently located within the Hilton Head camp, not in Mitchelville (165-C-297).

While the maps and historic documents suggest a formal, well-laid out village, these photographs suggest a certain casualness which suggests that some of the regularity may have diminished as the village expanded (alternatively, the cartographers may have idealized the village layout). Lot sizes may have decreased as room was made for new arrivals. The structures evidence considerable individuality in construction and upkeep. There is little suggestion of military discipline in terms of yard upkeep and trash disposal, which supports the contention that the freedmen were largely left to their own devices in Mitchelville. There are no obvious outward indicators of status differences (the one structure which evidences a well built brick chimney lacks glazed windows). What is obvious, however, is that these structures will have left little archaeological evidence. In most respects they are clearly similar to nineteenth century antebellum slave houses (for a synopsis of

slave housing, see Genovese 1972:524-535). Dubois explains the situation by noting that,

> [i]mmediately after emancipation the Negroes began to buy land . . . . The peasant proprietors who thus arose, gradually demanded better houses. But here the anomalous situation of southern industry showed itself; there was no ideal home-making to which the better class of freedmen could look. . . . No middle class dwellings - only the Big House and the slave-pen, nothing between. The black landholder could not think of building a mansion and he therefore built a slave cabin with some few improvements (Dubois 1901a:537).

Of course there was a middle class architecture in the South, but it is unlikely that many blacks had access to it, so they built what they were most familiar with -- an improved version of the slave cabin.

There are few accounts of the activities at Mitchelville during the period from 1862 to 1867. It seems likely that the daily life of the contraband was of little consequence to the military or period observers while there was a war being fought. The New South did report the formation of the First Baptist Church in Mitchelville, with "120 members, all of whom are contrabands." Abraham Murchison, "a colored man in the employ of the Chief Quartermaster," was selected as the minister (Church Organization at Hilton Head 1862). A church, "authorized to be built near the negro quarters," was dedicated in October 1862 (Dedication of the Negro Church 1862). While it is not certain that these two churches are the same, the article suggests they are. Related to the religious well-being of the contrabands was an article reporting that "Gen. Saxton has appointed a commission, consisting of Rev. Mr. French, Rev. I. W. Brinkerhoff, and Mr. B. K. Lee, Jr., to whom all cases of domestic difficulties among the contrabands will be referred" (Divorces Among the Contrabands 1863).

Several examples are also offered of the military's economic interaction with the contraband. A February 1864 notice in the Free South announced that,

> [t]he Subsistence Department will purchase all the Potatoes, Onions, Turnips and Cabbages they may have

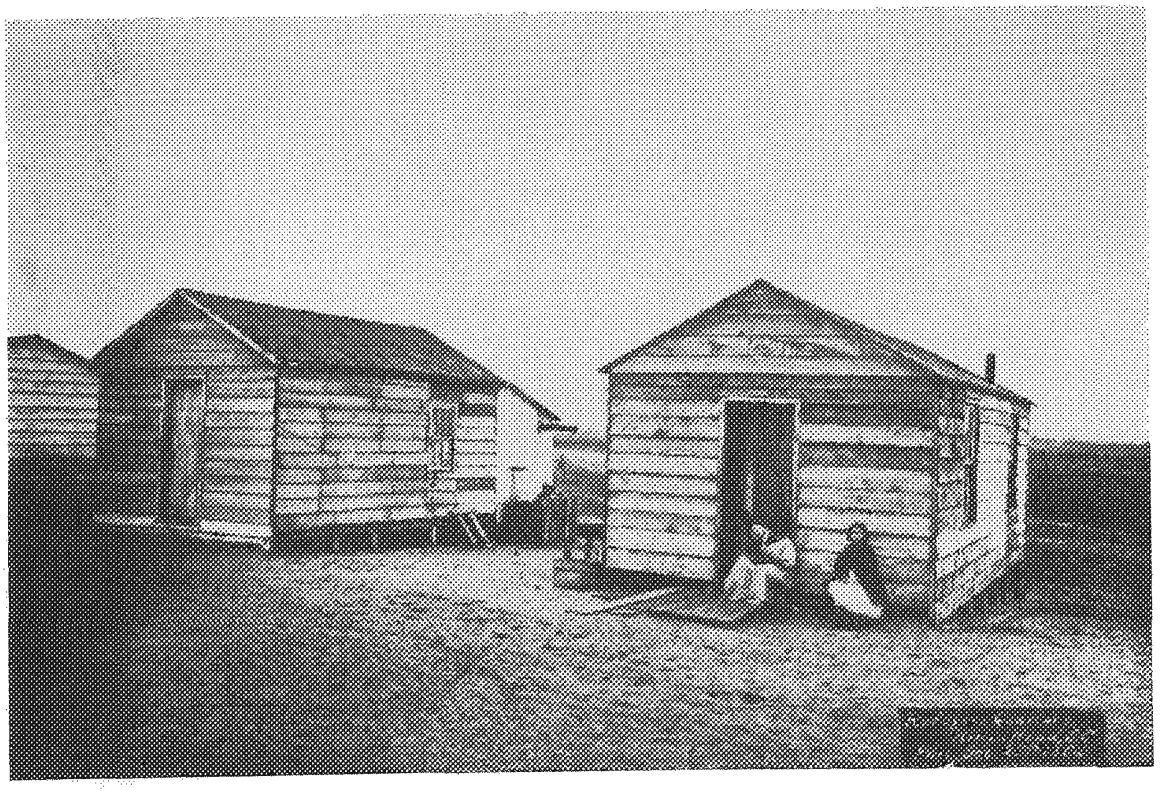


Figure 18. Refugee quarters at Mitchelville (165-C-162).

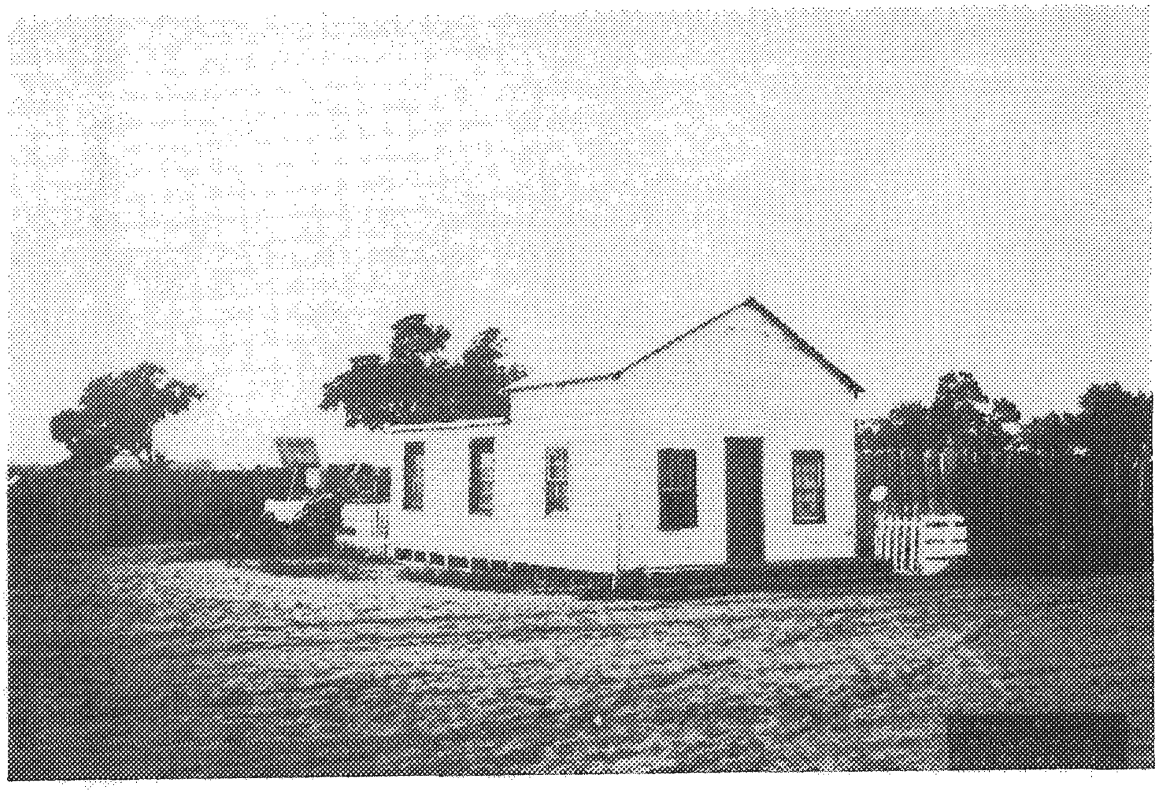


Figure 19. Refugee quarters at Mitchelville (165-C-135).

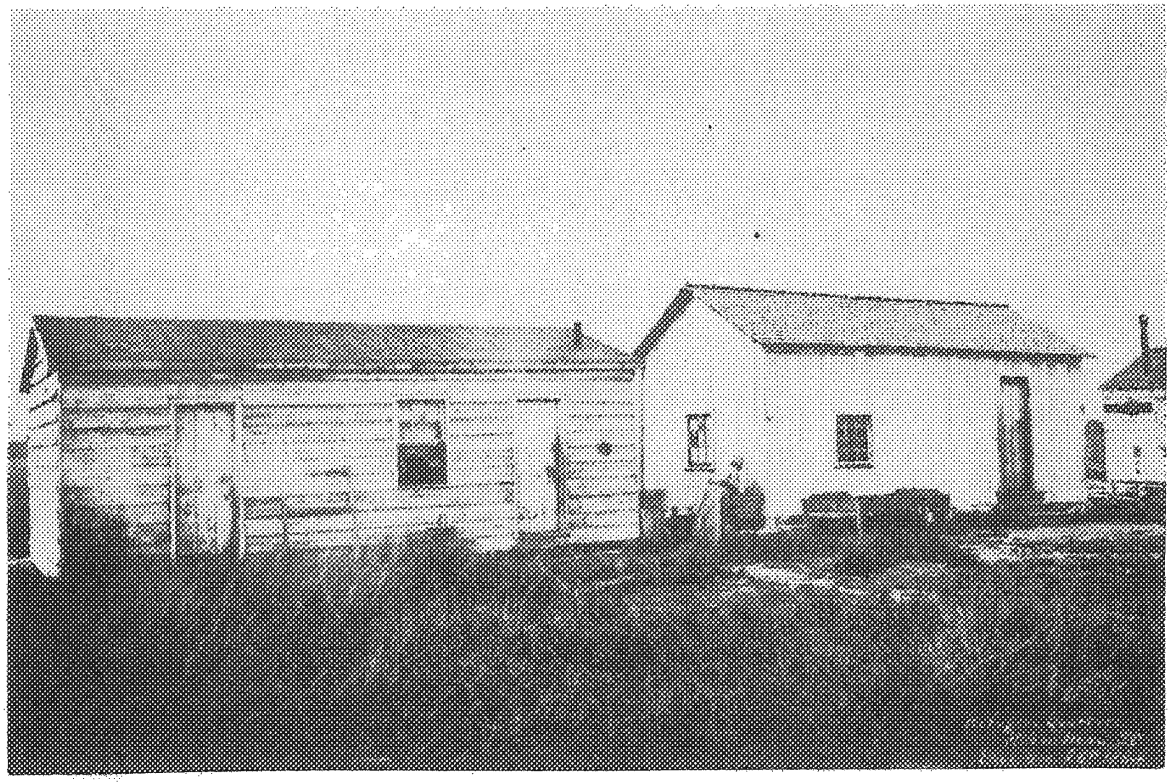


Figure 20. Refugee quarters at Mitchelville (165-C-136).

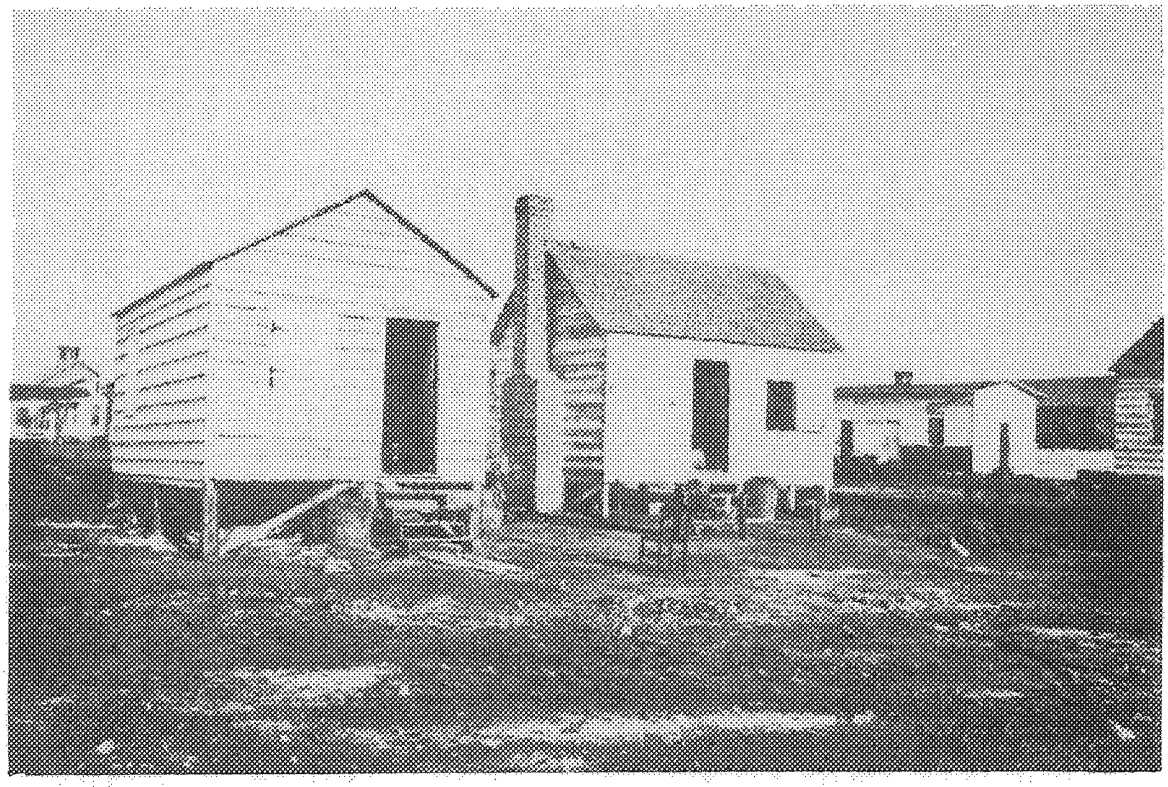


Figure 21. Refugee quarters at Mitchelville (165-C-137).

> for sale . . . (Free South, February 6, 1864, p. 2).

By August 1864 the military had ordered that all produce for sale had to be first offered at the Pilot's Wharf Market from 5:00 to 11:00 A.M. and that only after those hours could the unsold items be offered in the camps, streets and private dwellings at the established (but unspecified) prices (New South, August 6, 1864, p. 3).

While the military operated a commissary, probably to dispense rations to those that were eligible (see Ainsworth and Kirkley 1900:3:4:44-450), a number of trading stores were authorized to operate on various plantations. Of special interest are those that operated in Mitchelville. Fortunately all such posts had to possess a permit from a Special Agent for the Treasury Department, so there is good evidence for at least four and possibly five supply or trading stores operating within Mitchelville (National Archives RG 366, Boxes 303-304).

An application was made by Dumont R. Carey on March 31, 1865 and there is some evidence that he operated at least through May 1865. August Lambert of Hilton Head was granted authority for a supply store stocking up to $4000 of goods per month on September 13, 1864, but the authority was revoked on October 6, 1864 at the request of Major General Foster. There is one invoice of goods shipped to Lambert in Mitchelville prior to his authority being revoked. The items he offered for sale included rice, flour, cheese, lard, sugar crackers, soda crackers, snap crackers, grits, matches, smoking tobacco, candles, pepper, allspice, and a cask of ham, for a total value of $628.64.

Thomas and Dixon suffered the same fate as Lambert. Granted authority on October 11, 1864, their permit for a store stocking up to $1000 of goods per month was revoked on November 1, 1864. Chauncey G. Robbins of Beaufort and his two partners from New York first applied to establish a trade store at Mitchelville on May 6, 1864 and provided a bond on May 29, 1864. No evidence was found, however, that Robbins ever opened a store.

The best information comes from the operation of William G. Tackaberry and Henry A. Ely, both of Beaufort, who applied to operate a store on December 1, 1864. Ely and Tackaberry anticipated offering merchandise worth no more than $1000 per month and were in business at least through April 1865. A series of seven invoices for this concern have been found. They offered a wide range of kitchen goods for sale, including coffee pots, quart cups, tea pots, oval pans, dish pans, buckets, tin pie plates, sauce pans, tablespoons, teaspoons, basters, fry pans, knives, stamped dippers, flesh forks, egg whips, bread pans, corn square pans, shovels, tin

plates, tea kettles, coffee boilers, pails, brooms, tubs, wash boards, brushes, hand scrubs, whisks, baskets, sieves, roll pins, oven mats, fish sines and cord. Clothing and personal items included shirts, drawers, suspenders, a variety of cloth (such as prints, gingham, red flannel, and cotton), blue shirting, cologne, pomade, spectacles, fine hair combs, head nets, silk belts, hair pins, pencils, worsted braid, bead necklaces, watch keys, arm corsets, leather belts, thimbles, brace horn buttons, white bonnets, pearl shirt buttons, white agate buttons, coral buttons, Darling coat and vest buttons, plantation buttons, shoe laces, and collars. Food and grocery items included condensed milk, navy tobacco, Kentucky leaf tobacco, hams, dried apples, dried peaches, dried pineapples, dried tomatoes, telegraph matches, pipes, flour, hominey, sugar crackers, soda crackers, syrup, butter, lard, sugar, rice, coffee, starch, and soap.

While at first the destitute blacks were probably forced to wear discarded, donated, or bartered military clothing because the Union invasion occurred before their winter clothing allotment, it is obvious that other clothing was in demand (see Botume 1968:32, 54, and The Negro in South Carolina 1862 for accounts of blacks wearing and repairing military clothing; the Freedmen's Bureau continued to issue military trowsers, sack coats, cotton shirts and great coats into 1866 - National Archives, RG 105, Monthly Returns of Clothing, Camp, and Garrison Equipage, Box 78). Rose discusses the buying habits of the contraband, noting that Northerners quickly recognized "the enlarged market for Northern manufactures that will be created by an enlarged area of freedom" (James M. McKim in Rose 1964:164). In 1863 an observer noted,

> there is a great demand for plates, knives, forks, tin ware, and better clothing, including even hoop skirts. Negro cloth . . . [is] very generally rejected. But there is no article of household furniture or wearing apparel, used by persons of moderate means among us, which they will not purchase when they are allowed the opportunity of labor and earning wages (Anonymous 1863:310).

Reid states that "counters . . . are piled with heavy stacks of ready-made clothing, pieces of coarse goods, hats and the like; and the show-cases are filled with cheap jewelry, and the thousand knickknacks which captivate the negro eye" (Reid 1866:122). He goes on to note that these merchants are regulated and that "a military order has been found necessary

to curtail the extravagant profits of the traders, and protect the negroes" (Reid 1866:123). Other sources, such as Todd (1886:126) and Denison (1879:129) mention that pains had to be taken to prevent the traders from cheating the contraband; this may explain the limited operations of August Lambert and Thomas and Dixon.

Several accounts specifically mention the contraband's love of jewelry. One source states that "necklaces of glass beads were the ornaments of many, while the cheap dollar jewelry, of Connecticut manufacture, was also in demand" (The Negro in South Carolina 1862:2). Forten remarked that, "[t]hey are, however, very fond of all kinds of jewelry" and that earrings were common, even among the children (Forten 1864:592).

There was apparently only one type of goods which the blacks had difficulty purchasing - alcohol. While whiskey rations were issued to the enlisted troops in 1861, they were apparently discontinued early in 1862 so that by March only officers were allowed to have liquor shipped to Hilton Head for their own use. A May 1, 1862 letter from General Stevens to Mr. Eustis states, "[o]rders have long since been issued prohibiting the sale of liquor to the negroes as well as to enlisted men within the limits of this command . . ." (South Caroliniana Library, Box 2162). As the military left, however,liquor became more common, so that in 1869 a Mitchelville teacher (who may have had a bias) remarked,

> [i]ntemperance is one of the most apparent vices on the Island. I think I am safe in saying, that scarcely a family, in which, there is not some member, who is a victim of this Destroyer, - not a store, into which you can enter, - for any necessary article, but you see the fatal Poison, as one of the principle sources of gain, and by <u>White Men</u> to - what can be done to save the youth from this <u>fearful</u> snare? (American Missionary Association Archives, 7345, letter from S. T. C. Gerrish to Rev. E. P. Smith, March 13, 1869).

Mitchelville In The Postbellum Period

General Rufus Saxton, who had been appointed by the War Department in April 1862 to handle freedmen's affairs in the Port Royal area, became Assistant Commissioner of the Bureau of Refugees, Freedmen, and Abandoned Lands on June 10, 1865, with headquarters at Beaufort. He was replaced by General Robert K. Scott in January 1866, largely because of Saxton's "long association with the freedmen of South Carolina" and his staunch defense of their right to the Sea Islands (Rose 1964:356-357). This was the period of land restoration to Southern whites, often at the expense of the newly emerging black yeoman class who had been led to believe that their title to the land was clear. An excellent discussion of this situation is offered by McGuire (1985), who emphasizes the land policies of nearby St. Helena Parish from 1861 to 1900. A more general account is offered by Oubre (1978), and Abbott (1967) discusses the Freemen's Bureau in South Carolina.

While much of the teaching during the war years was conducted by Quartermaster employees, there were a number of missionaries in the Port Royal area (see Rose 1964). The most active group was the American Missionary Association, a group which obtained its funds from the Wesleyan Methods, Free Presbyterians, and the Free Will Baptists (Johnson n.d.). The schools on Hilton Head after 1866 were actually Tax Commissioner's Schools, supported by "the proceeds of lands which in 1863 fell into possession of the general government at tax sales." W.E. Wording, a Tax Commissioner, was the disbursing agent. Teachers' salaries were paid by the government, and most of the buildings and teachers' residences (except at Hilton Head) were owned by the government. Students were "nominally required to pay 25 cents per month, to be appropriated for the purchase of school books at wholesale costs prices, and for fuel, etc." (Alvord 1869:20-21). It is clear, however, that the American Missionary Association contributed heavily toward its teachers' upkeep and that those unable to pay the 25ø were not turned away (AMA Archives, H7634).

The activities of this group provide one of the few postbellum views of Mitchelville, where they concentrated their efforts because of its large black population (see Martin 1977). By 1866 they were the sole missionary group on the island and a November 10, 1866 letter from George C. Carpenter to Rev. Samuel Hunt states that the teachers would,

> live here at Mitchelville till you send more teachers for other points . . . . The other society has abandoned the island you know and we

> have all the ground (AMA Archives, H6251).

In 1866 Hilton Head was divided into five school districts -- Mitchelville, Marshland, Seabrook, Stoney, and Lawton (the latter four being named for the plantations at which school was held) (AMA Archives, H6268). The AMA was offering a primary, intermediate, and high school for the Mitchelville blacks, being taught at the Free Will Baptist, Methodist, and Baptist churches respectively. Attendance at the primary school, which met for 4½ hours a day, ranged from 108 to 52, at the intermediate school attendance varied from 15 to 40, while the high school students, who met for 5 hours a day, had attendance ranging from 90 to 62. The teachers recognized that the attendance was directly tied to agricultural needs, so that in March 1867, E. Wright wrote to Rev. E.P. Smith that,

> I suppose there will be a considerable irregularity in the attendance of the pupils now that the season for work in the fields has arrived (AMA Archives, H6463).

The teachers lived at "The Home" in Mitchelville, described by Eliza Summers as,

> a little bit of a house with a single thickness of boards for sides and floors, not a bit of whitewash or plaster on the whole house and spaces between the boards on the sides wide enough so the birds fly through. Every house on the Island stands on posts so that the air can circulate under . . . . The garret [gallery, porch] is considered the coolest place. The houses here look like barns on stilts. but the teachers' home is so small and light that the slightest wind shakes it (Martin 1977:7-8).

That "The Home" was unattractive is also supported by E. Wright's November 22, 1866 letter to Rev. Samuel Hunt,

> [i]t seems to me that teachers sent to such a desolate field as this ought to have a more liberal allowance and more special attention . . . . Though the surroundings are forbidding and dreary the house at least can be made comfortable and pleasant . . . . I have visited a

> good many teachers' homes but have never found one so poorly supplied (AMA Archives, H6266).

Another problem was the lack of school houses at Mitchelville. The teachers wrote on at least two occasions (November 29, 1866 - AMA Archives, H6275 and December 3, 1866 - AMA Archives, H6282) pointing out that the black churches were unheated in winter, small, and lacking in school house conveniences. No school houses, however, were built. By 1867 it was obvious that enrollments were dropping and a March 20, 1867 letter from E. Wright to Rev. E.P. Smith states,

> Maj. Delany [Freedmen's Bureau] says a third of the blacks have left the island this spring. Others will come to take their places in time, but the schools will not fill up again this year (AMA Archives, H6476).

Although two sections of the Primary School were being offered, total attendance was down to about 60 students, high school was not being taught, and the Intermediate school attendance ranged from 45 to 23. An Alphabet School was offered in the 1867 school year, with attendance ranging from 75 to 36.

By 1868 changes on the island were even more noticeable. One teacher noted that,

> [m]y school is very small . . . . The people are at work and are obliged to keep most of the children at home. I think my time would be more profitably passed now in a new field (AMA Archives, H7003).

The 1867 abandonment of Hilton Head by the military was felt strongly by the teachers, and we presume by the blacks. A letter from Mary T. Putnam to Rev. E.P. Smith dated November 26, 1868 discusses how government buildings have been sold, the Marshland mansion (used for the teachers' residence) had blown down, how the steamer now stopped only at the Seabrook landing, and how there were no "government teams" (AMA Archives, H7216).

In spite of all this, it appears that Mitchelville was still an active village. M.A. Burnett wrote on January 7, 1868,

> [t]here are several large plantations upon which are small

> settlements, but the greater part of the colored population of the island are located a short distance from Hilton Head at a place called Mitchelville . . . . It is an incorporated town, regularly laid out in streets and squares. About 1500 inhabitants, not a single white person. There are three churches - two Baptist, one Methodist, two schools which are taught by A.M.A. teachers (AMA Archives, H6901).

The teachers, however, were no longer living at "The Home" in Mitchelville because a portion of it fell down in November 1867 (AMA Archives, H6835). "The Home" was put to use as a school building and records indicate it was the scene of the 1869 primary and intermediate schools.

The AMA letter also provides insight on the location of "The Home" within Mitchelville. On January 28, 1870, S.P. Gerrish, the last AMA teacher for Mitchelville, wrote Rev. E.B. Smith that the Mitchelville "Home" would soon be "untenantable - 12 ft. of the front yard having been washed [away] by the sea since we left it and now is being torn in pieces by vandal hands, for feul [sic]" (AMA Archives, H7657). She also mentions that "The Home" was situated on A Street. The New York office advised her to dispose of the structure in the best way. The next correspondence from Gerrish is on May 14, 1870, when she said,

> I have delayed writing with reference to the "Home" until this late hour for what seemed to me a reasonable offer for it. 30.00 dollars being the <u>largest</u> <u>sum</u>. That offer is by a Methodist preacher who has in charge the building of a church for that denomination on this island (AMA Archives H7759).

This suggests that the teachers' "Home" was situated at the north end of the village, adjacent to the rapidly eroding Port Royal waterfront. Such a location is reasonable since the proximity to the water would have produced a cooling breeze. Reference to Figure 16 also reveals that the structures facing Port Royal Sound have been set off from the remainder of Mitchelville, implying a distinction or division. Summers describes the bridge, seen in Figure 16, which connected Mitchelville with the Hilton Head post, noting that "[t]he home is at one end of the bridge and Mr. Noyes' store is at the other end" (Martin 1977:48).

Apparently the structure was sold to the Methodist preacher for on February 18, 1871, a James E. Hill wrote the AMA,

> [t]his will informe you that I have receive your letter ten days after but my reason for not answer your letter is because there was several clames was made to that house property which you let me have it is now said to belong to the Government please give me propper clames to that property (AMA Archives, H7847).

Two notes at the bottom of the letter indicate something of the AMA response: "Miss Good. Can you tell me anything about this?" and "He means proper title - we will give him." Whether James E. Hill was ever able to salvage the structure is not known, but the AMA archives suggest that by the early 1870s Mitchelville, while still occupied, was also eroding and being scavanged for building elsewhere.

At the end of the 1870 school term, Judge Wording of the Tax Commission, who was in charge of the Tax Commissioner's Schools, notified Gerrish that he was not renewing her support and the last AMA school in Mitchelville closed. By that time her attendance in the intermediate school ranged from 54 to 21 with about half paying the 25ø tuition or "tax" as she called it (AMA Archives, H7634). School was meeting about 20 days a month for 5½ to 7 hours a day. While no white students were reported for 1870, three were reported for the preceding year in the Intermediate School (AMA Archives. H7383) and two attended the Primary School (which was closed at the end of the 1869 school year) (AMA Archives, H7253).

The AMA Archives provide occasional items of lesser interest concerning the Hilton Head environs and the blacks in Mitchelville. Summers mentions that quantities of wild plums and blackberries were collected by the blacks (Martin 1977:91) and that the blacks raised "caster oil" plants in their gardens (Martin 1977:51). Wright comments that everything on Hilton Head "is exhorbitantly high" and requests that Irish potatoes, beets, cabbages, butter, lard, flour, spices, sugar, tea, coffee, corn starch, farina, apples, condensed milk, crackers, and five stoves be shipped from New York (AMA Archives, H6266). For the three months ending December 31, 1866, the AMA spent $370.41 on provisions, $63.50 for fuel, and $24.00 each for the cook's and washerwoman's wages. At that time there were four, perhaps five, teachers in the Mitchelville home, so provisions ran only $25-$31 per person per month (AMA Archives, H6304). There is also evidence that besides the AMA teachers, who taught Sunday school during the school term, there were

others, perhaps local blacks, who continued the Sunday School lessons through the summer (AMA Archives, H7146). Indeed, by December 1869 Gerrish had an unnamed black assistant teacher (AMA Archives, H7640).

Throughout the war Drayton Plantation had remained an active spot. Within days of the island's fall to Union forces, the blacks at Drayton's had a large prayer meeting and provided the Northerners with their first view of a black religious event (Eldridge 1893:76). The Drayton Plantation was also the location of an operable cotton gin in February 1862 (Eldridge 1893:107) and a large sawmill (No. 2), which burned in August 1863 (Saw Mill Burned 1863). The yard of the Drayton house was the campground for the First South Carolina volunteers, the first black regiment (The Negro in South Carolina 1862).

In July 1867, Fish Hall was home to 120 blacks. The Freedmen's Bureau also specified that it contained 250 acres of cultivated land, 125 acres of wood, and 125 acres of cleared lands (compared with 250 acres of improved land and 450 acres of unimproved land in 1860; the "loss" of 200 acres cannot be explained). On the property were "mansion, barns and quarters" (National Archives, RG 105, Monthly Report of Lands, July 1867).

Many blacks were understandably reluctant to work for their previous owners, or any white man for that matter, much preferring to acquire their own land. McGuire points out that land rental, especially on federal property, was an acceptable alternative which allowed independent cultivation. She also notes that "enterprising freedmen sometimes combined resources and rented entire plantations" (McGuire 1985:158). This situation is seen at Fish Hall, where the Tax Commissioners rented the plantation to Bacchus Singleton, in trust for himself and those residing on the land who paid their portion of the rent, in 1865 for $220. The property was rented "subject to occupation by the military authorities, and reserving one half the mansion house for a school." Additional rules and regulations precluded more than half the arable land being cultivated in any year, required land to be fallow for a year, specified that nothing should be wasted, allowed the government to take a lien on the crop (since only half of the rent was paid in January, with the remainder due in July), specified that no one currently residing on the property could be forced off, required that laborers perform their fair share of the work, and prohibited the laborers from living in or occupying the mansion house. The Tax Commissioners also specified that individuals working for the Government could continue to live on the plantation and, although not participating in the rental program, might cultivate up to three acres per full hand at a cost of $2 per acre (National Archives, RG 217, Records of the Beaufort, S.C. Tax District, Indenture

Volume, p. 63). This would suggest that there were individuals living at Fish Hall who, like those in Mitchelville, were primarily wage hands.

A similar rental agreement was prepared in 1866, again with Bacchus Singleton, for $220. This time, however, the plantation description specifies,

> except the mansion house thereon, Garden and buildings for necessary house servants and the Corral (so called) subject to occupation by the military authorities. And there is also excepted from this lease the village of Mitchelville (so called) (National Archives, RG 217, Records of the Beaufort, S.C. Tax District, Indenture Volume, p. 81).

A similar rental agreement was prepared for 1867, again, excluding Mitchelville, although the corral is not mentioned and the rent is only $90. By 1868 (and again in 1871) the agreement is with Summer Christopher. In 1868 the rent is not specified, perhaps by mistake, while in 1871 the property is no longer rented "in trust" and the fee is $140 (National Archives, RG 217, Records of the Beaufort, S.C. Tax District, Indenture Volume, pp. 81, 129, 154, 236).

The failure to rent the plantation after 1871 is indicative of the gathering storm of land restoration. Fish Hall, being purchased by the federal government and never going into private ownership, was not intensively involved in the bitter controversy surrounding the war time direct tax sales to white Northerners and local blacks (see McGuire 1985). The military post at Hilton Head was officially abandoned on January 14, 1868, but the affairs of the Department of South (renamed Second Military District) were largely transferred to Charleston after its fall in 1865 (for example, see National Archives, RG 92, Box 402). By 1868 a Board of Appraisal was studying the sale of buildings at Hilton Head to the Freedmen's Bureau (Special Order 60, Headquarters Second Military District, Charleston, South Carolina, March 23, 1868) and by 1871 land at the "entrenchments" was being leased or sold (National Arvhives, RG 217, Journal of Direct Tax Commissioners for South Carolina, pp. 37, 39).

McGuire notes that by 1872 the Port Royal area was "'in a state of utter disorganization' from the effects of planters attempting to divest title from wartime purchasers" (McGuire 1985:132). It was hoped that restoration of federal lands, to which no one had a strong attachment, "might slow or even terminate court proceedings on lands sold already, thus permitting wartime purchasers to retain undisputed title

to their holdings" (McGuire 1985:132). To this end a bill was introduced into and passed the 42nd Congress, 2nd Session (House bill 1269, Senate bill 780), which allowed two years for the restoration of all unsold Federal holdings after the previous owner paid taxes, costs, and interest. The law was extended several times, making it possible to apply for land redemption until 1877 (McGuire 1985:132-133). Thus, on April 17, 1875, the heirs of Mary B. Pope paid $407.83 and obtained approximately 1300 acres of Fish Hall Plantation (including the Pine Land tract) back from the Federal government (Beaufort County RMC DB 9, pp. 254-255). Excluded from the Certificate of Release were the approximately 803 acres on the Hilton Head Point south and east of Fish Hall Creek, which were reserved as a military reservation (National Archives, RG 49, Hilton Head), but included was the village of Mitchelville (Figure 22). Perhaps anticipating the return of the Fish Hall tract the heirs of Mary B. Pope (John E. Drayton, John G. Thomas, Anna M. [Drayton] Thomas, William S. Drayton, Mary E. Drayton, Percival Drayton, Emma G. Drayton, and Thomas F. Drayton, Jr.) had given their power of attorney to Henry E. Young and William S. Drayton for the express purpose of disposing of Fish Hall Plantation (Beaufort County RMC, DB 10, pp. 516-517). The heirs were not concerned that the property be sold as a tract, and even specified that lots could be donated for "church purposes." Of particular note is the statement that they authorized the attorneys to establish a cemetery on the Fish Hall lands "and give graves or lots . . . to such . . . persons as will remove their dead from the places of present interment near the residence house" (Beaufort County RMC, DB 10, p. 516). Given the proximity of the present day "Drayton Cemetery" to the site of the main house, it appears unlikely that Young and Drayton were successful at getting relatives to move any graves. Perhaps unknown to the Draytons was the location of a smallpox cemetery (No. 3) "325 yards northwest of the Drayton Plantation House," in which there were buried, with headboards, eleven soldiers, while 20 other graves were unmarked. The military, in the late 1860s, was still using the cemetery and stated "the bodies cannot be moved without danger of breeding contagion" (National Archives, RG 92, Box 402).

Rivers and Drayton, however, were otherwise successful as they began selling parcels of the property in 1876. Robert C. McIntire bought 147½ acres on December 9, 1876, Kate Fields bought 5 acres on January 8, 1977, James Washington, Sancho Christopher and Phillis Holmes purchased 16 acres on January 22, 1877, Rutledge and Young, Esq. purchased 201 acres on August 31, 1878, and G.P. Gardner purchased 650 acres on October 1, 1888 (Beaufort County RMC, DB 10, pp. 514-515; DB 11, p. 105-106; DB 11, p. 569; DB 11, p. 363-364; DB 18, p. 613). This would appear on the surface to be an atypical situation of the former owners not wishing to restart plantation operations and expressing a

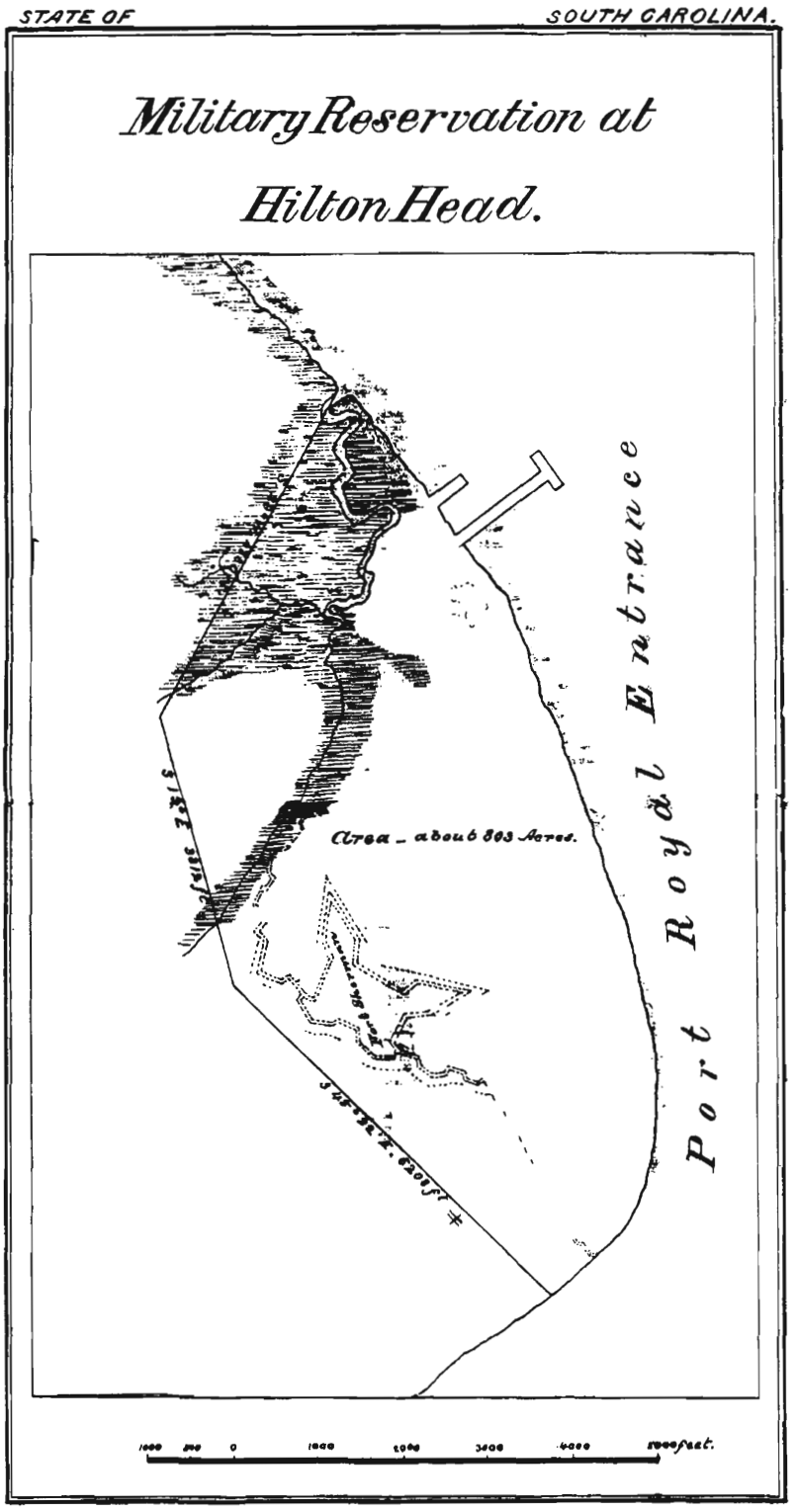


Figure 22. Plat of the lands set aside in 1874 for a military reservation on Hilton Head Island.

willingness to sell land both to speculators and to freedmen. The last transaction, to G.P. Gardner, probably contained a large portion of Mitchelville, although it is not mentioned by name.

In 1912, Clara Wigfall, Emmelin Washignton, Linda Perry, Gabriel Boston, and Celia Boston, all heirs of March Gardner (the father of G.P. Gardner) brought suit in the Beaufort Court of Common Pleas against James Heyward, Lillian G. Pearson, Lavinia Howard, Henry Heyward, and Clifford Heyard (heirs of wife of G.P. Gardner) for 154 1/4 acres of land encompassing most of Mitchelville (Beaufort County RMC, Judgment Roll 2795).

The plaintiffs alleged, and the court finally agreed in 1921, that March Gardner, an illiterate, but very successful black man, had purchased the Mitchelville property from Drayton sometime between 1865 and 1866 and had immediately thereafter paid a fine to release his only son, Gabriel P. Gardner, from jail in Charleston. March placed his son in charge of the property, mill, gin, and store, and entrusted him to have a proper deed made out. Although not addressed by the Court, Drayton could not provide a deed, because in 1865 - 1866 the land still belonged to the federal government, not the Pope heirs. Gabriel took advantage of his father by eventually obtaining a deed in his own name and then transferring the property to his wife and daughter.

The most significant aspect of the court action is the depositions taken by a Court appointed Special Master. The blacks that came forward to offer testimony talk of the Mitchelville area during the late nineteenth century, a period of time from which there is little other documentary evidence. Emmeline Washington testified that her father, March Gardner, died about 1880. He had purchased Mitchelville from William Drayton and operated a number of businesses there. Apparently a number of individuals farmed plots on the land and the money collected as rent went to pay the taxes. Clara Wigfall revealed that she was born "in slavery times" and that her father arrived at Hilton Head, during the war, several years before she came over. She had been cultivating 3 - 4 acres of the property every year. Renty Miller talked of how "many people was planting the land in lots when the old man [March Gardner] lived" and how they rented the land from him. Linda Perry remarked that March Gardner had a "gin house and cotton house, and grinding [mill]." There was also a store on the property in the early 1870s. A Stephen Singleton testified that March Gardner was a carpenter who worked for a Mr. Lindsey during the war. After the War March apparently constructed a mill and ginhouse in Mitchelville, which was apparently still a village. Thomas Wigfall, who was 18 when the Civil War began, frist met March Gardner in 1863. At that time he was building a shop on one of the Mitchelville roads. March was

also planting peas and cotton and Emmaline Washington ran the shop in Mitchelville. Wigfall also mentioned that the boiler for the mill was still at Mitchelville in the 1910s. Wigfall was also able to name a number of people who lived at Mitchelville -- John Nesbit, Bob Washington, Caesar White, Charles Robins, Charles Perry, Robert Wiley, Scapio Drayton, Jack Screven, Charles Pinckney, Billy Reed, Peter Flowers and Joe Williams. Hannah Williams testified that she came to Hilton "two years before the soldiers were mustered out [1868]" and that she stayed at Mitchelville where she eventually purchased a house for $5, although she did not receive a deed.

An examination of the deeds of property improperly sold by Gabriel P. Gardner's wife and daughter (S.A. and S.B. Gardner) also offer some insight. Virtually all of the deeds, dating from the early to mid-1880s describe the property as being "in the village of Mitchelville" and use specific road names, such as First and Second Streets or the terms alley and lane. Property is deeded to churches and also to individuals who are already residing on the property (Beaufort County RMC, DB 13, p. 250-251; DB 13, p. 473; DB 13, p. 601, DB 14, p. 334). March Gardner's store, opened sometime in the early 1860s, continued to be run by Susan B. Gardner into the 1890s. In 1892 it was one of six general stores on Hilton Head Island (Anonymous 1892).

It appears that a number of individuals saw in Mitchelville an opportunity to make money. With the federal government leaving Hilton Head and the blacks relatively illiterate and not yet wordly, it was perhaps easy enough to sell Mitchelville twice. Mitchelville was not situated on prime agricultural land and the Draytons probably felt (correctly) that few planters would want to purchase a black town. March, and later his son Gabriel, however, began collecting rents on (and selling) property other blacks had been using for years. The federal government, which had tried to think of every possible aspect of town government, had made no provision for the town once the war ended since the early land policies presumed that the blacks would own the land in perpetuity. It was unthinkable to the early planners of Mitchelville that the land on which the town was situated would eventually be restored to its former owners.

The Court directed a survey be made and the property divided among the legal heirs upon each one paying their share of the costs associated with the case (Figure 23). Eugenia Heyward redeemed her tract of 35 acres on June 7, 1923 (Beaufort County RMC, DB 39, pp. 342-345). It is this tract on which the Fish Haul site is situated. Celia and Gabriel Boston obtained the adjacent tract on September 2, 1921 (Beaufort County RMC, DB 39, pp. 1719). Linda Perry, Emmaline Washington, and Clara Wigfall also obtained their

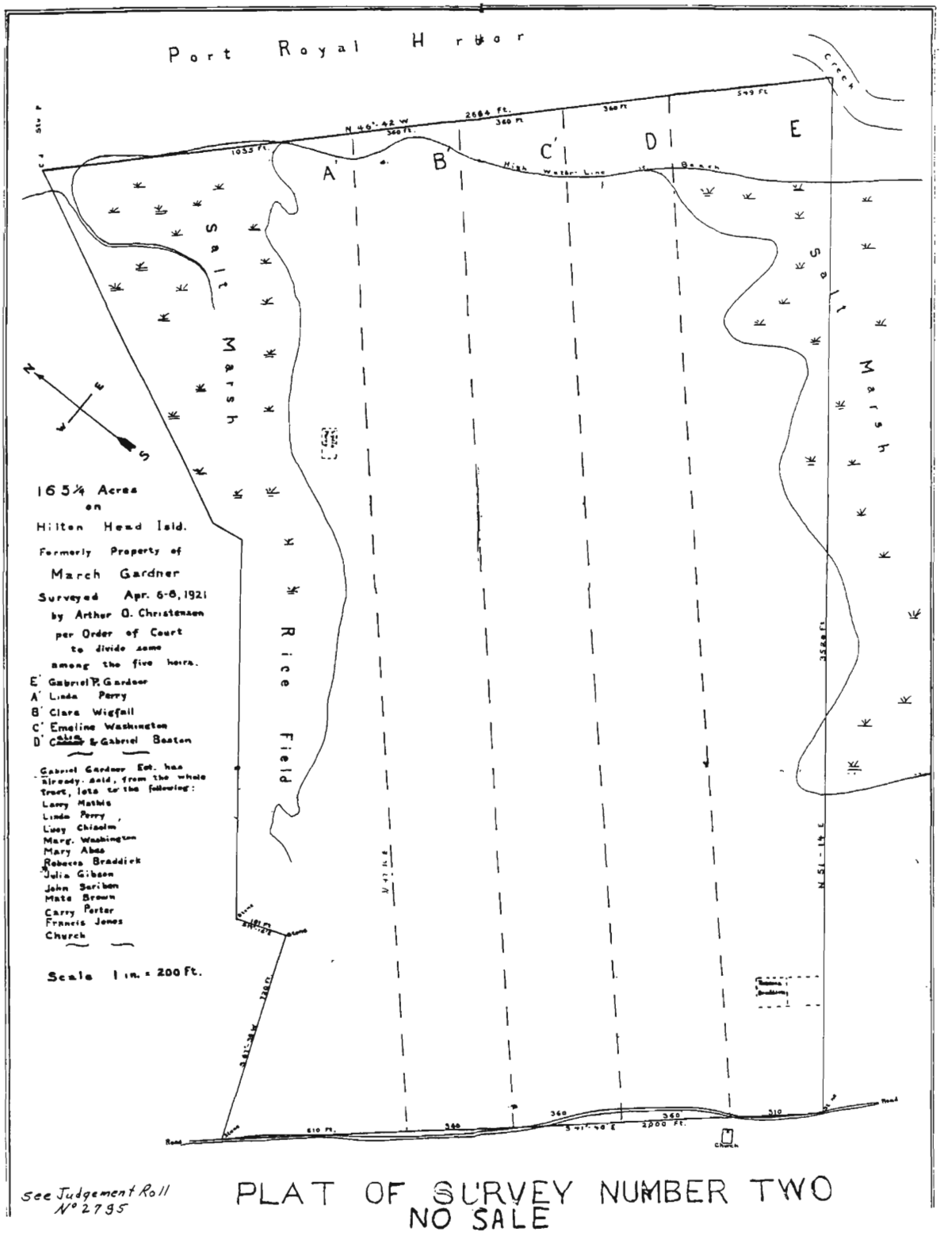


Figure 23. Plat of the Mitchelville tract in 1921 (Beaufort County RMC, Judgement Roll 2795).

respective parcels in 1921 (Beaufort County RMC, DB 39, pp. 14, 37, 39).

By 1930 the 35 acre (calculated at 33 acres in 1930) Eugenia Heyward tract was sold for $31.00 by the Sheriff to pay a defaulted tax bill of $15.00. The purchaser was Roy A. Rainey of New York (Beaufort County RMC, DB 46, p. 232). Rainey held the property for a little over 10 months and sold the 33 acre tract to Landon K. Thorne and Alfred L. Loomis on May 21, 1931 (Beaufort County RMC, DB 48, pp. 117-118). Thorne and Loomis are discussed by Holmgren (1959:123, 126) who notes that they gradually acquired the entire Fish Hall tract by "buying land from any negroes willing to sell, and by 1936 there were only 300 negroes on the island instead of the 3,000 of forty years before" (Holmgren 1959:123). Loomis and Thorne sold their property, including Mitchelville, to the Hilton Head Company on March 22, 1950 (Beaufort County RMC, DB 70, pp. 7-8), who in turn transferred it to the Hilton Head Co., Inc. through the merger of the Hilton Head Co., Port Royal Plantation, and Island Development Corp. in 1972 (Beaufort County RMC, DB 195, p. 1143). From there the property was transferred to John L. Crago, to the Fish Haul Corp., and from this corporation to Louis Joffre as a number of individual lots. The 28 acre Celia and Gabriel Boston tract was sold to Johnnie White on March 15, 1943 for $20.00 by the Sheriff for deliquent taxes (Beaufort County RMC, DB 88, p. 58).

Other descriptions of postbellum life in and around Mitchelville include such sources as Parsons (1923). She notes that the typical house was frame, usually painted white, and raised "about two feet from the ground, on posts made of oak or palmetto" (Parsons 1923:208). It is apparent that housing styles changed little since the antebellum period and the house of the early twentieth century was identical to that observed in Figures 18 to 21. By the early 1920s there was only "one old man [basket] weaver left" on Hilton Head and the only baskets still observed were shallow, used for washing corn (Parsons 1923:208). Farmers on Hilton Head worked their own lands, usually with horses (Parsons 1923:208-209). By the late 1930s legal transactions were still uncommon with the island's blacks. The Federal Writers' Project said,

> [d]eeds to practically all these plots [of land sold to blacks] are still in the names of the negroes who bought them, and their children and grandchildren pay taxes in the names of forefathers, long since dead, rather than in their own names as actual owners (Federal Writers' Project 1938:8).

In the early 1880s the agricultural practices of the blacks were described,

> [t]he size of the land-holdings is from one to twenty acres and nowhere is more than fifteen acres of cotton cultivated under one management. Much of the land is uncultivated, and the remainder, in small patches, varying from one-eighth of an acre and less to three acres in size, is planted in corn, cotton, and sweet potatoes, curiously intermingled (S.C. Department of Agriculture 1883: 31; see also Woofter 1930).

For some reason the postbellum cartographic sources for Hilton Head range from unrevealing to outright inaccurate. U.S. Coast and Geodetic Survey Chart 438 was first published in 1873, based on 1865 and 1868 topographic surveys (Figure 24). While the main fort buildings and the Drayton settlement are clearly shown, there is no indication of Mitchelville, which was a prospering village at the time of the topographic surveys. There is a settlement located on the south side of a small tidal creek north of Mitchelville. There is no indication of a village in this area so it is likely that the topographic survey mislocated Mitchelville by one tidal creek too far north. The 1882 chart has no new topographic survey, but the fort complex has been removed exept for two structures and the pier is shown in ruins. Drayton's plantation is still shown, as is the misplaced Mitchelville. The 1893 chart is identical. Turning to the 1920 Corps of Engineers Hilton Head topographic map (Figure 25), the 1916 topography shows a number of structures in the vicinity of Mitchelville, including a church. The area is shown as cultivated and this map probably shows the area as it appeared to the parties of the 1911 court action over the March Gardner tract.

Summary

The historical accounts of Mitchelville are useful not only because they provide an interesting, if not altogether clear, view of the freedmen lifestyle, but also because they offer an opportunity to more clearly focus our archaeological study. Based on the historical record we may formulate certain archaeological expectations which will serve as topics for further study. At this initial stage the bulk of these topics relate to material culture, but this will begin to allow a comparison to be made between antebellum slave and postbellum freedmen lifestyles.

The blacks' first opportunity to obtain previously unavailable or scarce goods came with the abandonment of the island by Southern whites. Three avenues were opened to the contrabands -- scavanging of goods and supplies abandoned by the Confederates, looting plantation houses, and bartering from Union troops who looted plantation houses. Previous studies have indicated that slaves, in spite of laws to prevent it, did acquire firearms which were used to supplement the diets of both slave and owner (Joyner 1984:100-101; Otto 1984:45-46). We would expect that the island's blacks would have acquired a supply of arms and ammunition from the retreating Confederates, both of which should be evidenced in the archaeological record. There are specific historical accounts of both "dishes" and clothing being looted by the slaves after the Confederates abandoned Hilton Head. We anticipate that a variety of both durable and non-durable high status goods (specifically furniture, clothing, and kitchenware) will be incorporated into the archaeological record.

The freedmen were almost immediately introduced into a wage economy, although Genovese (1972:313-317) notes that many blacks had some exposure to wage labor (or similar incentives) during slavery (see also Stampp 1956:72-73, 90). The period of prosperiety in Mitchelville lasted from about 1861 through 1867. Wages varied from $4 to $12 a month, depending on the job. The lower end of the scale, typifying unskilled and domestic labor, was equal to that paid antebellum Virginia housemaids (Olmsted 1953:75), while the higher end, paid to skilled freedmen, was equal to only the antebellum wages of poor whites who worked in cotton mills (Olmsted 1953:213, 385). The freedmen were not paid on par with Southern mechanics, much less at current Northern wage rates (Olmsted 1953:90, 487-488).

Research by Seagrave in Louisiana reveals that there was a significant increase in real incomes of Class 1 field hands in the period following freedom. Seagrave notes that, "by the years 1866-67 real incomes of those workers had increased between 100 and 200% over the levels of goods and services provided to slaves prior to the War's end" (Seagrave 1975:75).

Blacks apparently engaged in unbridled consumerism at Mitchelville. Trading stores in the town sold three major categories of goods -- clothing, kitchenware, and food. All three categories may be observed in the archaeological record: clothing as fancy notions and buttons; kitchenware as ceramics, utensils, tinware, and glasses (although ceramic sets may not be found and tinware may have been more common than ceramics); and food primarily as tin can fragments. While this improvement in purchasing power will be observed in the archaeology of Mitchelville, it will be tempered by the short duration of military wage labor (1862-1867), the

extremely high prices charged by local vendors, and the loss of plantation rations (valued by Seagrave [1975:19] at $43.00 a year for Louisiana slaves between 1856 and 1860).

In spite of freedom, and the freedmen's resultant joy, blacks overall did not show any amazing rise in economic wealth. Most continued to be relatively poor, although many were able to purchase lands and some of the luxuries they were previously denied. While previously clothing, food, tobacco, and medicine were more or less routinely supplied by their owners, freedmen were largely responsible for all of their needs, as well as wants. The archaeological record, therefore, may be uneven. In the face of multiple choices, we anticipate considerable idiosyncrasies and it seems unreasonable to believe that, at least at first, there will be much uniformity in purchasing habits.

Seagrave suggests several factors to account for the freedmen's failure to attain their full economic potential. Although this study was conducted for Louisiana and is based on farm wage labor, it may still be useful for understanding the situation in the Hilton Head area. First, Seagrave notes that there was a deterioration in the terms of trade after 1859, so that the price of cotton was lower in relation to the price of ration goods than it had been in 1859. Second, and probably of greater significance, there was a drop in output and productivity between the years of 1859 and 1869. A number of factors are responsible for this decline, including the reduction in the use of compelmentary resources, the reduction in capital expenditures needed to maintain the quality of the farms, and the substitution of leisure time for work over the year by the freedmen (Seagrave 1975:69-72).

The military influence on the Mitchelville settlement is anticipated to have been minimal, based on the decision to establish the village as an autonomous governing body -- part of the grand experiement. This is fortunate since it largely eliminates a significant variable from the process of black acculturation to freedom. The freedmen, particularly from 1862 through 1867, did have access to military clothing, through bartering and relief efforts. Abundant evidence of this is expected in the archaeological record. Likewise, military rations were issued to a number of the Mitchelville occupants. These rations included fresh meat, either beef or pork, and we expect to see evidence of specific cuts in the archaeological record, although by March 1863, General Order 22 limited the issue of fresh beef because of its expense. There is no indication that any of the trading stores carried fresh meats, so the beef found in the archaeological record is most likely military issue and a sign that the refuse was from a household whose members were hired by the military.

Of all the public services and laws possibly formulated by the leaders of Mitchelville (with military assistance), only those relating to sanitation and possibly education are likely to be clearly visible in the archaeological record. The laws regarding sanitation may be evidenced in different refuse disposal practices. Refuse may no longer be thrown behind the house in the rear yard, or in the street, or in an adjacent marsh, but may be collected and disposed of in a central location. Alternatively, this may represent only a minor refinement in previous practices which required slaves to "stockpile" certain types of trash (such as oysters for eventual use in tabby production). There may also be an increase in the use of privies among freedmen, although to obtain evidence of this will require more intensive excavations than are currently feasible. There were at least three (and through time probably more) public buildings in Mitchelville which served as both churches and schools. These structures will be clearly evidenced in the archaeological record by their size and artifact pattern.

The settlement pattern of Mitchelville is clearly documented in the historic records. Not only is there a detailed map of Mitchelville, but there are also photographs of the contraband quarters. These photographs show structures which appear well built and which will leave a distinct archaeological record, but which will not leave evidence of their exact location or size. We suspect that the quantity of architectural remains (nails, hardware, window glass) will be high, although the absence of brick piers and a substantial roof overhang will make it difficult to firmly establish many structural details. Brick fireplaces appear relatively uncommon, being largely replaced by stoves and vents.

In contrast to the ordered regularity of the Mitchelville map, the Mitchelville photographs suggest a certain causalness to the village organization. We believe that the map may be somewhat idealized, or else may represent Mitchelville early in its history. The detail of the map suggests that it may be possible to pin-point specific structures, although since the structures are not keyed to individuals or any census, this effort is useful only for reconstructing the spatial limits of the village. The photographs suggest that as the village grew, the strict 1/4 acre lot division may have been broken down, but it may be useful to study adjacent structures to determine how strict boundary lines were and what sort of refuse disposal practices existed, particularly after 1867. The individualized construction techniques and house designs revealed in the photographs are the result of the freedmen building their own houses. As a consequence, we will expect great diversity in the archaeological record, reflecting the individual abilities, tastes, and resources of the freedmen.

There is clear evidence that in the 1870s the face of Mitchelville was changing -- structures were being torn down and new ones were being built. It appears that there was salvaging of materials from old structures, brought on by expediancy, the expense of purchasing new hardware and window glass, and the absence of government operated saw mills. We anticipate that evidence of salvaging may be observed in the archaeological record as robbed architectural features, reuse of brick, and a variety of window glass thickness.

Finally, the historic documents reveal occupation in some areas of the village continuing into the 1910s. Identification of late structures, however, is not likely because of their reduced number. This late kin-based community did possess at least one store, a gin, and a mill. Future archaeological research should study this aspect of Mitchelville.

Unlike other "negro camps" which served as temporary holding areas for displaced contraband, Mitchelville was an example of the northern experiments in citzenship. It was organized along the lines of northern urban areas, with elected town officials empowered to maintain the civil order. Begun in 1862, its history through 1867 probably represented that of a moderate sized community of primarily wage laborers. Structures, built by freedmen, had a strong tie to previous "slave hut" architecture. After 1867 there is evidence that the village continued relatively unaltered and intact into the early 1870s. The economy of its inhabitants, however, turned away from the declining wage labor opportunities and returned to an agrarian base (the inhabitants entered the sizable "black yeomanry" class). Sometime in the late 1870s or early 1880s Mitchelville ceased being a true village and became a small, kinship based community. This community apparently continued into the early twentieth century, based on the nucleated settlement observed on the 1920 Hilton Head map (Figure 25), until it was destroyed by a second Northern invasion and infusion of development money. Such was a sad end for an area that boasted it was,

> the great experimental department of the country, and upon its stage have been advanced ideas which, more than any others, have contributed to mould public opinion (The Department of Experiments 1862).

Rose clearly reveals the failures of the "Port Royal Experiment," noting that the Northerners felt that "in granting the franchise the national obligation to the freedmen had been fulfilled" (Rose 1964:389). Money and Northern support for the freedmen quickly dried up after the

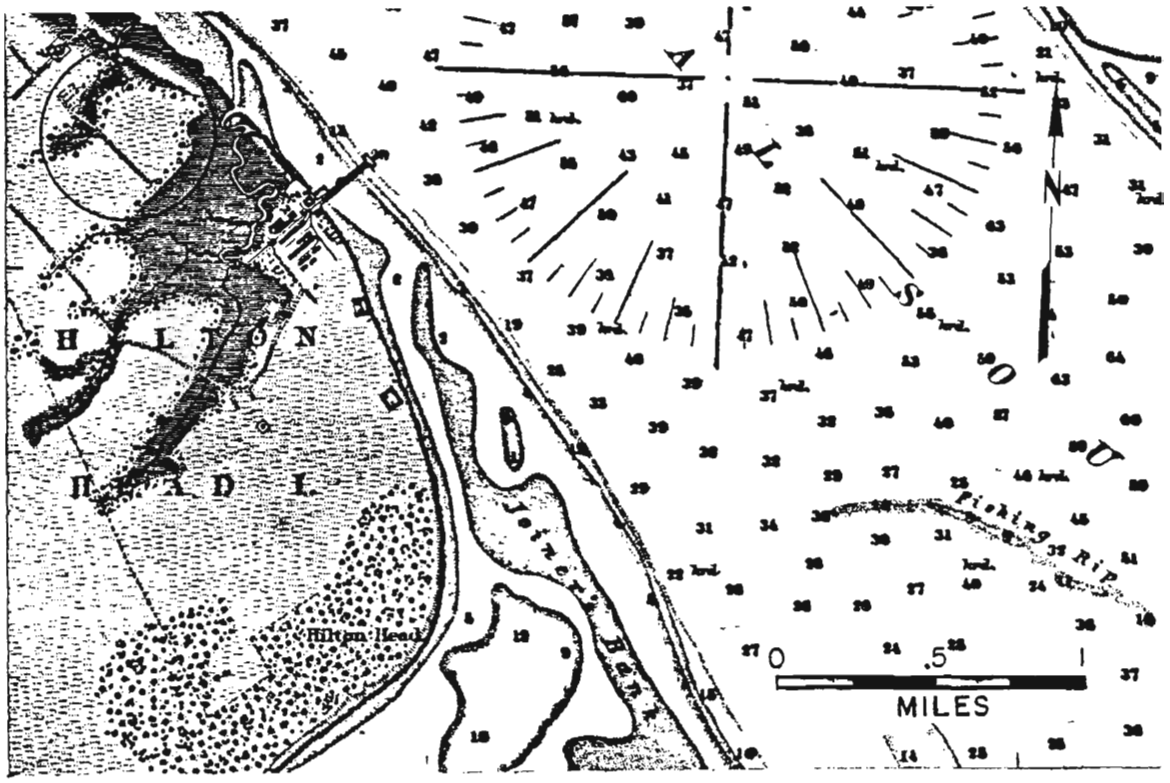


Figure 24. A portion of the 1873 USC&GS chart 438, showing the Mitchelville vicinity (circled).

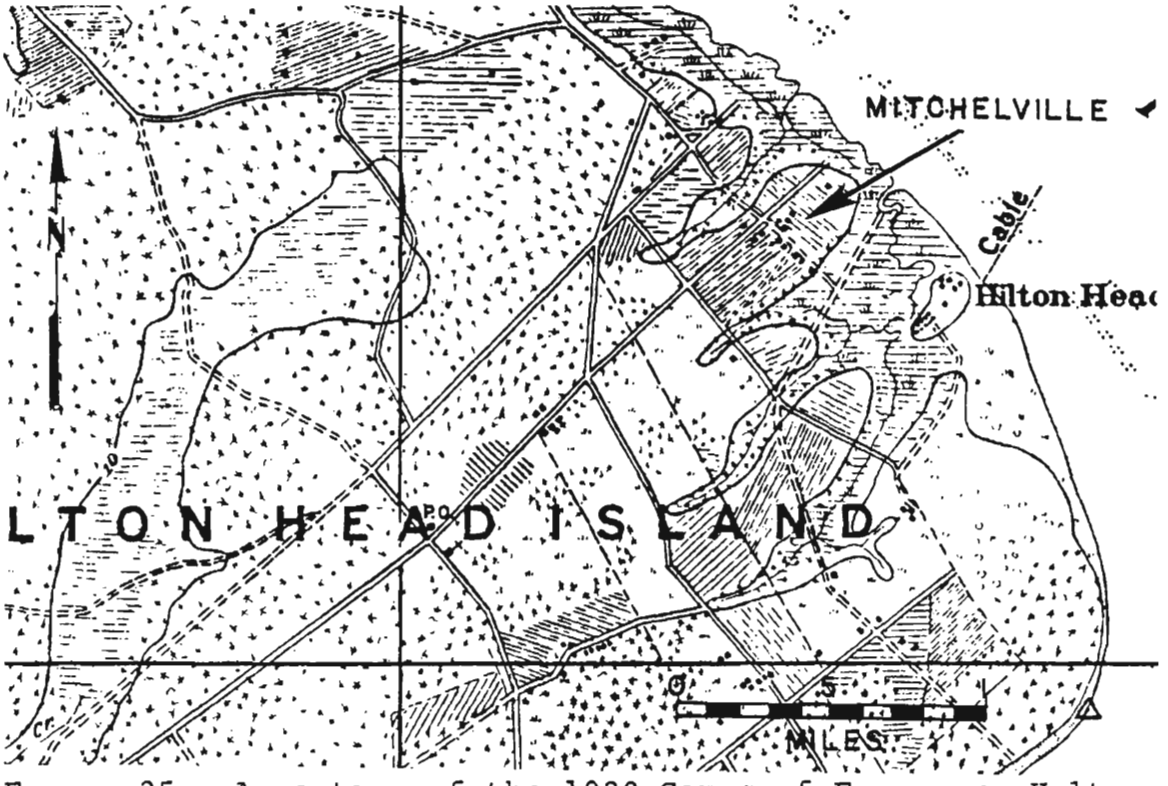


Figure 25. A portion of the 1920 Corps of Engineers Hilton Head topographic map, showing Mitchelville.

war, leaving most blacks with little beyond their small plots of land which they carefully guarded, for "they well understood the bases of their security" (Rose 1964:396). The black yeomanry, however, was largely disfranchises by the 1895 South Carolina constitutional convention. Rose notes that Sea Island blacks became, as a result, increasingly self-governing with the Baptist church being the greatest force in their lives. While the "secular law was the 'unjust' law, the church law was the 'just' law" (Rose 1964:407). The impact of Mitchelville, with its sense of community, churches, and order, may have been more far reaching than its brief history would suggest.

EXCAVATIONS

Michael Trinkley

When the Fish Haul site was first encountered in 1982, Crago and Weckhorst both remarked that historic ceramics and prehistoric pottery could be found wherever there was ground disturbance. Faced with remains scattered over at least 10 acres (4 hectares) the original excavations at the site were judgementally placed, based on Weckhorst's experiences during the property's development (Trinkley and Zierden 1983:11). Three 10-foot squares were excavated as a trench in an area of known prehistoric pottery and two 5-foot squares were excavated on the marsh edge (Trinkley and Zierden 1983: Figure 1b). All units were oriented magnetic north-south and were tied into property markers. Excavations were by both natural and arbitrary levels, with all soil screened through ½ x ¼ inch (1.3 x 0.6 centimeter) mesh. Each of these arbitrary levels were about 0.5 foot in thickness.

A number of lessons were learned from the three days spent engaged in this early work. First, while the work revealed rich prehistoric and historic components, it did nothing to establish site boundaries or delineate the types and extent of occupation present at the site. The original impression was that the Fish Haul "site" might represent a number of relatively small, spatially and temporally distinct occupation areas. This was to be a major topic during subsequent work at the site. Second, the vegetation at the Fish Haul site would make the establishment of any sitewide grid system a major undertaking. Yet, if the "site" was, in fact, composed of a number of discrete occupation loci, such a grid, with consistent horizontal and vertical controls, would be a necessity. Third, as had been demonstrated at other sites (e.g. Trinkley 1980a), 10-foot squares would be more successful at revealing the form and function of features, especially in the Stallings zones, than smaller units. Future work would benefit from a continued use of this methodology. While the original work used a backhoe to remove humic overburden soils in an area with little evidence of historic occupation, such a methodology was constrained by the developer's requirements that no trees over 6 inches (15 centimeters) in diameter be removed and that the area be restored to its original condition. Also, mechanical stripping in most site areas would result in the loss of significant data. Fourth, this original endeavor suggested that future work would benefit from the use of finer screening. A number of both prehistoric (e.g., flakes) and historic (e.g., buttons, beads) artifacts might be better represented in collections obtained using ¼-inch (0.6 centimeter) mesh. Fifth, future work in the Stallings loci would benefit from the use of finer arbitrary levels for greater vertical control. The plotting of artifacts,

particularly stone tools, found in situ might also provide a significant source of data neglected during the initial study.

In September, 1985, Mr. Tommy Charles, with the S.C. Institute of Archaeology and Anthropology, visited the site for several hours and excavated 30 2-inch (5 centimeter) auger tests, some to a depth of 38 inches (0.9 meter) below the ground surface. All but five of these tests were placed within 150 feet of the 10 x 30 foot trench excavated by Trinkley and Zierden (1983) and over half (60%) produced prehistoric pottery or lithics. Five tests were placed northerly toward the Port Royal end of the Fish Haul tract (S.C. Institute of Archaeology and Anthropology, notes on file).

These tests, because of their limited extent, produced no new information concerning site boundaries, artifact density, or the different temporal periods which might be presented. While one auger test produced 39 very small pottery fragments (originally representing one sherd), most tests yielded three or four sherds or flakes. Consequently, one of the most significant contributions of this auger survey was to demonstrate that a larger hole was necessary to recover an adequate sample of cultural remains. A second contribution was to verify that the Fish Haul site represented a non-shell midden Stallings site, suspected but not demonstrated by the original investigators (Trinkley and Zierden 1983).

Strategy of the 1986 Investigations

Auger Tests

The first objective of the 1986 work was to obtain more information on the vertical and horizontal patterning of cultural remains on the Fish Haul tract. Previous investigations had demonstrated a variety of components, potentially spread over the entire 15-acre tract, but no definite loci or site boundaries had been proposed.

Since the entire tract was wooded, in some places heavily, it was obvious that some subsurface testing technique would be required, as would a sampling scheme to ensure coverage of the entire tract. Subsurface testing techniques may take any number of forms, such as shovel tests, post hole digger tests, auger tests, or some form of unit testing (1-meter, 3-foot, or even 5-foot squares). Regardless of the technique, the goal of each is to allow the researcher to see beneath the ground cover. Each has definite advantages and disadvantages. For example, the shovel test, while fairly quick to dig, provides a small

"window" into the survey universe. Larger test pits, such as the 3-foot units used successfully by South (1984) at Fort San Felipe, rectify the problems of small size shovel tests, but the technique is quite labor intensive. A 3% sample, found by South (1984) to be a good predictor of archaeological remains, at Fish Haul would require the excavation of 2178 3 foot squares. While such a program is probably quite accurate, it is not very cost effective when applied to a large tract of land about which little is known.

Previous studies suggested that remains would be found to depths of at least 3.3 feet (1 meter). Such depths are not practical with either shovel tests or post hole diggers, (cf. DePratter 1983:33-34), especially in wooded tracts (with abundant roots). The obvious choice, given the terrain and depth of deposits, was therefore a power auger. While a tractor mounted unit with a 10-inch (25 centimeter) auger was initially considered, the heavy woods would have severely limited mobility, so a two person power auger with an 8-inch (20 centimeter) auger blade was used. Such an approach allowed units to be rapidly dug, even in heavily wooded areas with thick root masses. All units were excavated to a depth of 3.1 feet (0.95 meter) and had a surface area of 1.4 square foot (0.13 square meter). As each test was augered, crews came behind to sift the stockpiled soils (Figure 7) through ¼ inch (0.6 centimeter) mesh, collect all recovered items (including brick rubble and shell fragments and soil samples), and record information concerning the auger profile, stratigraphy, and artifacts on a standardized form.

The number and spacing of the auger tests often are difficult both to determine and to justify statistically. Ragir (1967) notes that to obtain a truly representative sample the original population must be fairly well known, which was certainly not the case at the Fish Haul site. Thomas (1969:92-93) briefly discusses the problems of estimating sample variance and determining sample size, noting that, to some degree, the sample size must depend on the size of the population. Watson et al. note that there is a basic difference in the sampling design between a project whose goal is to "describe the range of variation within the universe as accurately as possible" and a project whose goal is the "statistical description and comparison between samples" (Watson et al. 1971:122-123). These two designs are similar to Deming's (1950:10) judgement and probability samples. In the judgement sample the biases and sampling errors cannot be calculated from the sample, but must be settled by judgement. In the probability sample the sampling errors can be calculated and the biases are either eliminated or contained within known limits.

There are four basic types of sampling designs: simple random, systematic, stratified, and multistage cluster, in ascending order of complexity and (generally) reliability.

The stratified and cluster designs decrease sampling error by ensuring a more homogeneous population. These techniques were rejected for the Fish Haul tract because there was no reason to doubt the presence of a homogeneous population and no reasonable strata, such as environmental zones, were immediately evident on the property. Further, the cost of implementing such a system with accuracy is great for wooded tracts. The concern with accuracy was a major consideration since this sampling design was intended to assist in the placement of excavation units. If the sampling units were not accurately placed on the ground, the program might provide an idealized picture of site and artifact density, but it could not reliably be used to locate 10-foot squares within a 15-acre tract.

A simple random sampling scheme was rejected because of the potential for sampling units to cluster, leaving "blank" broad areas of the universe. The simple random design is also labor intensive as each sampling point must be precisely located in the field (Babbie 1973). Instead, a systematic sampling scheme was chosen. The first unit (in this case the location of an auger test) is randomly chosen and thereafter succeeding units are chosen at a regular interval (every Nth element), depending on the sampling fraction desired. This technique is more accurate than simple random sampling, but may be biased by periodicity since choosing the same Nth element every time may fail to reveal equally spaced items (Babbie 1973; Mueller 1974).

To implement this scheme the South Carolina Plane Coordinate grid, already laid out on the ground at 100 foot intervals by Coastal Surveying and Engineering Company, was used. This system was judged to be quite accurate and was one that could be easily reconstructed, regardless of the ensuing development, by future researchers. While it seemed unlikely that the prehistoric component might be regularly patterned, the potential for periodicity did exist with the streets and structures of Mitchelville. The potential bias, however, is reduced by the grid's magnetic orientation, which placed it at roughly a 45° angle to Mitchelville.

It was determined that tests would be placed every 50 feet, except where relocation was necessary to avoid structures, roads, or trees. A 50 foot interval was chosen as a matter of economics, although the 1982 excavations (Trinkley and Zierden 1983) suggested that the Stallings loci might be as large as 50-feet in diameter. The initial test (Auger Test 1) was located at point N 147,850 and E 2,097,800 and a total of 248 tests were excavated at 50 foot intervals proceeding north to south and east to west from that point (Figure 5). The 15-acre tract from the Port Royal southward to the outparcels was therefore sampled at a fraction of slightly over 0.05%. Although this represents an extremely small percentage of the site universe, it was felt to provide

adequate coverage to generate computer artifact density maps and was a cost-effective use of time. The entire auger test survey (including grid preparation, augering, screening, and recording) required only 203 person hours.

Artifacts were originally to be analyzed using broad classes of historic artifacts (architectural [nails, window glass], kitchen [bottle glass, ceramics], etc.) and broad prehistoric pottery styles. The artifact density from the 8-inch auger tests, however, was found to be too low to allow reliable pattern definition at this level of analysis. Consequently, computer SYMAPS were produced for only two artifact categories -- historic and prehistoric artifacts. In addition, brick and shell were both weighed and maps were produced based on these weights (Figures 26-29).

Figure 26 reveals five major prehistoric clusters, at Auger Tests 140, 142, 159, 169, and 225. In addition, a number of less dense prehistoric concentrations are observed throughout the area, with several representing relatively large areal extents. Curiously, the concentration in the area of the 1982 excavations (Auger Tests 153, 154, 165) was not detected at this level of sampling. Conversely, the computer was mislead into creating a very dense area in the vicinity of Auger Test 169 because at that location 17 sherd fragments were recovered. All of these fragments, however, came from only two sherds.

The distribution of prehistoric artifacts suggests that Fish Haul "site" actually consists of a number of discrete occupation loci. It is possible that this situation may represent a series of discrete habitation areas occupied simultaneously, were it not for the radially different radiocarbon dates obtained from two areas (discussed in the following section). This pattern is more suggestive of multiple episodes of short-term occupation in the same general location. It is likely that one or more resources were concentrated in the vicinity and served to make the Fish Haul environs attractive to a number of groups. It is likely that such a distribution would not be recognized in the course of surveying plowed fields, but rather a number of loci would be lumped together, based on proximity, to produce two or three "sites" in the 15 acre field (none of which would probably be recognized as significant, based solely on the surface indications). This auger test not only allows a preliminary glimpse of the settlement system, but also allows specific concentrations to be targeted and isolated for further study. The concentration in the vicinity of Auger Test 47 appears to represent a Deptford occupation, while the Auger Test 140-142 concentrations produced Stallings remains and the cluster at Auger Test 225 produced Thom's Creek pottery.

The distribution of historic artifacts is quite different (Figure 27). Generally, the historic artifacts are found clustered adjacent to the northwestern property boundary, parallel to Beach City Road. Major concentrations were found in the vicinity of Auger Tests 8, 47, 63, 96, 134, 161, and 223. The concentrations adjacent to the marsh area, with the exception of clusters at Auger Test 7 and 33, are quite weak, suggestive of little occupation in this area. Auger Test 7 was placed on the steep slope into the marsh, while Auger Test 33 was actually placed in the marsh. Both produced a quantity of debris, apparently discarded over the bank edge into the marsh. Auger Test 17, also in the marsh, revealed a large worked log, although no artifacts were recovered. Zierden and Calhoun (1983:46) note a similar swamp refuse pattern from the Campfield slave settlement in Georgetown County, South Carolina and Singleton (1980:123) found the same situation at Butler Island, Georgia.

The pattern of historic artifacts closely resembles that expected based on reference to the Mitchelville map (Figure 16). The cluster of structures adjacent to the marsh edge in the vicinity of Auger Test 157, however, was not detected. Reference to Figure 28 reveals that the distribution of brick at Fish Haul again indicates a series of clusters (most noteable at Auger Tests 47, 68, 94, and 148) which closely resemble the alignment of Mitchelville structures. The auger test brick weight data does not as clearly indicate the location of Mitchelville structures as the artifact clusters, probably because not all structures made use of bricks (see Figures 18-21). The data also suggest that even those structures which contained brick made differential use of this building material. No evidence of any structures is found adjacent to the marsh edge.

The distribution of shell at the Fish Haul site (Figure 29) presents a more complex picture because shell may be associated with both prehistoric and historic occupations and because, in the historic period, it is not necessarily associated with structures. Consequently, upon examination of the shell distribution, there appears to be some evidence of shell refuse in the vicinity of the Mitchelville structures (Auger Tests 20, 47, 49, 121, and 224) as well as refuse piles at a distance from the structures (Auger Tests 7 and 101). There may be a slight tendancy for the shell to be found in the rear yard of the structures, rather than in the front yard or in the streets of Mitchelville, although separation of shell refuse of the prehistoric period from similar refuse dating to the historic period is very difficult. At the Butler Point Plantation on St. Simon's Island, Georgia, Fanny Kemble, describing antebellum practices, noted that "great heaps of oyster shells are allowed to be piled up anywhere and everywhere, forming the most unsightly obstructions in every direction" (Kemble 1961:257).

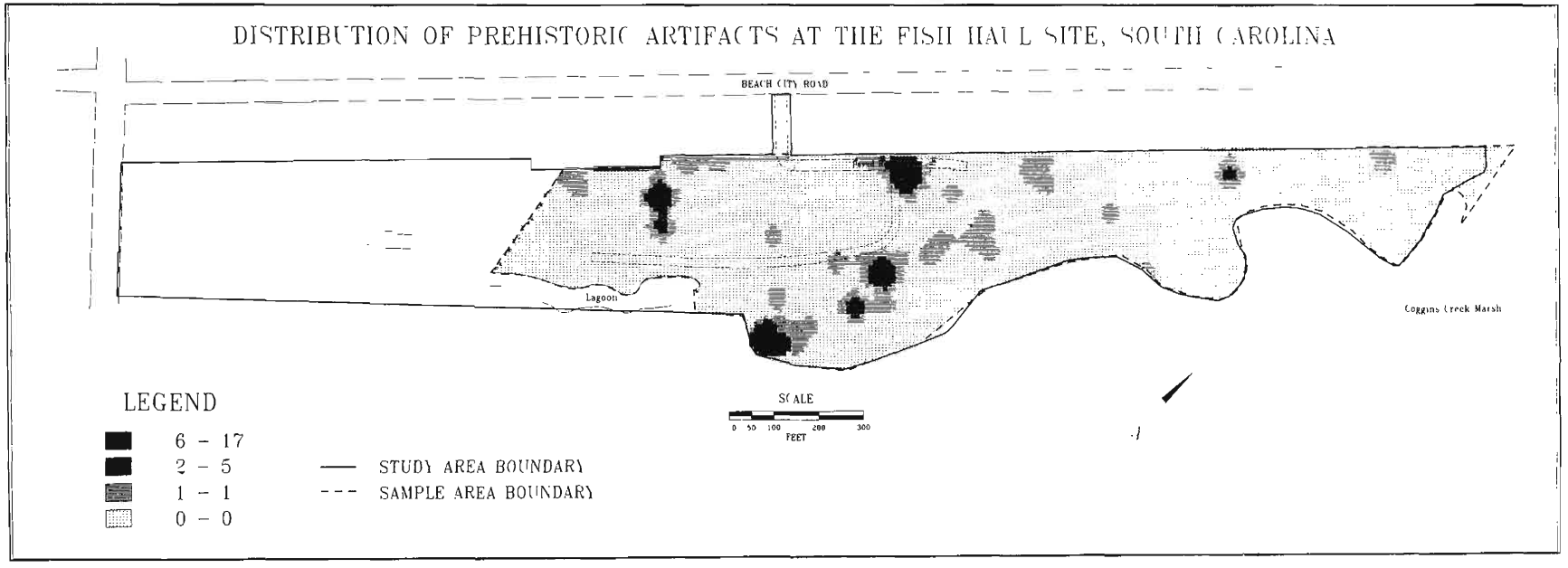


Figure 26. Distribution of prehistoric artifacts.

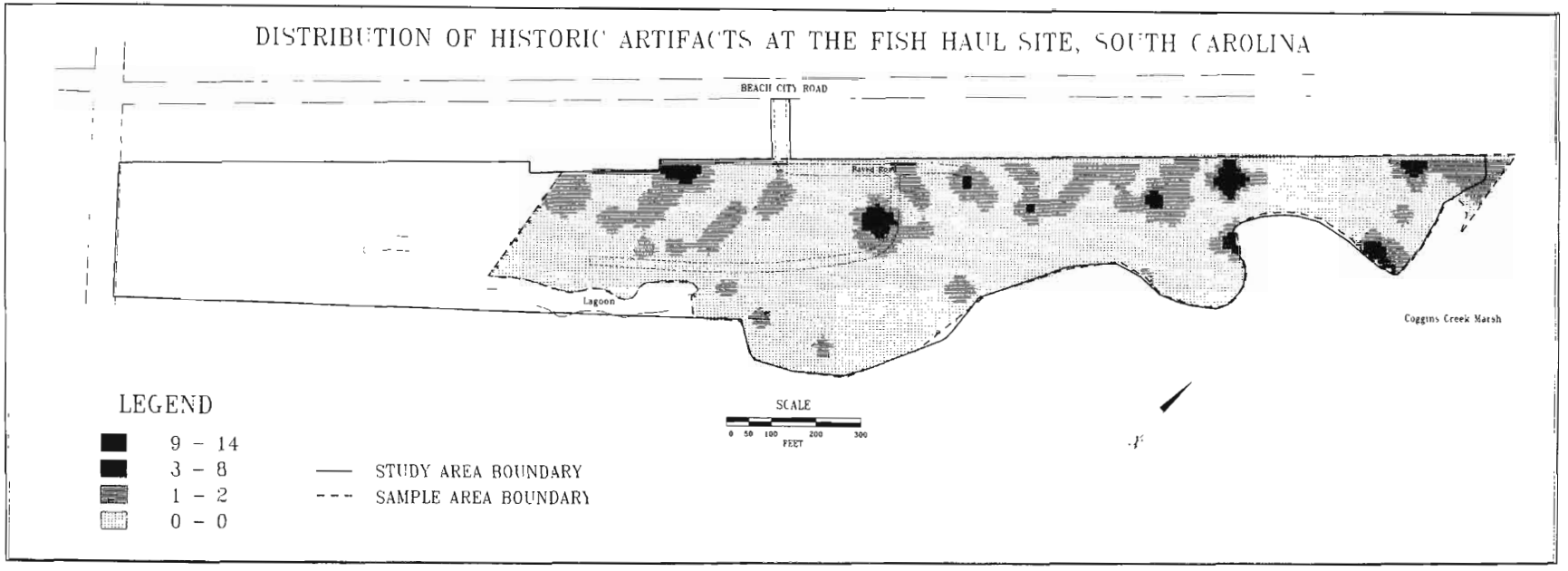


Figure 27. Distribution of historic artifacts.

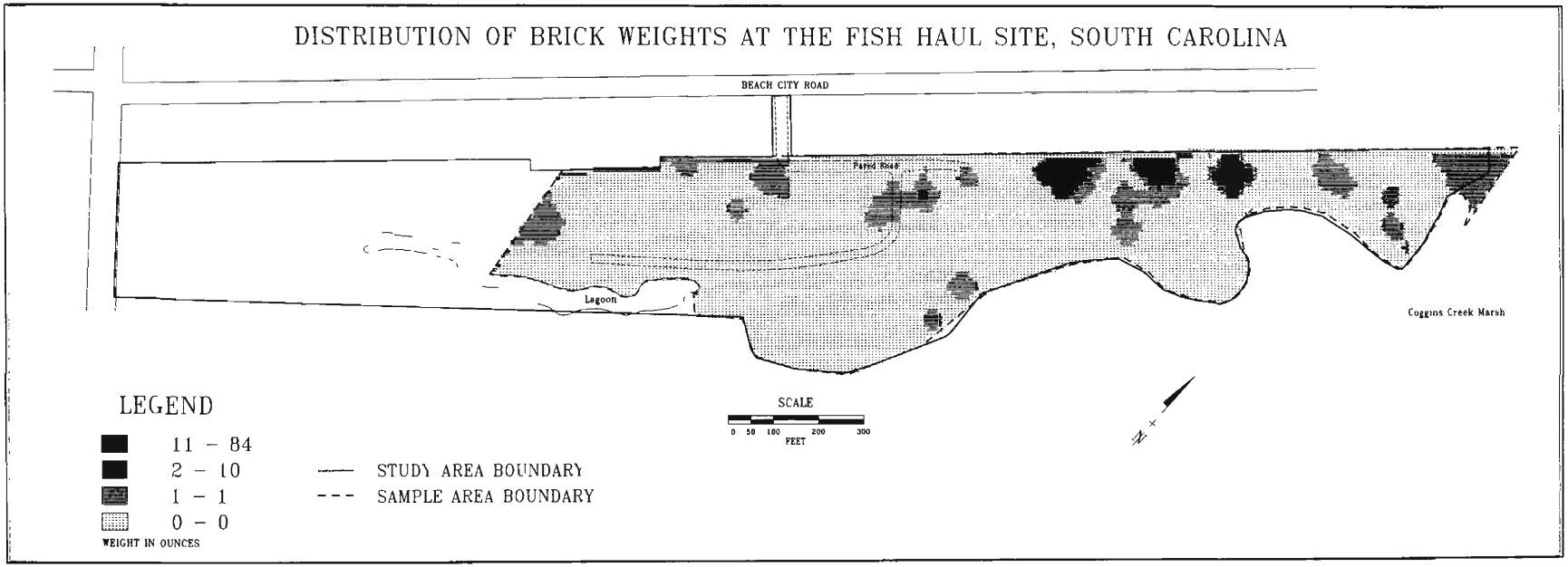


Figure 28. Distribution of brick weights.

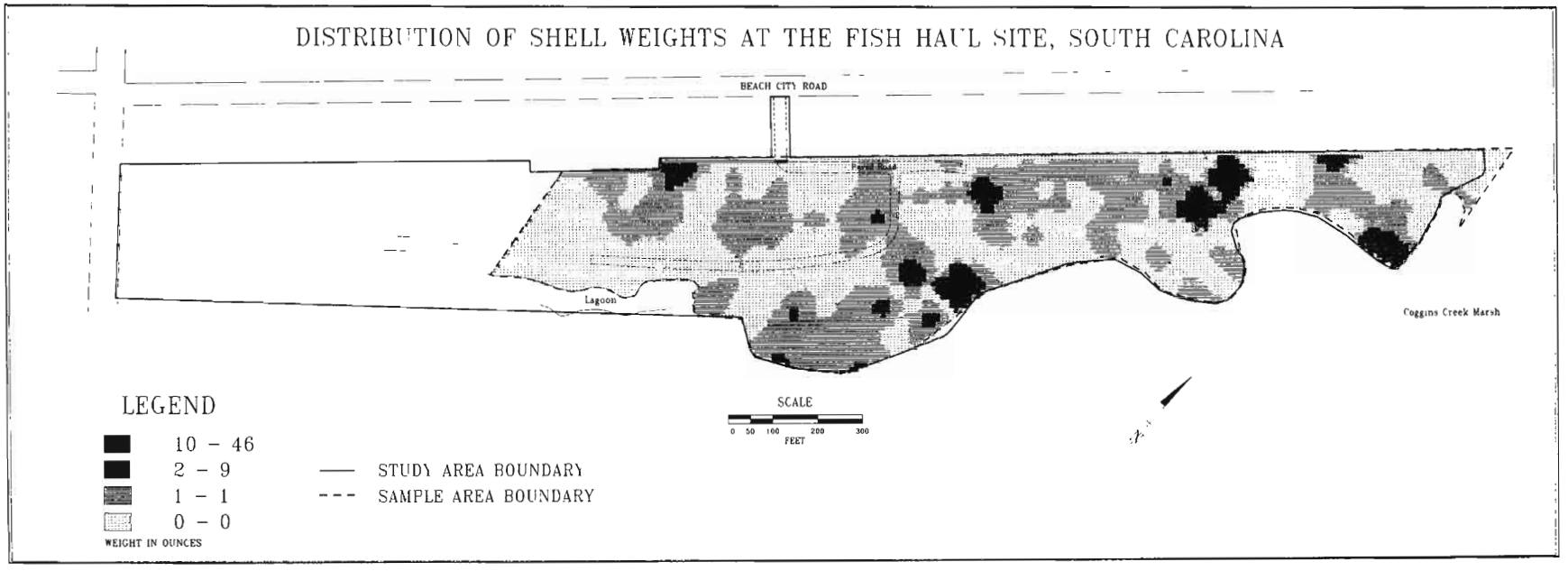


Figure 29. Distribution of shell weights.

Block Excavations

As a result of the auger tests several areas of dense historic or prehistoric artifacts were chosen for more intensive investigation. Some of these areas represent no more than one or two 10-foot squares, while others represent a considerable expenditure of labor and the exposure of large horizontal areas. Regardless of their size, all of the blocks (except the pre-existing 1982 excavation area) were tied into the South Carolina Plane Coordinate grid, which was already established at the site, and the 50-foot auger test grid which was superimposed on the plane coordinate grid. Each block measured 50 feet square and at each corner was a numbered auger test. The auger test at the southeast corner of the grid served to number that 50-foot block. The auger test number, rather than the actual South Carolina Place Coordinates, was used to simplify the system and avoid numbering mistakes.

Within each numbered 50-foot block a modified Chicago grid system was established to divide the block into 10-foot excavation units. The southwest block corner was the ORO point, while the southwest corner was OR50. The first number indicates feet north of the block datum (ORO), while the second number indicates feet right (or east) of this datum. Squares were designated by the coordinates of their southeast corners, with the block number added as a prefix (hence, square 10R10 in Block 50 would become 50-10R10) (see Figure 4). This system allowed excavations to be conducted within relatively small grid limits, which ensured a high degree of grid accuracy with minimal confusion, while also ensuring that future investigators could reconstruct the grid regardless of the development which took place on the property.

Vertical control at the site was maintained through the use of pre-existing elevation datums established by Coastal Surveying and Engineering Company. Elevations are expressed as feet above mean sea level (MSL) as determined by reference to available USGS survey monuments. This system allows widely separated areas of the site to be precisely compared and the vertical controls can be easily re-established in the future.

Excavation, except for the removal of the near sterile upper zones of the aboriginal blocks (129-141 and 1982) with a backhoe, proceeded by hand with all soil mechanically screened through ¼-inch (0.6 centimeter) mesh. Screen loads were sorted in the field, with all materials from a single provenience bagged together and assigned a single field specimen (FS) number. The FS numbers were used for initial inventory control and as a preliminary catalog number for items removed for special study. Bricks, mortar, and shell (primarily from the historic occupation) were quantified by

weight in the field and discarded. Soil and shell samples were judgementally retained from the unit excavation.

Artifacts were washed in the field and cataloging was completed after the conclusion of field work. These materials are curated by The Environmental and Historical Museum of Hilton Head Island under Accession Number 1986.1 and catalog numbers ARCH 1-429. All field notes and photographs, prepared to archival standards, are also curated by this group, although Chicora has maintained copies and all analysis notes.

Stratigraphy throughout the site area was fairly simple and generally uniform. Zone 1 is a dark brown humic sand which represents the site's A horizon and which is from 0.8 to 1.0 foot in thickness. The soil is a very friable fine sand which evidences abundant roots. Evidence of previous cultivation, in the form of plow scars and ridges, was observed only in the 1982 block. This zone, depending on location in the tract, may be nearly sterile or may contain abundant brick, shell, and historic remains.

Zone 2 approximately correlates to the soil's C horizon and consists of a tan, loose, friable sand which grades into a yellow sand. Zone 2 was divided into arbitrary 0.3 foot levels in those blocks where excavation continued below the upper-most 0.3 foot of Zone 2. The upper 0.3 to 0.5 foot of Zone 2 represents a leach zone from the overlying humic sands. As the depth increases the humic content noticeably decreases.

The 39-40-47-48 block encompasses one 10-foot and three 5-foot squares placed to examine further the high density historic artifacts, brick and shell. The 91-92 block includes two 10-foot and two 5-foot squares to explore further the dense shell revealed by the auger tests and to obtain additional information on the historic feature revealed by the 1982 excavations in Test Pit 2. The 110-123 block, which consists of three 10-foot and two 5-foot squares, was placed to explore a possible historic structure which was evidenced by a mound of brick rubble. The 160-161 block of eight 10-foot and six 5-footsquares was also laid out to examine a dıscrete structure. The 130 block, which includes three 10-foot and one 5-foot squares was orıgınally developed to investigate a quantity of human bone fragments found in S.C. Institute of Archaeology and Anthropology Auger Test 13 and bone fragments found in Chicora's Auger Test 130. A single 10-foot square was excavated ın the 177 block in the hopes of obtaining additional information on historic structures thought to be in the general area. The 218 block excavation of two 10-foot squares and a single 5-foot unit was laid out to investigate further the concentration of shell and historic and prehistoric artifacts in this general vicinity. The 129-141 block, consistıng of six 10-foot

squares, was excavated to explore the concentration of prehistoric remains in the vicinity of Auger Tests 140 and 142. Likewise eight additional 10-foot squares were opened adjacent to the original three 10-foot units dug in 1982, increasing the total excavation in that block to 11 10-foot squares.

All of these blocks are discussed in more detail in a following section and at this point it is sufficient to indicate that this work explored a total of 3765 square feet of ground, of which 1400 square feet represent primarily prehistoric occupation areas, 1825 square feet represent primarily Mitchelville occupation, and 540 square feet represent both light prehistoric and historic occupations. Including the 1982 excavations, over 4100 square feet of the Fish Haul tract have been intensively examined. In spite of the quantity of information this work has produced, only 0.6% of the tract has been subjected to intensive data recovery and large areas of both prehistoric and historic occupation remain unexamined. Of particular interest would be the further examination of the prehistoric remains in the vicinity of the 140, 150, 169, and 225 blocks and the historic remains in the area of the 47, 63, 68, and 94-96 blocks.

Excavation in the historic blocks was terminated at the base of Zone 2, Level 1, based primarily on the declining artifact densities and the desire not to truncate any post holes or features which might be present. Generally post holes and features could not be isolated at the base of Zone 1 because of a combination of cultural (heavy mottling) and natural (humic leaching) factors. The base of Zone 2, Level 1 was troweled, photographed with color slide and black and white negative film, and plotted at a scale of 2 feet to 1 inch. Profiles were drawn at the same horizontal scale, but with an exaggerated vertical scale of 1 foot to 1 inch.

Excavation in the prehistoric blocks generally began with the Zone 2, Level 1 soils left by mechanical stripping and continued to a maximum depth of Zone 2, Level 6. Generally excavation was terminated by the base of Zone 2, Level 5. The prehistoric squares were troweled, photographed and plotted as often as warranted by the features found in each unit, but were minimally recorded at the completion of the excavation. Plan and profile drawings used the same format as discussed above for the historic blocks.

Features and post holes were photographed and plotted at the base of level in which they were first observed and complete excavation and recordation took place before the unit excavation continued to the next zone or level. Most features were bisected, with the first half being removed by arbitrary levels, the profile drawn and photographed, and then the remaining portion excavated by any apparent zones.

Minimally all soil from features was dry screened through ¼-inch (0.6 centimeter) mesh. When the feature evidenced a dark humic or organic fill two samples (5 gallons [19 liters] each by volume) were collected for waterscreening through 1/16-inch (0.16 centimeter) mesh and water flotation. The waterscreening was conducted in the field, while the flotation was conducted in Columbia after completion of the field work. Soil, shell, and handpicked charcoal samples were collected from features where appropriate.

Test Pits

Toward the completion of the field project a decision was made to obtain a larger sample from another Mitchelville structure, suggested by the distribution of brick and historic artifacts in the vicinity of Auger Tests 94-96. A series of twenty 1.5 foot square shovel tests were excavated at 10 foot intervals to further document this area. Soil from each test was screened through ¼ inch (0.6 centimeter) mesh. Each test produced historic artifacts, including ceramics, glass, nails, and buttons, in addition to abundant brick and shell. Test Pit 10 evidenced articulated brick and is apparently in the immediate vicinity of the structure. This study clearly documents the presence of another Mitchelville structure, which appears to be in very good condition.

Archaeological Remains

This section will briefly review the lay-out and organization of the various blocks, as well as the features and stratigraphy revealed within each area. Information on the artifacts recovered is contained in other chapters and the prehistoric pottery is ennumerated in Table 3 of the following chapter. The radiocarbon dates obtained from this site are reported in uncorrected years.

39-40-47-48 Block

This block consists of squares 39-OR5 (5x5), 40-45R5 (5x5), 47-OR50 (5x5), and 48-40R50 (10x10) excavated around Auger Test 47 in the hopes of understanding the large quantity of mortar (18 ounces [509 grams]) and brick (34 ounces [962 grams]) recovered from that one auger hole. Other artifacts identified from that test were 10 nails, a single small prehistoric sherd, and a kaolin pipestem. The immediate suggestion was that the auger test had penetrated

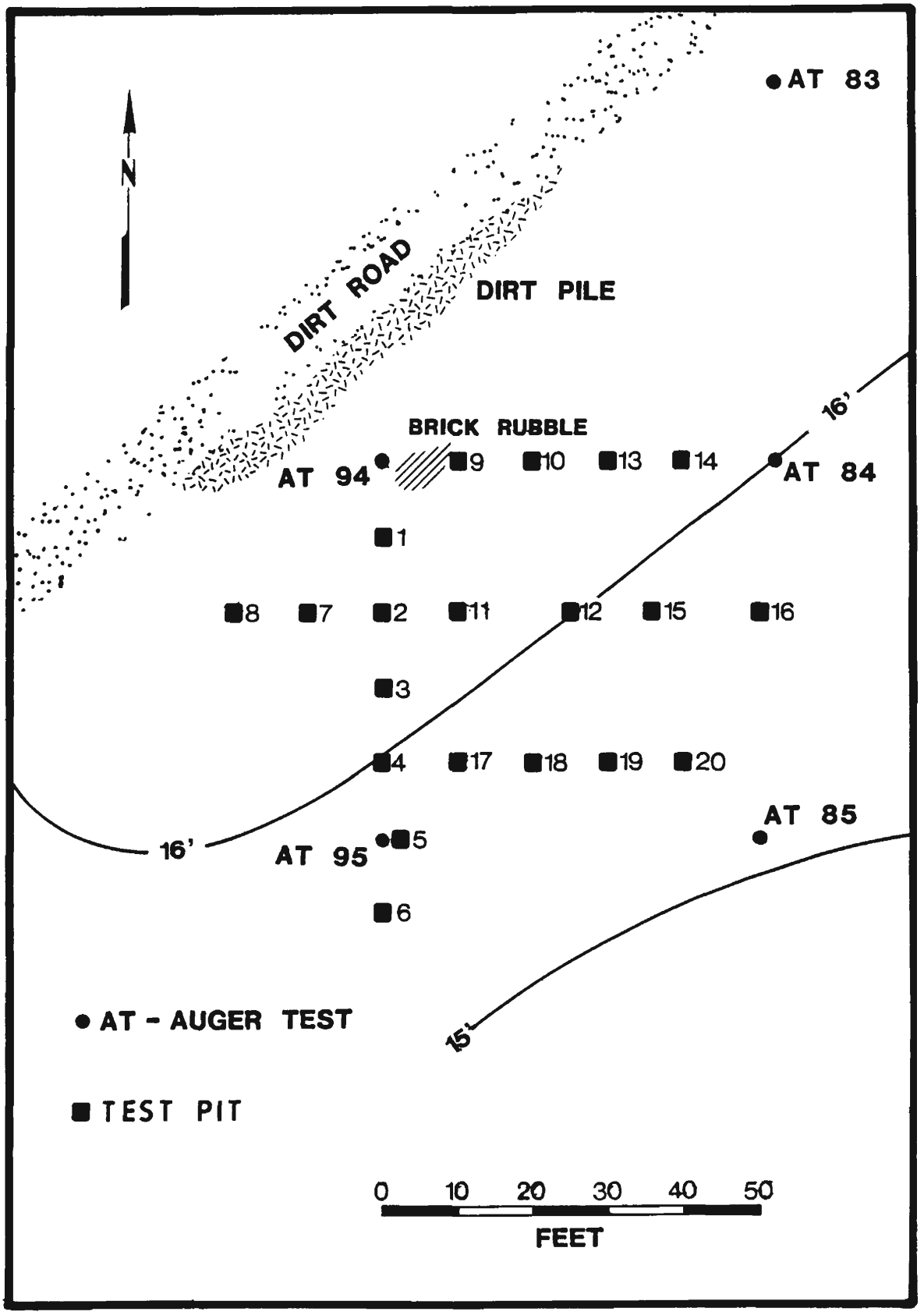


Figure 30. Test Pits in the vicinity of Auger Test 94.

the vicinity of a brick feature, probably a chimney footing. Excavation of these units produced 400 pounds (180 kilograms) of shell and 3.5 pounds (1.6 kilograms) of brick or 2.3 pounds (1.0 kilograms) of shell per cubic foot (0.03 cubic meter) and 0.2 pound (0.1 kilogram) of brick per cubic foot (0.03 cubic meter).

The excavations revealed a lens of tabby mortar rubble which covered about 60% of the area opened. This rubble consisted of a tabby shell mortar with abundant wattle impressions which was not in situ, but which appeared to reflect wall fall. Further excavation revealed two historic features (13 and 14) and two post holes (Figure 31). Feature 13, which was centered at 470R50, consisted of a broad, shallow basin of light tan sand, shell, and mortar measuring 7.5 by 6.0 feet (2.3 by 1.8 meters). At a depth of about 0.3 foot (10 centimeters) the pit bottomed out, except for a 3.7 by 1.5 feet (1.1 by 0.5 meter) trench oriented northwest-southeast. This straight sided pit contained a tin can in its upper zone and only mortar at its base (Figure 32). This feature appears to be a shovel dug footing which has been robbed. The larger, shallow basin around the footing may have been a by-product of the robbing, or may simply reflect a shallow, midden filled depression.

Feature 14 was situated about 6.0 feet (1.8 meters) to the northeast and represents a robbed builders trench running northwest-southeast, parallel to the footing in Feature 13. The exposed length of this trench was about 3.5 feet (1.1 meters) and it was 1.4 feet (0.4 meters) in width and 0.6 foot (0.2 meter) in depth (Figure 33).

It appears that this block has partially exposed the remains of a wattle and daub structure removed sometime during the late nineteenth century, probably to allow easier cultivation since it is unlikely the structure contained significant amounts of brick, architectural hardware or other salvagable items. Colin Brooker (personal communication 1986) notes that similar tabby mortar wattle and daub construction was discovered at Structure VI from the Callawassie Island slave settlement. This structure measured about 10.5 by 10.0 feet (3.2 by 3.0 meters) on its exterior. Brooker characterizes this as an eighteenth century form of slave architecture which was not thought to have persisted into the nineteenth century. Features 13 and 14 from the 39-40-47-48 block, combined with evidence from other blocks, suggests that this architectural form persisted into the mid-ninteenth century. Dubois notes that in the West Indies slaves constructed houses by "driving four posts into the ground and weaving the walls so as to make a room 10x15 feet" (Dubois 1901b:486). This archaic architectural tradition may have been kept alive by the continued, albeit illegal, importation of Africans into the lowcountry during the early to mid-nineteenth century.

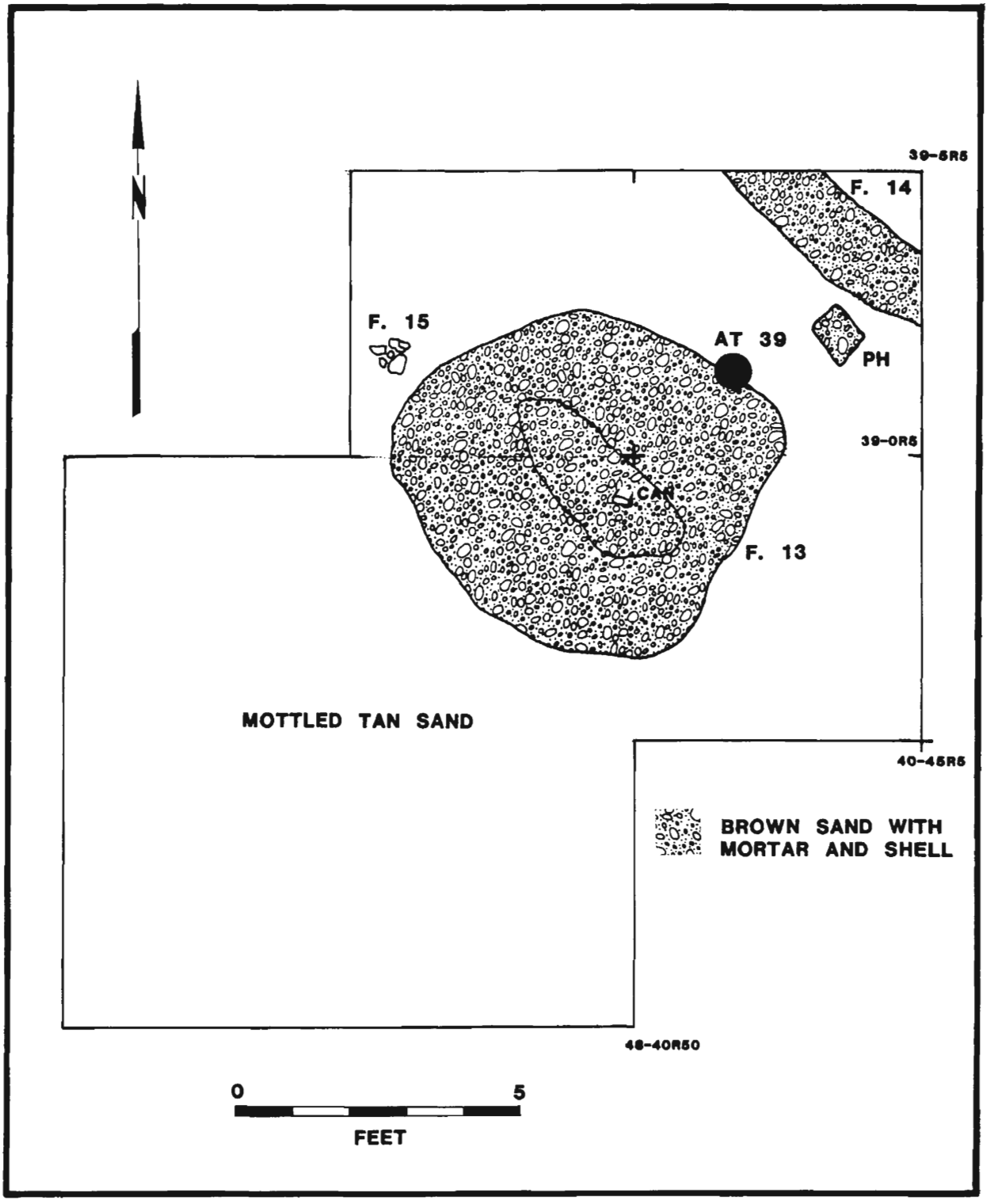


Figure 31. 39-40-47-48 block excavations.

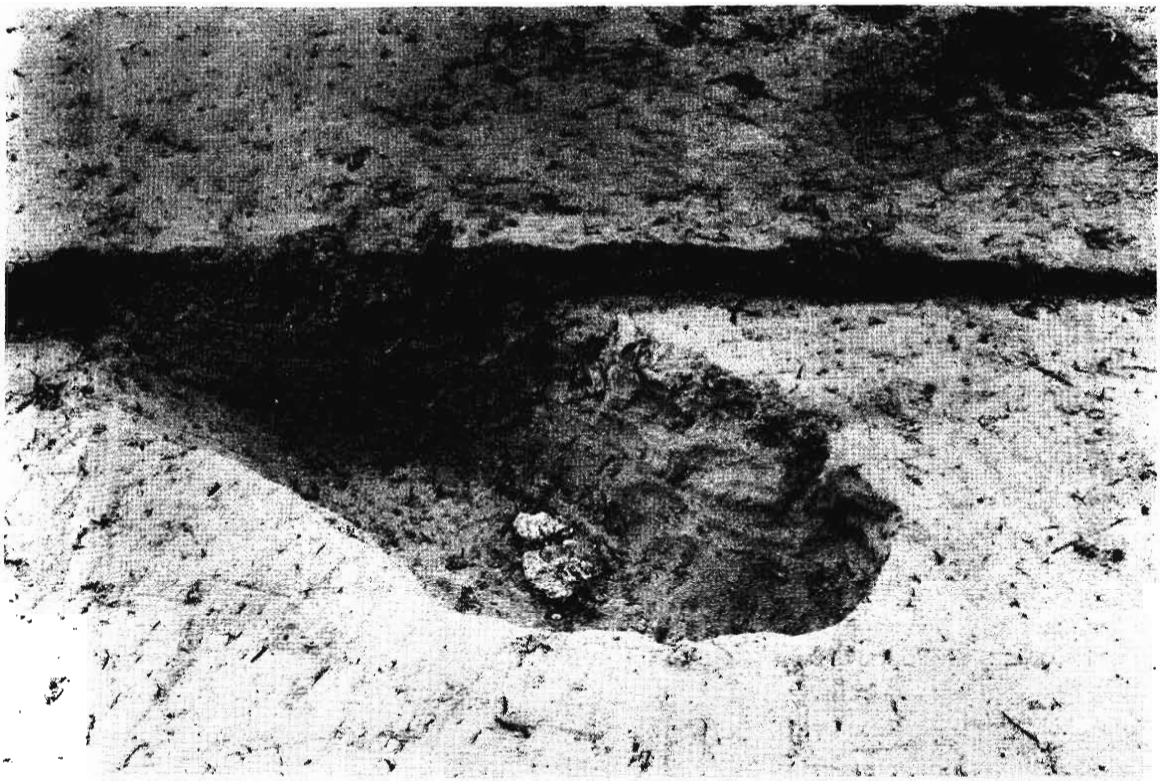


Figure 32. Feature 13, footing and associated stain, south half excavated. View is to the north.

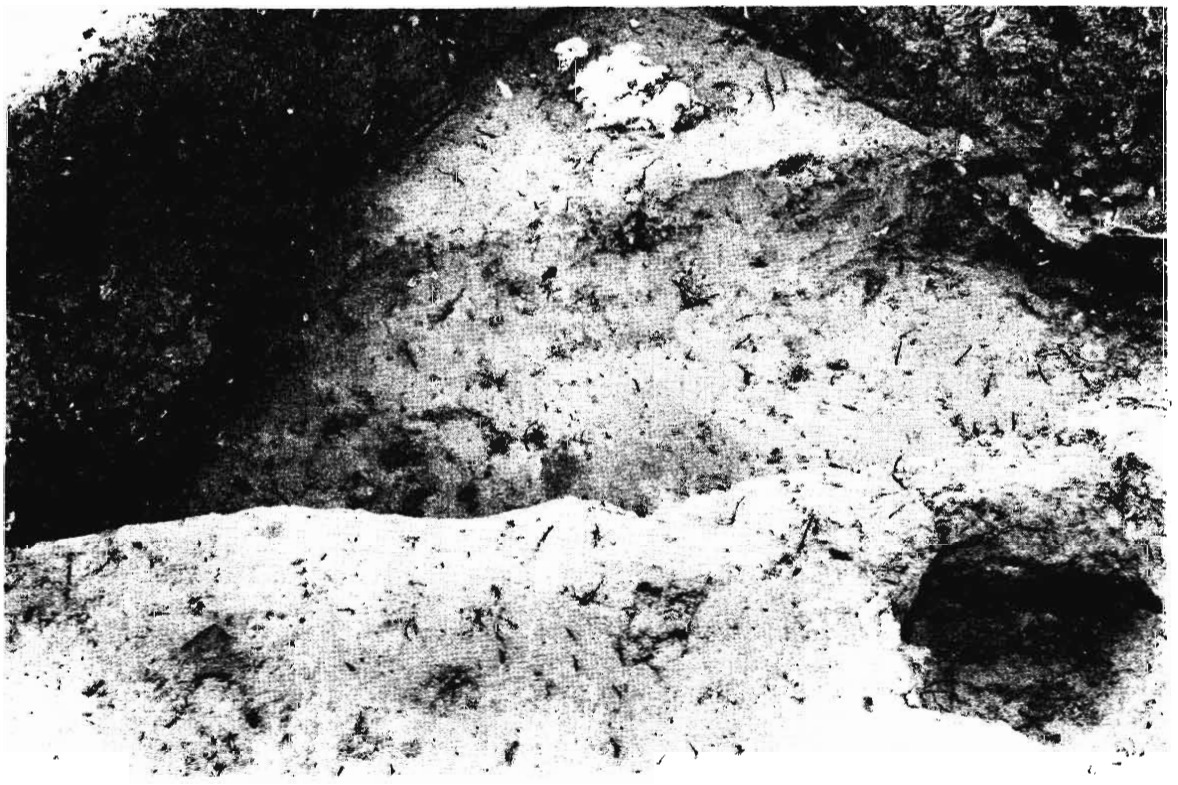


Figure 33. Feature 14, wall trench, excavated. View is to the northeast.

A single prehistoric feature was identified at the base of Zone 2. Feature 15, centered at 47-1.8R45.6, represents a cluster of Deptford Plain sherds in an area about 0.8 feet (0.2 meter) in diameter and 0.2 foot (0.1 meter) in depth.

91-92 Block

The 91-92 block consists of squares 91-OR5 (5x5), 91-OR10 (5x5), 92-4OR10 (10x10), and 92-3OR10 (10x10) which were excavated to explore the dense shell midden on the marsh bluff, first noted by Trinkley and Zierden (1982) and further delineated by the auger tests. The excavation revealed a low density of mortar and brick (less than 0.1 pound [0.04 gram] per cubic foot [0.03 cubic meter]), although several mortar fragments appear to represent tabby mortar from a wattle and daub wall (this technique was previously discussed for the 39-40-47-48 block). Shell was abundant, accounting for 3.8 pounds (1.4 kilograms) per cubic foot (0.03 cubic meter). Zone 1 in all units contained more shells and darker, organic soil than the underlying Zone 2. Six post holes and two features were identified by this work (Figure 34).

The post holes form no recognizable pattern, although all but one are square, distinct, and have depths of up to 1.0 foot (0.3 meter). At least two, based on ceramics found in their fill, postdate the deposition of Zones 1 and 2. Feature 10 is a large (10.0 x 10.4 foot [3.0 by 3.2 meter]) circular pit about 2.1 feet (0.7 meter) in depth. Three distance zones were observed. The uppermost zone was black sand with abundant shell -- a fill very similar to the overlying Zones 1 and 2 soils. The underlying Zone 2 feature fill was a tannish yellow sand lens or cap, overlying more shells, black sand, and abundant charcoal. Zone 2 was found adjacent to the feature's west wall and covered only about one-quarter of the feature. Feature 11 was an oval pit bisected by the 91-N5 wall. The exposed portion measured about 3.5 by 1.8 feet (1.1 by 0.6 meters) and was found to be 1.2 feet (0.4 meter) in depth. The uppermost zone consisted of unit Zone 2 slump, while the feature fill was black to dark brown loamy sand with charcoal. Both Features 10 and 11 contained abundant fish bone and many of the historic ceramics found in the feature fill matched or cross-mended with specimens from Zones 1 or 2 of the excavation units.

The 91-92 block appears to represent a secondary refuse midden deposited adjacent to the marsh sometime after the early nineteenth century. The refuse contains a variety of items, including large quantity of ceramics. Among these ceramics are the site's only abundant creamware and pearlware examples, which suggests that the source of this trash may have some temporal depth. The ceramic motifs and artifacts suggest the source was also a higher status occupation.

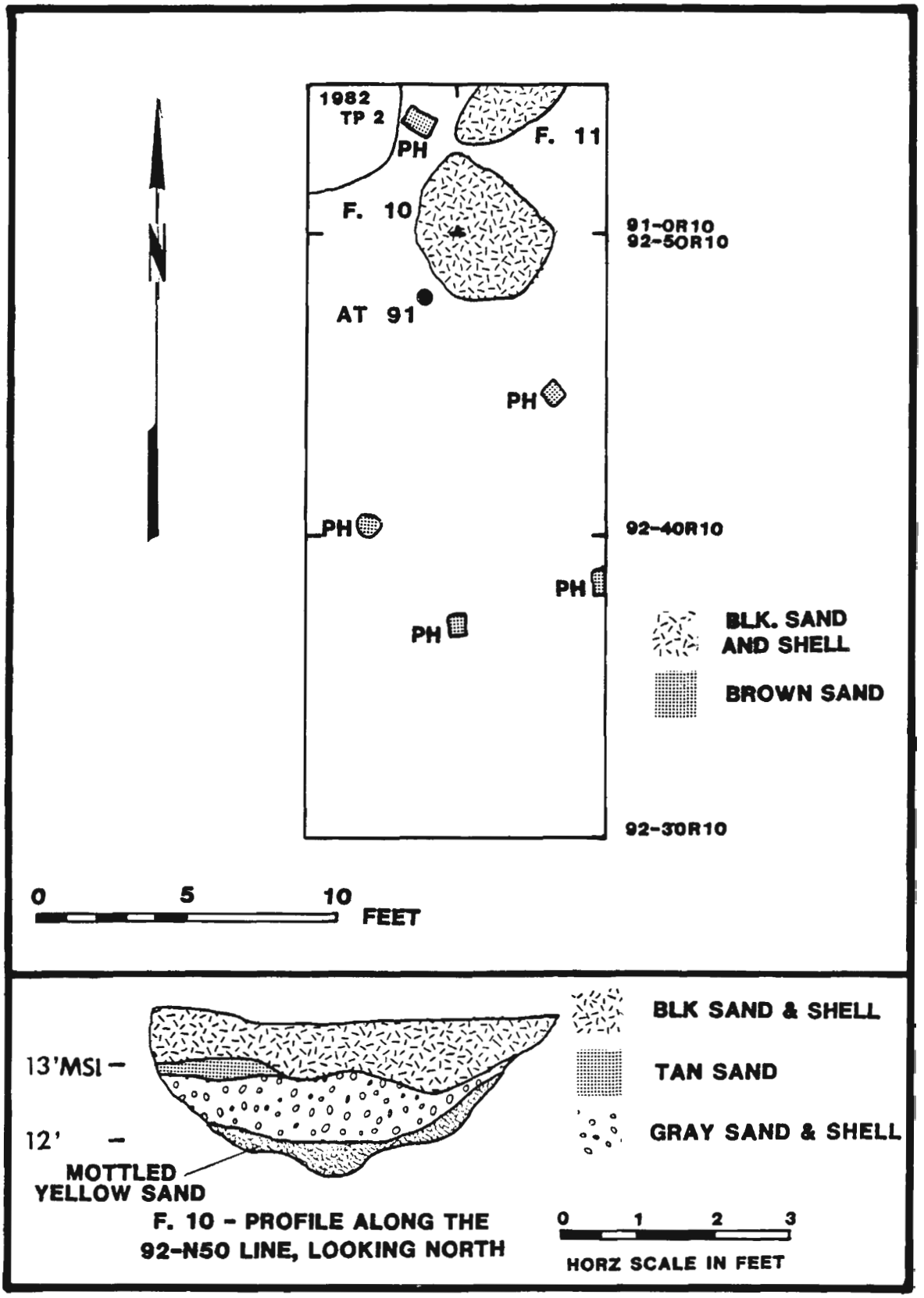


Figure 34. 91-92 block excavations and Feature 10 profile.

Although mends are found throughout the proveniences and features, no completely reconstructable vessels were recovered, which suggests that this midden is a secondary deposit. Evidence will be developed in a following section that this deposit represents the Mitchelville dump, operated from 1862 to 1867.

Feature 10 was dug through the midden, into the underlying tan to yellow Zone 2 soil and a hot, oxidizing fire was built (based on the ash lenses and small pieces of charcoal). The feature was apparently used as a cooking pit, with the Zone 2 lens perhaps representing the remnants of a sand cap used to maintain the heat of the coals. Such a pit may have been used to steam shellfish, although a number of foods might be similarly prepared, including fish, sweet potatoes, which were frequently roasted, and "army [or baked] beans." Eldridge describes their preparation,

> [a] hole is previously dug in the ground, not after the manner of a post hole, but say two feet wide by three or four long and two or more feet deep. In this a wood fire is built, and kept burning freely till the ground has become sufficiently heated and the embers have ceased to smoke. The wood has been reduced to live coals. The oven is now ready for the beans. They are then further prepared . . . and being placed in camp kettles . . . are with tender hands placed . . . on the hot coals and pieces of boards laid across the top and covered with dirt to keep in the heat. They remain there the proper length of time (Eldridge 1983:971-972).

This operation would explain the Feature 10 fill and the presence of burned and unburned cross-mended ceramics.

Feature 11 presents a somewhat less clear picture, although the ceramics found in its fill are identical to those found in the excavation units and Feature 10. This indicates that the feature postdates the midden deposition. The feature's function, at present, is undetermined.

110-123 Block

Five squares -- 110-35R10 (10x10), 123-40R50 (10x10), 123-30R50 (10x10), 123-25R50 (5x5), and 123-20R50 (5x5) --

comprise the excavations found in the 110-123 block, which was placed to bisect an obvious surface brick pile. Brick density is very high - 1.5 pounds (0.7 kilograms) per cubic foot (0.03 cubic meter), while combined mortar and shell represented a lower density -- 0.6 pound (0.2 kilogram) per cubic foot (0.03 cubic meter). Fill from these squares revealed abundant historic remains from the period of Mitchelville.

Upon excavation of the brick pile, a single architectural feature was identified -- that of a poured tabby chimney footing (Feature 3). Further excavation revealed 10 post holes and another historic feature of undetermined function (Feature 27)(Figure 35). Excavation was continued to the south by two 5-foot squares to explore a depression about 20 feet from the brick pile. The excavations revealed the depression to be the remnants of a large tree throw and no further work was conducted in this area.

The architectural remains and artifacts recovered from this block clearly indicate that a mid-nineteenth century structure has been encountered. Of particular interest is the information this excavation can provide concerning the tabby chimney and the events surrounding its use. The chimney footing is constructed of a poor quality ground pour tabby. The exterior chimney wall measured 4.2 feet (1.3 meters) in length and 0.9 foot (0.3 meter) in width, while the interior or hearth footing measured 5.2 feet (1.6 meters) in length and 0.7 foot (0.2 meter) in width. The side walls, approximately 3.0 feet (0.9 meter) in length and the same width as the interior wall, angle inward from the interior to the exterior wall. Rubble from the chimney, including a large exterior wall fragment which had fallen over to the southwest, clearly reveal the chimney construction to have been a tabby mortar wattle and daub. Because the chimney was constructed from a poured base there were no corner posts typical of stick and mud chimneys (see Gonzales 1924:228). However, either as a brace or a later repair, two 0.8 foot (0.2 meter) square timbers were sunk 0.9 to 1.0 foot (0.2 to 0.3 meter) at each of the exterior corners (see Drucker and Anthony 1979: Figure 32 for a similar standing example of this technique).

At some later date, apparently as a repair, three bricks were placed in the crumbling northeast exterior corner of the chimney. At the time of this repair the northeast corner post was no longer in place since the three bricks, laid edge to edge, partially cover the post hole. It may be that the edge support rotted off just below ground level and this resulted in damage to that corner. The bricks, which were not mortared, appear to have been added to repair the damage and also to provide a firm footing for either the rotten timber or a replacement piece. It is unlikely, however, that

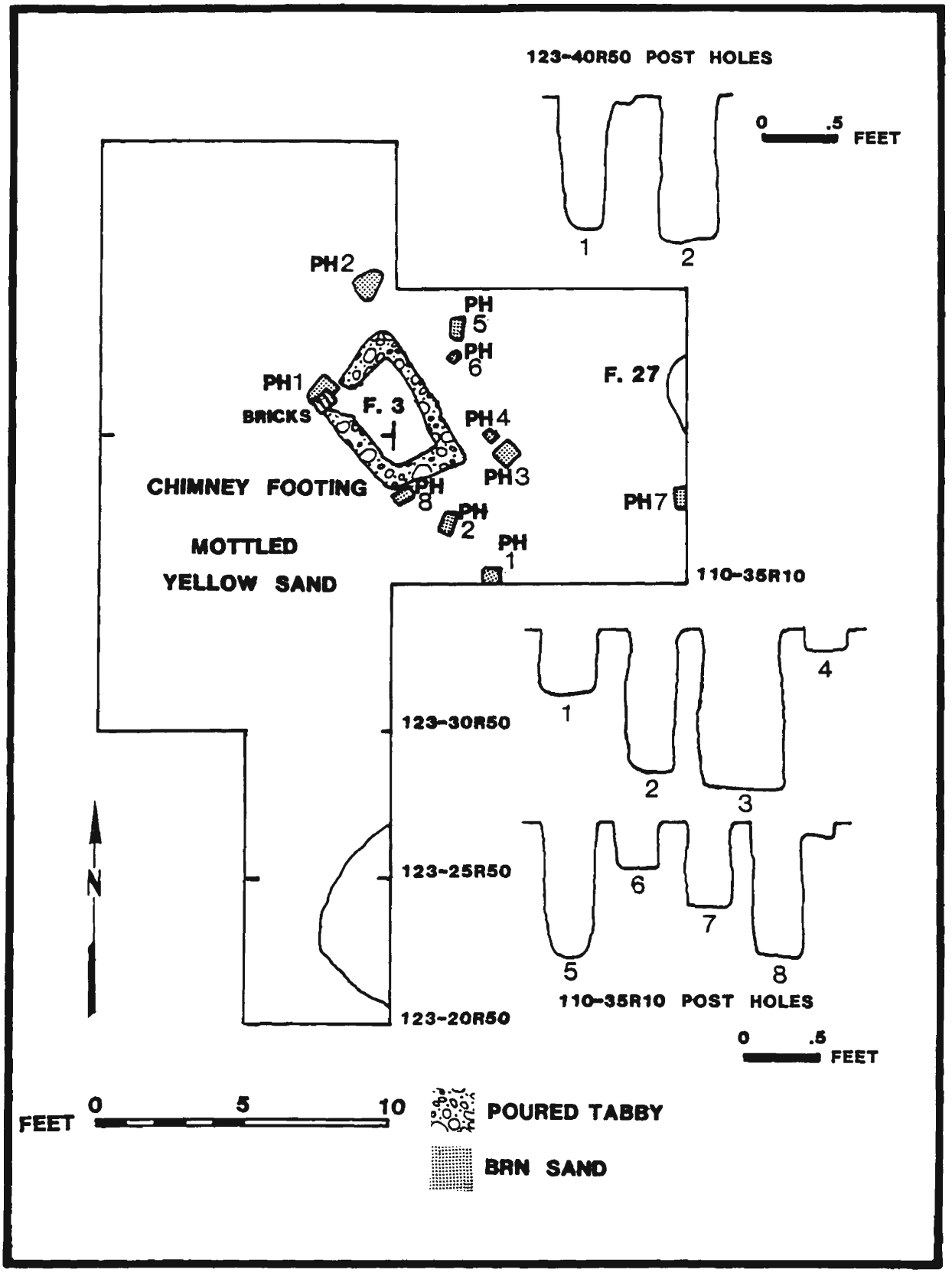


Figure 35. 110-123 block excavations.

the chimney was as serviceable after these makeshift repairs (Figure 36).

Feature 27, bisected by the 110-R10 wall, measures 2.5 feet (0.8 meter) in length and 0.8 foot (0.2 meter) in width and was exposed by the excavations. The pit had straight sides, a flat bottom, and was about 1.0 foot (0.3 meter) deep. The only historic artifacts found in the tan sand fill were two nails and a single lead shot. No function can be attributed to this feature at the present time.

129-141 Block

This prehistoric block consists of six 10-foot squares: 129-0R10, 129-10R10, 129-10R20, 129-20R20, 141-0R50, and 141-10R50 (Figure 37). These units were placed to explore more fully a concentration of prehistoric remains identified by the auger test survey and the first unit investigated, 129-10R10, revealed a Stallings feature at the base of Zone 2, Level 2. The Zone 1 humic sand from that square revealed only occasional historic remains (one glass, three ceramics, one pipe bowl, and two small prehistoric sherds), so the remaining five squares were mechanically stripped to the upper portion of Zone 2.

Work in this block revealed a significant Stallings occupation, clustered to the north, and contained primarily in Zone 2, Levels 2-4. Two post holes were found in 129-10R20 at the base of Zone 2, Levels 2-3 and three post holes were recovered from 129-20R20 at the base of Zone 2, Level 2.

Seven Stallings phase features were recovered during the investigation of the 129-141 block, with four being found in one square -- 129-20R20. This is the northern most unit excavated and this distribution is identical to that anticipated by the computer mapping of the auger test survey data.

Feature 12 is a poorly defined Stallings pit which measured about 2.8 feet (0.8 meter) in diameter and had a depth of 1.04 feet (0.3 meter). The pit was centered at 129-18R0.8 and was first identified at the base of Zone 2, Level 2 (13.540 feet MSL [4.17 meters MSL]). The fill consisted of a mottled tan to brown sand with abundant flakes and a small quantity of charcoal.

Feature 16 was exposed by backhoe excavation and was consequently somewhat disturbed prior to excavation. The pit was oval to circular in form with straight sides and a relatively flat bottom, measuring about 1.2 feet (0.4 meter)

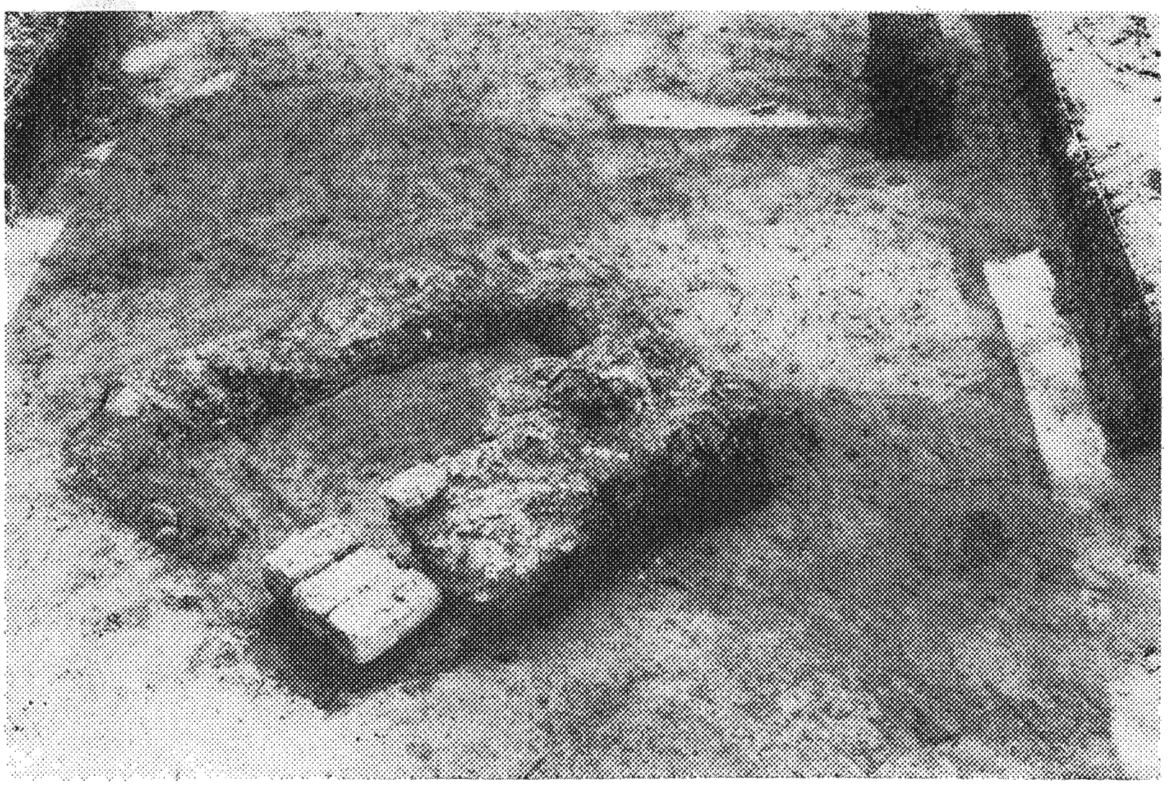


Figure 36. Feature 3, chimney footing, in the 110-123 block. View is to the east.

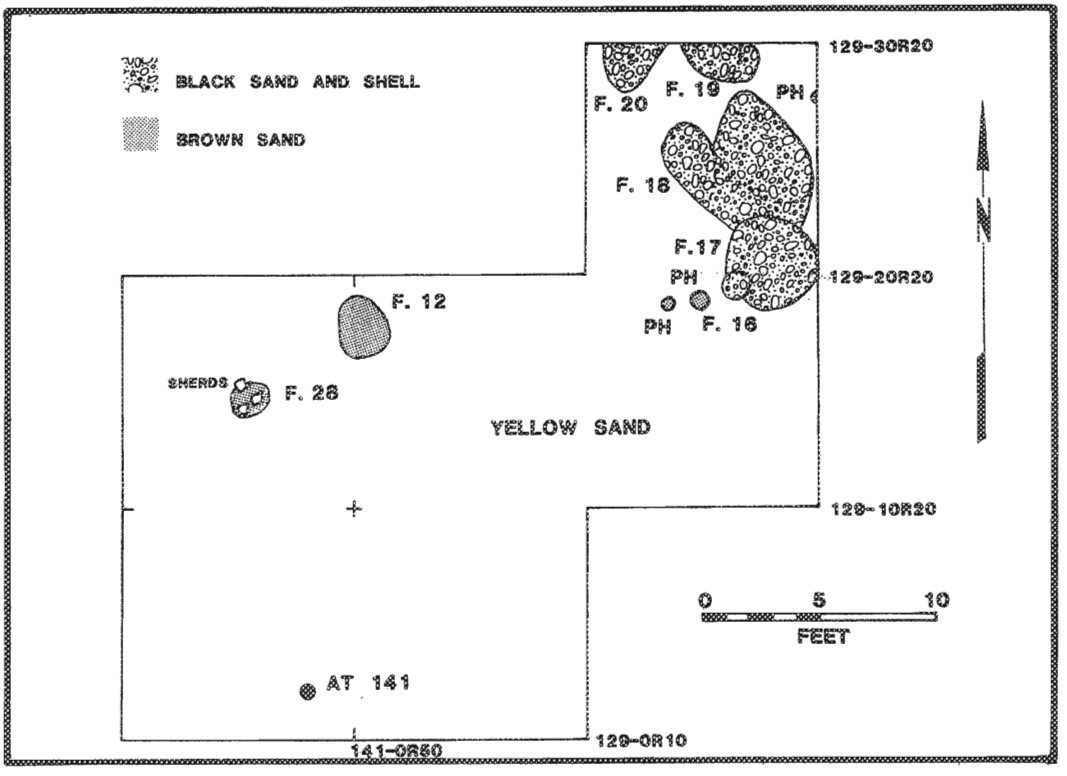


Figure 37. 129-141 block excavation.

in diameter and 0.5 feet in depth (0.2 meter). The center point of the pit was 129-19.5R16.5 and the feature originated at the base of Zone 2, Level 1 (13.47 feet MSL [4.14 meters MSL]). The feature fill consisted primarily of marsh periwinkles with smaller quantities of clam, oyster, and ribbed mussel in a black sand matrix.

Feature 17, centered at 129-20.5R18.5, was found at the base of Zone 2, Level 2 (13.54 feet MSL [4.17 meters MSL]). The pit measured 4.2 by 4.0 feet (1.3 by 1.2 meters) and was 2.5 feet (0.7 meter) deep. The pit was found to be composed of two zones. The upper, termed Zone 1, consisted of abundant oyster and clam, with lesser quantities of knobbed whelk, cockle, stout tagulus, ribbed mussel, and periwinkle in a dark gray sandy matrix. Below Zone 1 was a zone thought to represent soil mixing from the original pit excavation. Shells from this lower zone included only occasional oyster, clam, ribbed mussel, and stout tagulus. A total of 92 pounds (41.7 kilograms) of shell were recovered from this feature, which may have served as a shell fish steaming pit.

Feature 18 is a large sand and somewhat amorphous shellfish steaming.pit used during the Stallings phase (Figure 38). Charcoal from this feature gave an age of 3280±80 years: 1330 B.C. (Beta - 16922). The pit measures about 5.5 by 6.0 feet (1.7 by 1.8 meters) and 2.9 feet (0.9 meter) in depth. The feature originated at the base of Zone 2, Level 2 (13.63 feet MSL [4.19 meters MSL]) and was centered at 129-24R17. Excavation revealed three distinct zones. The uppermost was a level of loose shell including primarily oyster and clam, with minor evidence of ribbed mussel, stout tagulus, and crab in a black loamy sand matrix. The middle zone consisted of a tan sand and ash lens which contained minor amounts of burnt oyster, clams, ribbed mussel, knobbed whelk, periwinkle, stout tagulus, and crab. The bottom zone consisted of abundant shell and tan sand. Much of the shell from this zone, including oyster clusters, clam, ribbed mussel, knobbed whelk, stout tagulus, cockle, barnacles, and crab is cemented with ash in large chunks. A total of 243.5 pounds (110.3 kilograms) of shell were recovered from this pit, with 44.6% coming from Zone 1, 22.3% coming from the Zone 2 sand lens, and 33.1% coming from the lowest deposit, Zone 3. This feature appears to represent a reused shellfish steaming pit, similar in form and function to those documented at Thom's Creek phase sites such as Lighthouse Point and Stratton Place (Trinkley 1980c).

Feature 19 consisted of a shallow basin, with an intrusive post hole, which originated at the base of Zone 2, Level 2 (13.66 feet MSL [4.20 meters MSL]). Located at 129-19.5R15.5, the pit measured only 2.8 by 1.5 feet (0.8 by 0.4 meters) and 0.4 foot (0.1 meter) deep. The pit contained a mottled tan fill with no shell, similar to Feature 12, while the post hole, 0.6 foot (0.2 meter) in diameter and 1.2

feet (0.3 meter) in depth, had a black sand and oyster shell fill.

Feature 20, which also dates from the Stallings phase, was found at 13.80 feet MSL (4.24 meters MSL). The center point for the feature, which measured 2.9 by 2.1 feet (0.9 by 0.6 meters), was 129-19-5R12 and only the south half was excavated. This pit was 1.1 feet (0.3 meter) deep and contained a mixed dark tan, and oyster and whelk shell fill. The pit contained 5 pounds (1.9 kilograms) of shell, including nine knobbed whelks (2.1 pounds [0.8 kilogram]), several of which evidenced holes to remove the meat. The function of this feature is unknown -- insufficient shell and charcoal was recovered to suggest a steaming pit, yet some refuse was present.

Feature 28 is a 0.8 foot (0.2 meter) diameter Stallings sherd cluster centered at 141-15.5R45 and found within Zone 2, Level 3. The cluster began at 13.18 feet MSL (4.06 meters MSL) and terminated at 12.70 feet MSL (3.90 meters MSL). Soil associated with the feature was dark brown, although no definite boundaries could be established. Abundant charcoal (wood and hickory nut shells) was found associated with the sherds and it was originally thought this feature represented a small hearth. A radiocarbon sample of the associated charcoal yielded an age of 6060± 110 years: 4110 B.C. (Beta-16925), clearly too old for Stallings. Review of the sample by Dr. Murry Tamers of Beta Analytic revealed no anomalies -- the sample was considered good and the dating appears accurate. The most reasonable explanation, especially since the cluster includes Stallings Plain, Shell Punctate, Reed Punctate, and Incised specimens, is that the depression in which the sherds collected was an old tree hole, which contributed carbon of some antiquity.

130-131 Block

The 130-131 block includes three 10-foot squares -- 130-0R50, and 130-10R50, and 130-20R50 -- and one 5-foot square - 131-45R50 (Figure 39). The units were originally laid out in the hopes of identifying the intermittant source of small calcined bone fragments, some of which were felt to be human. No further data were obtained on the source of these remains, although the 325 square foot excavation did yield limited information on other questions. Squares 131-45R50, 130-0R50, and 130-10R50 were excavated to the base of Zone 1, while square 130-20R50 was excavated to the base of Zone 2, Level 3. Three features -- two historic and one Stallings -- and two historic post holes were identified in this block. There were, in addition, several projectile points plotted in situ as well as several possible features which were not removed because of their indistinct outlines and time constraints. Although the squares evidenced a good deal of mottling and organic staining, most was attributed to trees,

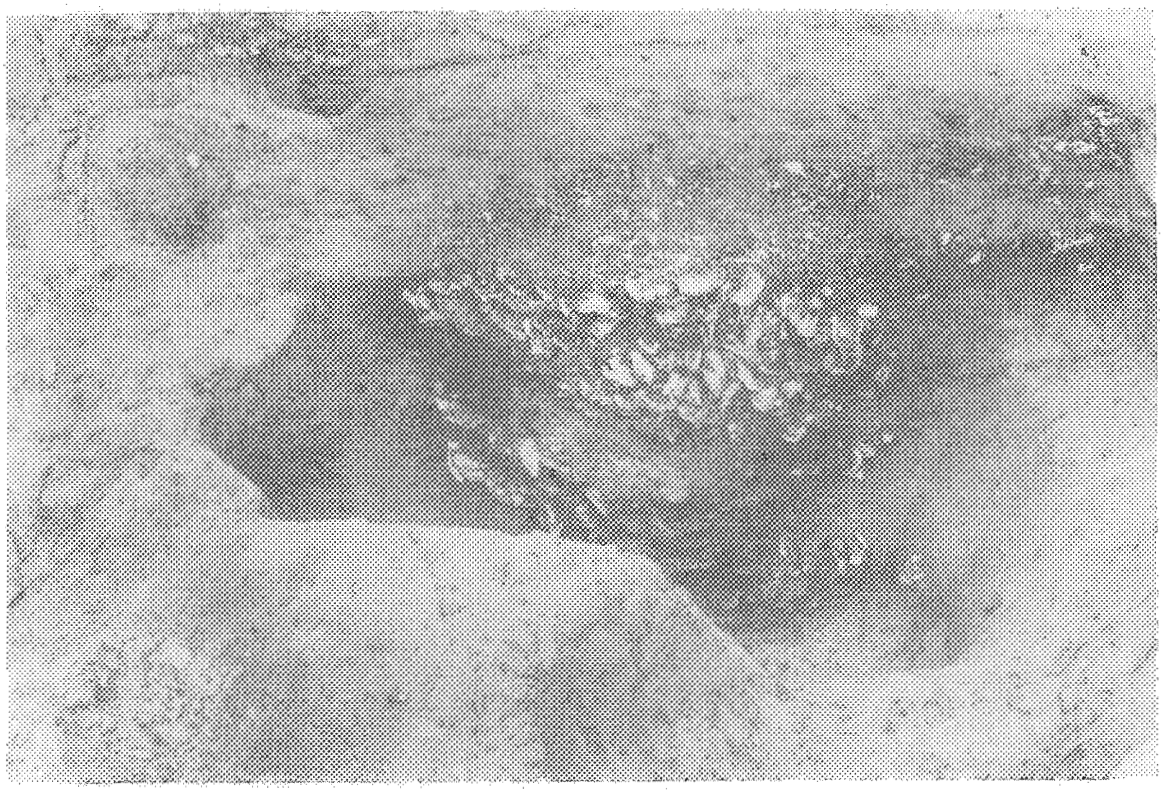


Figure 38. Feature 18, Stallings shellfish steaming pit, west half excavated. View is to the north.

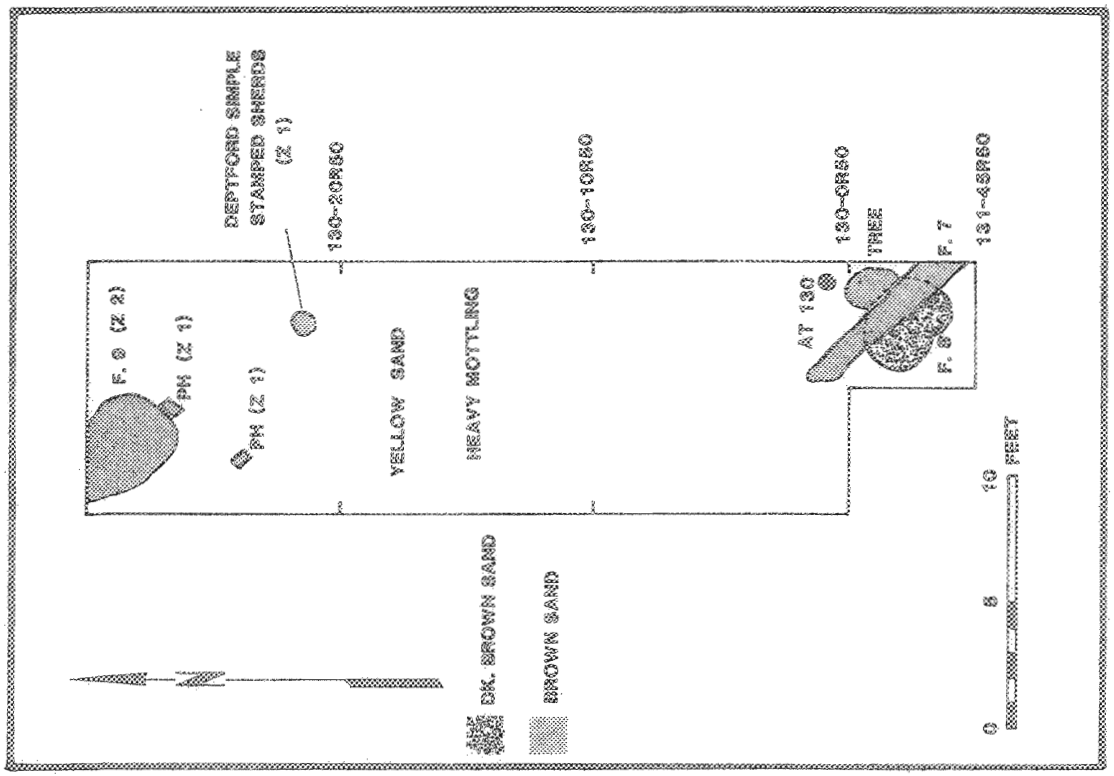


Figure 39. 130-131 block excavation.

and there is little evidence of intensive use during either the prehistoric or historic periods.

The prehistoric pit, designated Feature 9, was situated at 130-28R42.5 and measured about 4.8 by 3.4 feet (1.5 by 1.0 meters). The pit originated at 12.17 feet MSL (3.74 meters MSL) and was removed at the base of Zone 2, Level 2. The feature was 1.9 feet (0.6 meter) in depth and contained sparse oyster shell (4.0 pounds [1.8 kilogram]) and tan sand with Stallings sherds. No function has been determined for this pit.

Although not assigned a feature number, a small cluster of Thom's Creek simple stamped sherds were identified in square 130-20R50 at 130-21.7R47.5. The cluster was found at the base of Zone 1 and had an elevation of 12.52 feet MSL (3.85 meters MSL).

During the excavation of 130-0R50 a complex pattern of stains were revealed at the square's southeast corner. Subsequent excavation of 131-45R50 revealed two historic period features, a trash pit (Feature 8) which had been intruded into by a shallow ditch (Feature 7), both of which were intrusive into a tree stain (Figure 40).

Feature 7 began in unit 130-0R50 and ran southeastward to the corner of 131-45R50 where it disappeared into the east profile. Only the 7 feet (21. meters) exposed by these excavations was removed. The trench varied from 1.0 to 1.5 feet (0.3 to 0.4 meter) in width and about 0.1 to 0.3 foot (0.03 to 0.09 meter) in depth. The fill consists of tan sand with occasional shell inclusions, but is not lensed. This homogeneous fill suggests that the trench was dug and quickly backfilled. No purpose can be attributed to it at present, but it appears to have originated within the Zone 1 soils on at the current ground surface. It is in some respects similar to the trench observed by Trinkley and Zierden (1983) in Test Pit 1.

Feature 8, centered at 131-48R48, was a 3.5 by 3.8 foot (1.1 by 1.2 meter) historic trash pit which had irregular sides, a rounded bottom and was 1.9 feet (0.6 meter) in depth (Figure 41). While the original purpose of this hole is unknown, its eventual function was to receive a variety of refuse, include several bottles, tin cans, abundant animal bone, and a crushed stove pipe. Also found below the stove pipe, in the otherwise homogeneous dark brown sand fill, was a lens of gray ash.

Several 1860s sources discuss the policing of camp grounds and the burial of trash. Price notes generally that "the company streets and unoccupied ground [were] being cleanly swept" (Price 1875:135). General Order 80 from the

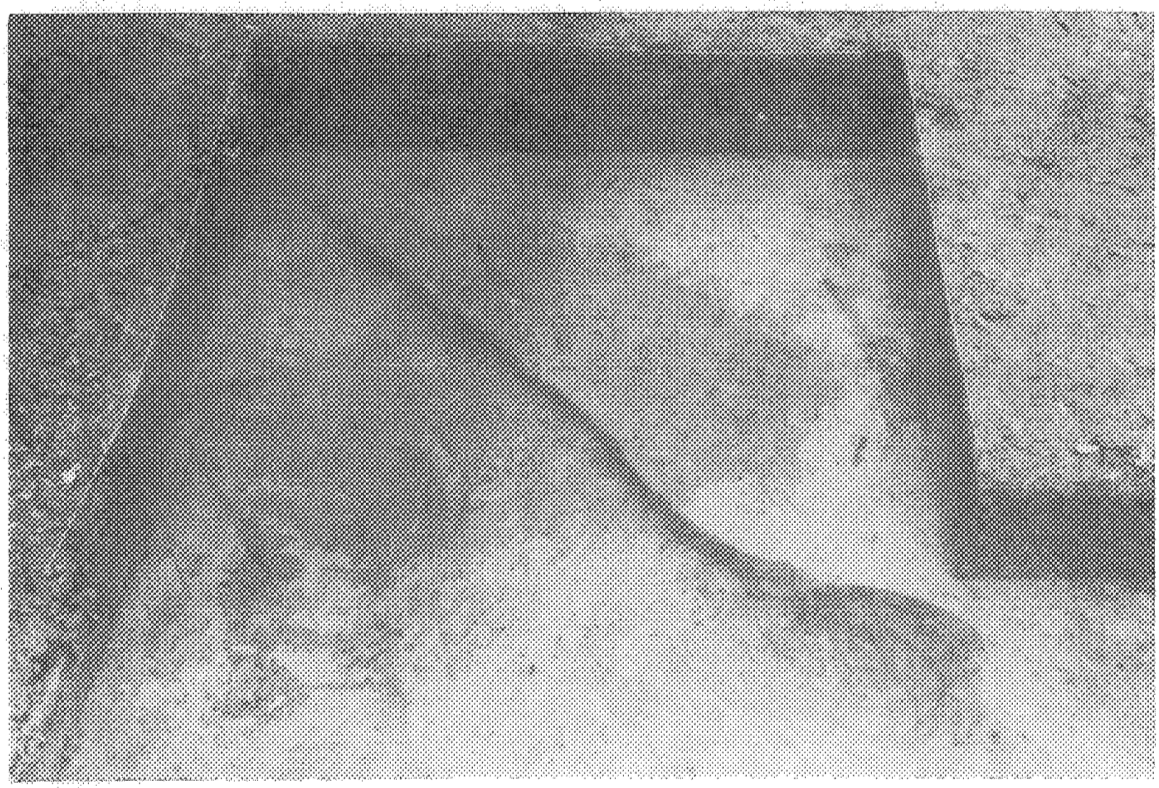


Figure 40. Feature 8, trash pit, before excavation. Feature 7 and the tree stain have been removed. View is to the south.

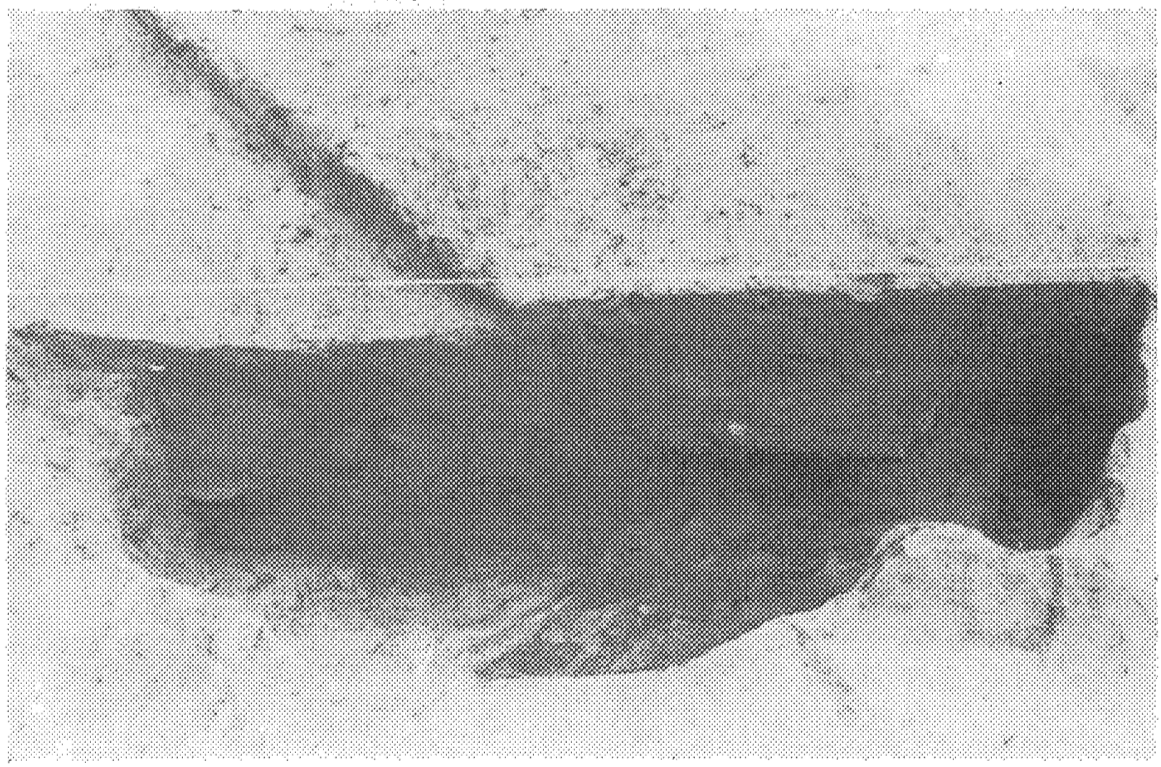


Figure 41. Feature 8, trash pit, south half excavated. Note metal stove pipe in the profile. View is to the south.

Headquarters of the Department of the South, issued on June 6, 1984, reads in part,

> [e]ach camp must be thoroughly policed every morning and evening, and all garbage or refuse matter will be collected and buried in sinks . . . . Great care must be taken in the construction of proper sinks . . . and the debris will be covered every morning with at least six inches of sand.

It seems, therefore, that Feature 8 might be expected at a military camp. It is unexpected at a freedman's village where the bluff edge was no more than 50 feet (15 meters) away. Several explanations are possible. The feature may represent the remains of a brief military encampment prior to the construction of Mitchelville in 1862. Alternatively, the isolated buildings near the southern marsh edge of Mitchelville (Figure 16), which may be in the vicinity of this block, may have been military in nature and may have imprinted that discipline onto a small segment of the archaeological record.

1982 Block

The 1982 block is the only excavation area not based on the South Carolina Plane Coordinate grid at the Fish Haul site. The 1982 block which originally consisted of three 10-foot squares, was tied into property markers adjacent to the subdivision road (Trinkley and Zierden 1983). Since then the block was expanded to include a total of eleven 10-foot squares (70-90R90, 70-100R100, 70-100R110) and the block was tied into several grid points (Figure 42). Excavations were begun in this area by the mechanical stripping of Zone 1 soils and the hand removal of backfill from the 1982 units (80-100R100). From that point excavations proceeded using arbitrary 0.3 foot (9.0 centimeter) levels within Zone 2.

As a result of these excavations, four prehistoric features, two prehistoric post holes, and two historic post holes, were encountered. This brings to six the number of features found in the 1982 block. Likewise, six prehistoric post holes are now recorded from the block. Five of these post holes appear to represent a "D"-shaped structure. The post holes originated in Zone 2, Level 2 and were found to be up to 0.5 foot (0.1 meter) deep when excavated at the base of Zone 2, Level 2. The post holes identified in 1982 were first noted at the base Level 3 (the equivalent of Zone 2, Level 4) and when plotted at the base of Level 3 were very shallow (no deeper than 0.1 foot [0.03 meter]). The posited structure measures about 14 by 10 feet (4.3 by 3 meters) with

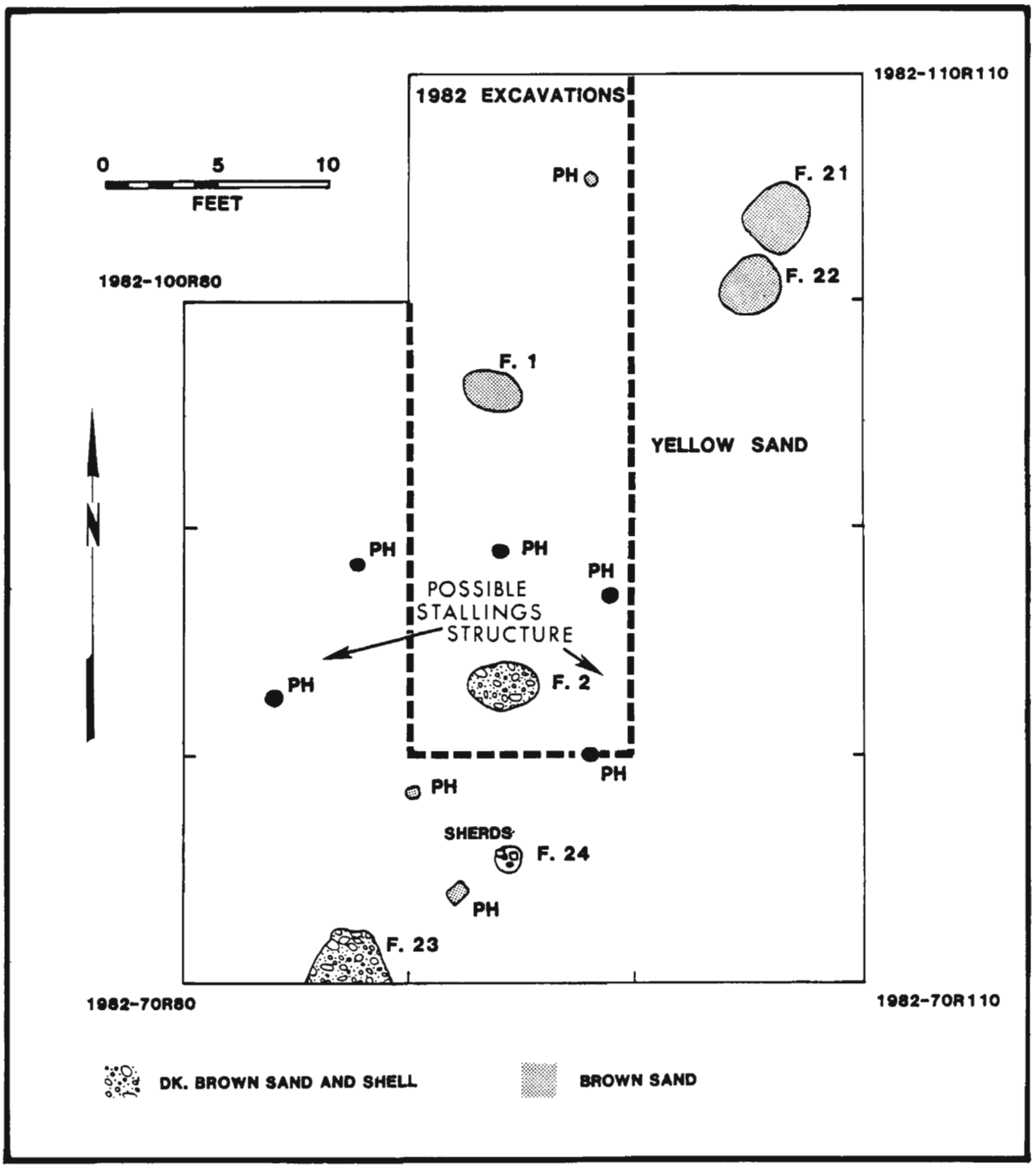


Figure 42. 1982 block excavations.

its long side oriented approximately east-west and opening toward the marsh. Little other evidence of a structure is present. Daub is very rare at the site and there were no textural differences in the soils noted during excavation.

Based on the stragigraphic position of these post holes, this structure appears to be associated with the Stallings phase occupation. Although little remains of this shelter, it was no more ephemeral than Stoltman's (1974:51-54) Stallings phase lean-to at Rabbit Mount, and is somewhat similar to the Deptford phase structure reported by Milanich (1971:62-65) from Cumberland Island, Georgia. The Fish Haul structure is nearly identical to a piedmont Georgia late Archaic-Early Woodland structure identified by Crook (1985:38) at the Cagle site. The Cagle structure is also "D"-shaped and measures about 16 feet (5 meters) by 6.5 feet (2 meters). The structure was identified in a stratum dated to about 600 B.C.

Feature 21, centered at 1982-103.5R106.5, represents a cluster of Stallings sherds in a matrix of dark brown sand. The feature originated within Zone 2, Level 3 at 13.00 feet MSL (4.00 meters MSL) and continued to a depth of 11.90 feet MSL (3.66 meters MSL). The pit, which measured about 2.7 by 2.9 feet (0.8 by 0.9 meter) had gently sloping sides and a flat bottom. Wood charcoal collected from this pit yielded an age of 3720±90 years: 1770 B.C. (Beta-16923).

Feature 22 was very similar to Feature 21, measuring 2.1 by 3.1 feet (0.6 by 0.9 meter) and 0.8 feet (0.2 meter) in depth. It originated at 12.88 feet MSL (3.96 meters MSL) (base of Zone 2, Level 3) and contained a tan sand matrix with Stallings sherds, but no shell.

Feature 23, which originated in the middle of Zone 2, level 2 (13.14 feet MSL, 4.04 meters MSL), was bisected by the south profile of 1982-70R90. The exposed portion measures 3.8 by 2.4 feet (1.2 by 0.7 meters) and was 1.1 feet (0.3 meter) in depth. The soil matrix is a homogeneous dark brown sand. The 92 pounds (41.6 kilograms) of shell found in the pit include primarily oysters, with lesser quantities of clam and occasional cockle, stout tagulus, ribbed mussel, and knobbed whelk. This single episode shellfish steaming pit has a radiocarbon age of 3680±60 years: 1730 B.C. (Beta-16924).

Feature 24, centered at 1982-75.7R94.4, represents a small cluster of Stallings sherds found in Zone 2, level 2 (13.11-12.93 feet MSL [4.03-3.98 meters MSL]). The sherds were found in an area of 0.5 square foot (0.05 square meter).

Significantly, the two dated features in the 1982 block are within 40 years of each other, which suggests that this particular cluster of Stallings remains is the result of a single, short duration occupation and not multiple

occupations over several centuries. These remains are probably associated with the single posited Stallings structure found in the block.

160-161 Block

The 160-161 block, the largest exposure of a Mitchelville structure, incorporates six 5-foot squares (161-0-25R25) and eight 10 foot squares (160-0R30-40, 161-30R20-40, 161-40R20-40). The 5 by 30 trench (161-0-25R25) was excavated minimally to explore the near rear yard. The larger block, consisting of the eight 10-foot squares, opens the area associated with two successive structures. Nine post holes and five features were identified during the course of this work (Figure 43).

The rear yard tests revealed a single feature -- Feature 26 -- which was a small shell midden which included 38 pounds (17.2 kilograms) of primarily oyster with a small quantity of clam. Many shells are uniformly burned to a gray color and are soft and crumbly. The oysters are all under 2 inches (5.1 centimeters) in length. This feature, centered at 161-11.5R23, measured about 3.8 by 3.0 feet (1.2 by 0.9 meters). The quantity of animal bone found associated with this deposit suggests this is simply an example of rear yard disposal practices. The pattern of burning suggests that this feature may represent the production (or attempt at production) of quick lime for mortar or perhaps tabby. The small shell might be more thoroughly and easily reduced from calcium carbonate to calcium oxide than would larger shells. Alternatively, the small, burnt shells may represent specimens deemed too small to open for food and which were discarded in the fire.

The density of shell in the rear yard is about 0.8 pound (0.4 kilogram) per cubic foot (0.03 cubic meter), although the density is as high as 3.5 pounds (1.6 kilograms) per cubic foot (0.03 cubic meter) in the vicinity of Feature 26. Brick density, however, is uniformly low in the rear yard -- 0.02 pound (0.01 kilogram) per cubic foot (0.03 cubic meter).

Brick density in the vicinity of the structure is quite high - 1.9 pounds (0.8 kilograms) per cubic foot (0.03 cubic meter) for the entire 10-foot block area and as high as 4.6 pounds (2.1 kilograms) per cubic foot (0.03 cubic meter) in the immediate area of the chimneys. While 1465 pounds (663.6 kilograms) of brick were recovered, this represents only 300-370 bricks. A total of 833 pounds (377 kilograms) of shell were recovered, for a density of 1.1 pounds (0.5 kilogram) per cubic foot (0.03 cubic meter). Much of this shell, however, was originally contained in a tabby mortar, which is found in a recognizable form at a density of 0.4

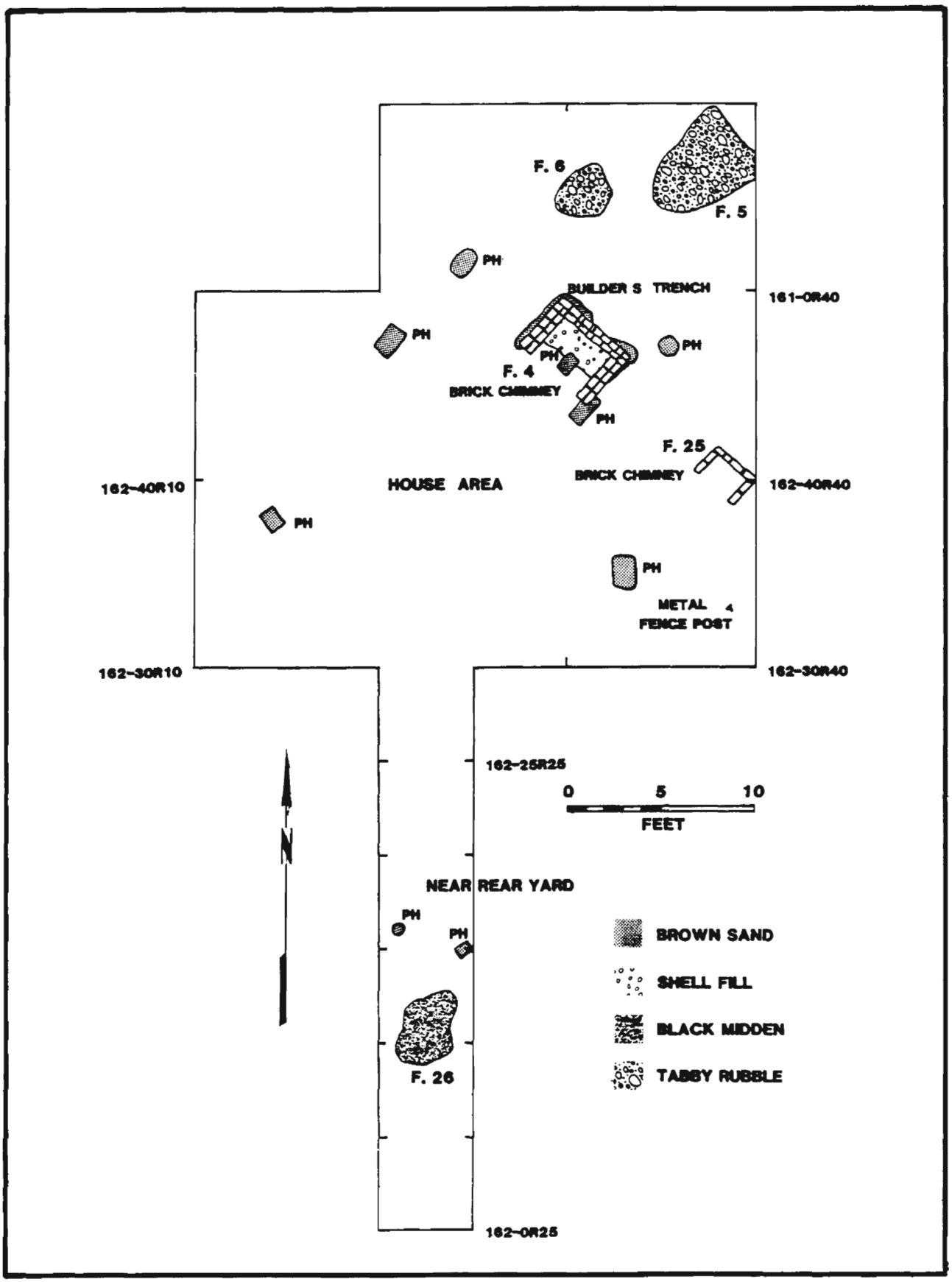


Figure 43. 160-161 block excavations.

pound (0.2 kilogram) per cubic foot (0.03 cubic meter). The density of these items is shown on Figure 44.

The earliest Mitchelville structure in the block is represented by Feature 25, a crudely built chimney base (Figure 45). This chimney is oriented N48°5'E and is centered at 162-40R38.5. It is built of salvaged bricks measuring from 8 7/8 x 4 1/4 x 3 to 9 1/4 x 4 1/8 x 2 3/4 inches (22.5 x 10.8 x 7.6 to 23.5 x 12.4 x 7 centimeters) The remains are only three courses in height (with a top elevation of 16.11 feet MSL [4.96 meters MSL] at its north corner) and were laid one course thick in a random bond. The mortar is a shell type, but quite poor, so the bricks were largely unbonded although they were articulated. This chimney base measured about 2.0 by 2.8 feet (0.6 by 0.9 meters) and had a hearth area of about 1.5 by 2.3 feet (0.5 by 0.7 meter), slightly smaller than that noted from the Callawasse structure of somewhat similar construction (Colin Brooker, personal communication 1986). The interior of the chimney was plastered with a shell mortar and the remnants of tabby mortar floor were found at the midpoint of the first brick course (15.38 feet MSL [4.73 meters MSL]).

The dating of this feature as the earlier of two structures in the block is based on stratigraphic evidence and archaeological inference. The fill within the chimney base, above the tabby floor, was identical to that found as Zone 1 fill elsewhere in the block. Below the tabby floor there is a near sterile Zone 2 sand, atypical of the remainder of the block. No builder's trench was present, so it appears that this footing was built at or just below the 1860s ground level and a tabby floor was laid in the fire box. As the structure's fire box was not elevated it is likely the structure had a poured tabby mortar floor. Although no post holes could be found for this structure, it was apparently built using a tabby wattle and daub technique. Such an impermanent structure, discussed previously for the chimney in the 110-123 block, would have required only corner posts, which may not have been deeply placed. Within a short period of time this structure was torn down and a larger, better built structure replaced it.

Evidence for the structure's removal and original construction technique is provided by Features 5 and 6. Both are tabby filled pits, centered at 161-7R38 and 161-5.4R31 respectively. Feature 5 was the largest, measuring about 5.2 by 5.1 feet (1.6 by 1.5 meters) and upon excavation found to be 1.9 feet (0.6 meter) in depth (Figure 46). The pit fill consisted of 557 pounds of tabby mortar, most with wattle and daub impressions (Figure 47), although a number of pieces represented poured flooring. An 1862 penny in the pit fill provides a terminus post quem (TPQ; a date after which an object must have found its way into the ground) for this pit, probably even later than the penny's date. Yeoman

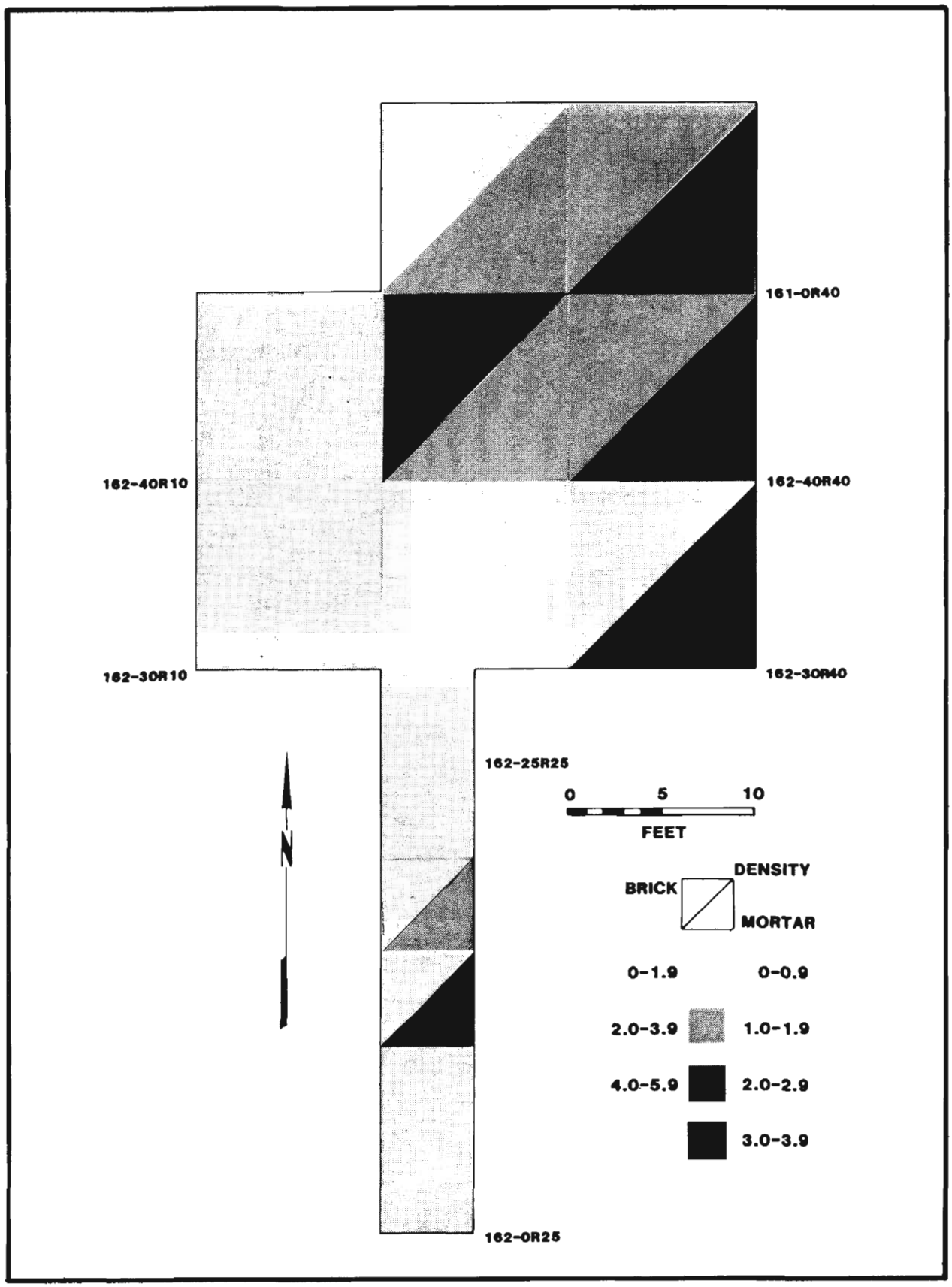


Figure 44. Density of brick and mixed shell and mortar in the 160-161 block.

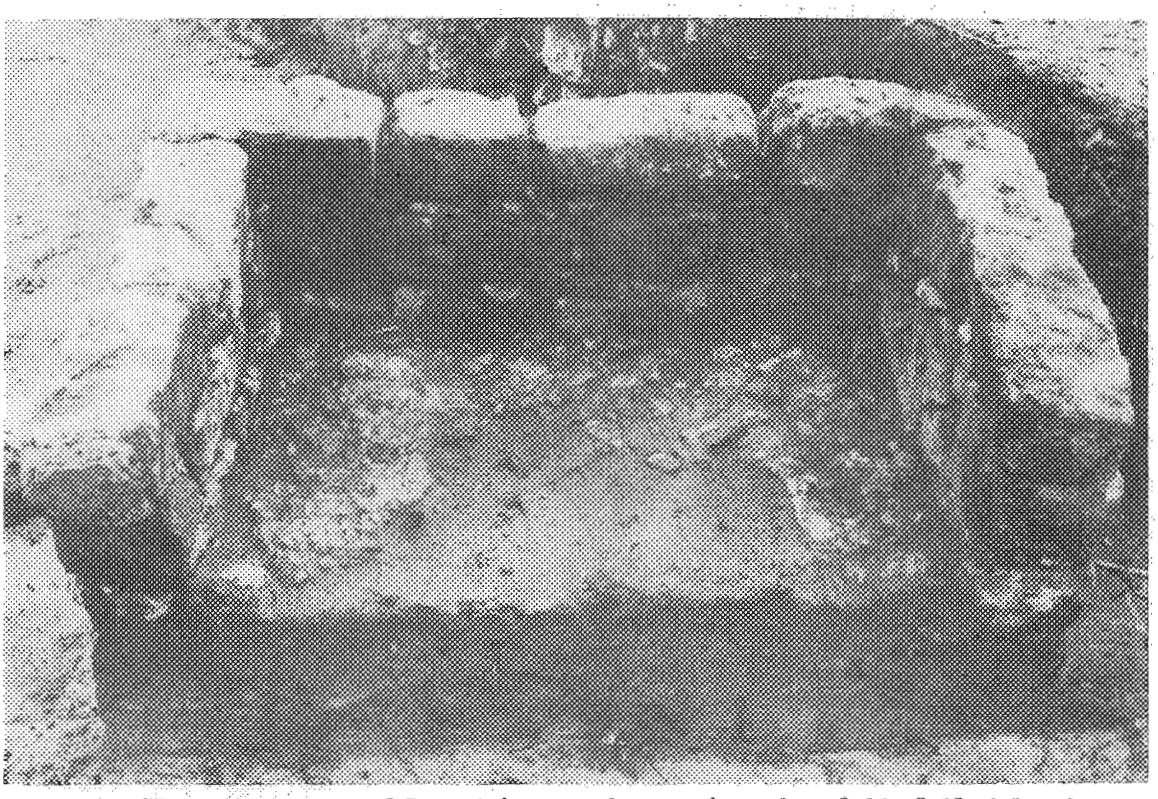


Figure 45. Feature 25, chimney base in the 160-161 block. View is to the northeast.

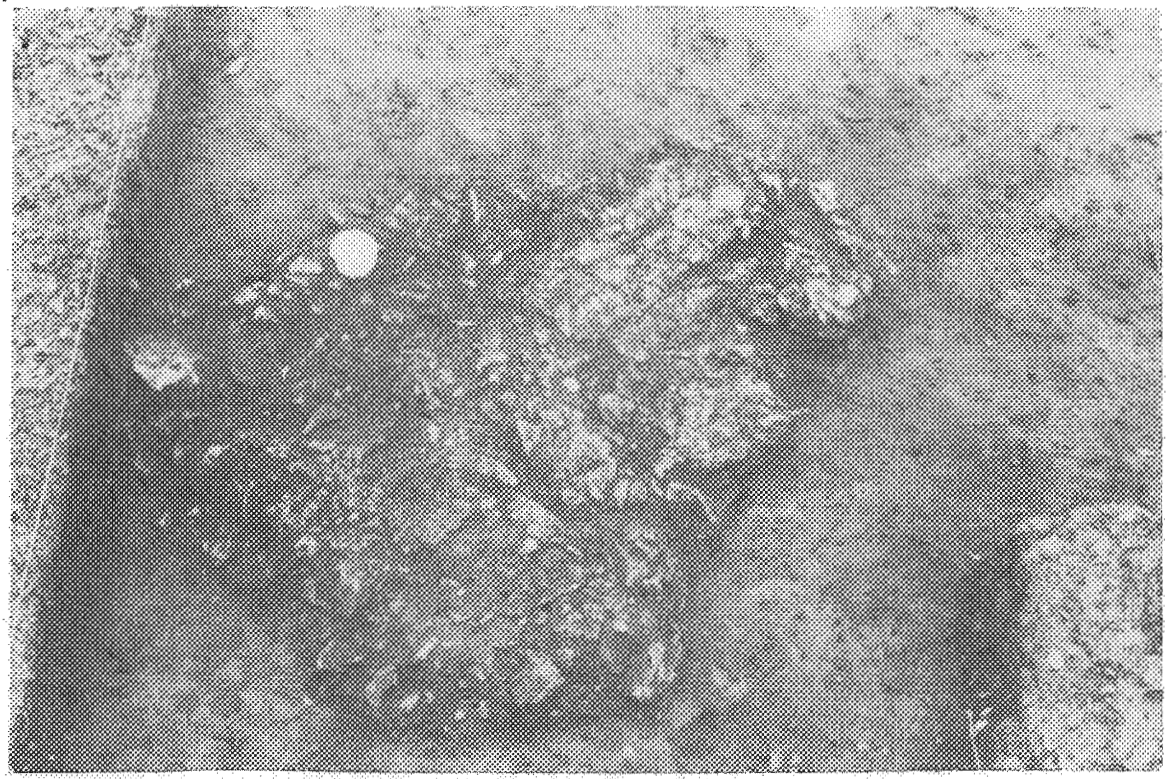


Figure 46. Feature 5, tabby rubble filled pit. View is to the south.

(1976:10)notes that coinage became scarce with the outbreak of the Civil War and Reinfeld notes that,

> [b]y July 1862 all the regular coinage had disappeared. The citizens, anticipating future increases in the value of metal, were hoarding every piece of gold, silver, and even copper (Reinfeld 1959:39).

Another item in the fill was a gilt Union military button with little wear, which suggests a similar date.

Feature 6, a small version of Feature 5, measured about 2.8 by 2.5 feet (0.8 by 0.7 meters) and 0.9 foot (0.3 meter) deep. The fill consisted of small tabby mortar pieces, weighing 77 pounds (34.8 kilograms). It is as though the larger hole had been filled when the need arose to dispose of a quantity of smaller pieces, so a second pit was dug for their disposal.

At some point during or shortly after 1862 a pre-existing tabby wattle and daub structure with a crude brick chimney was torn down and the large rubble buried. Evidence for the structure's short duration is provided by this flooring, which shows no wear or repair (Colin Brooker, personal communication 1986). Like the burial of refuse in Feature 8, this operation has the appearance of a military directed, if not conducted, operation. Based on refuse disposal patterns observed elsewhere it would be unusual to see slaves or freed men dispose of trash in this manner.

The second structure is evidenced by Feature 4, a larger, better made chimney base which had a raised hearth (Figure 48). This chimney is oriented N44°19'E, only 3°46' off the first chimney base -- an almost imperceptible difference. This suggests the two structures had the same orientation, apparently to the streets of Mitchelville, which were laid out with an orientation of N42°45'E (National Archives, RG58, Field Notes for Survey Dividing St. Lukes and St. Helena).

The chimney was built of salvaged bricks (which at one time had been whitewashed) which measured 7 3/4 x 3 3/8 x 2 1/4 to 8 x 3 5/8 x 2 3/8 inches (19.7 x 9.8 x 5.7 to 20.3 x 16.8 x 6.0 centimeters), slightly smaller than the bricks from Feature 26. While the bricks from Feature 26 appear to have been salvaged from a colonial or early autebellum structure based on their size, the bricks used for Feature 4 are more typical of the mid-nineteenth century (Colin Brooker, personal communication 1986; see also McKee 1973:53). The base was a maximum of seven courses in height, and two bricks in width (to produce a "9 inch wall") laid in

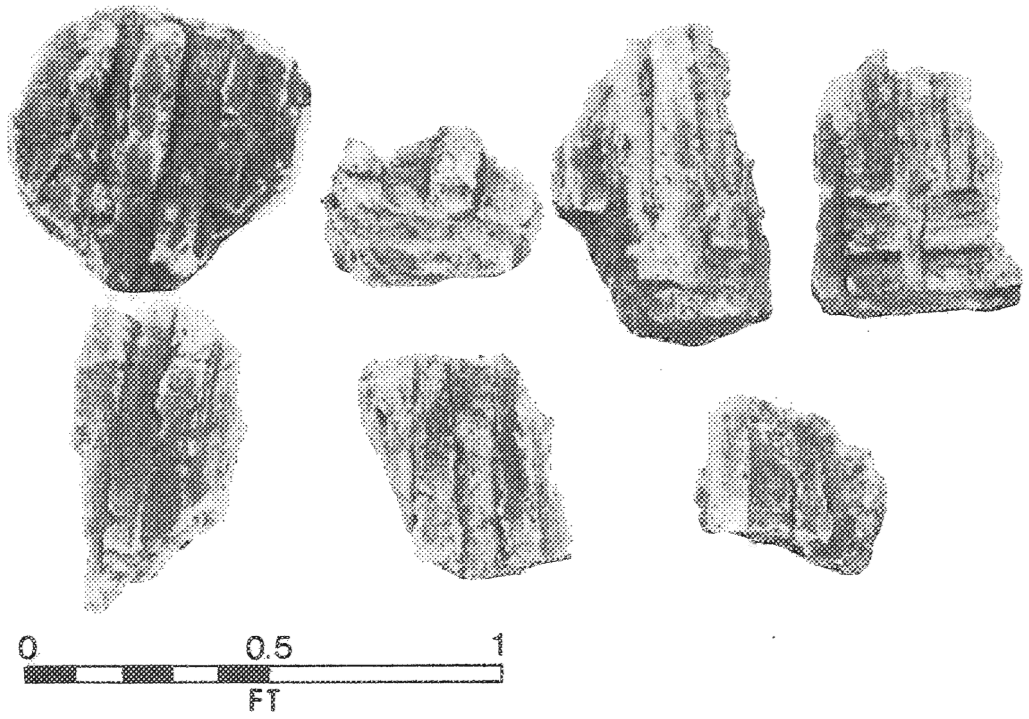


Figure 47. Tabby mortar with wattle impressions.

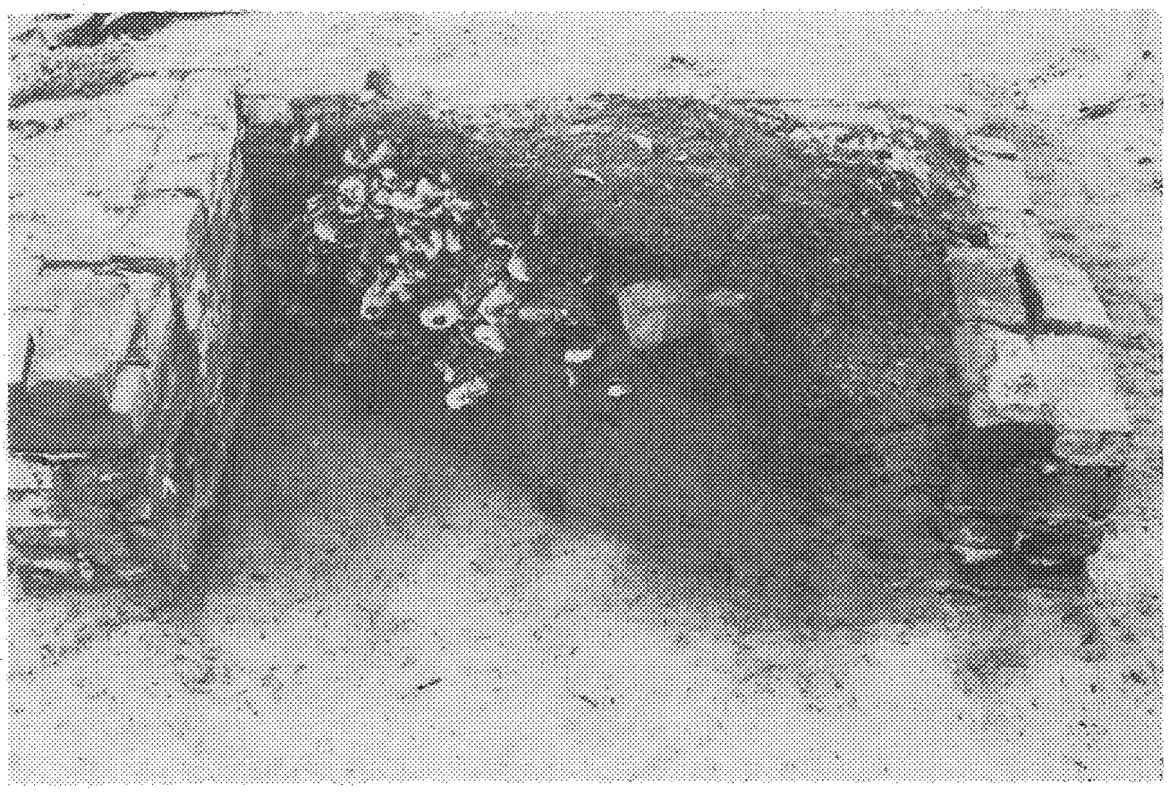


Figure 48. Feature 4, chimney base. View is to the northeast.

American or stretcher bond. The base measures 4.8 by 3.5 feet (1.5 by 1.1 meters) and has a hearth area of 3.5 by 2.8 feet (1.1 by 0.9 meters).

Surrounding the exterior of the chimney base was a builder's trench about 0.5 foot (0.1 meter) in width which originated at the base of Zone 1. When the chimney footing was dug, a larger trench was excavated in the hearth area. After the construction of the footing this area was filled with a quantity of oyster shells to the level of the hearth, which has since disappeared. This shell fill, however, contained a piece of tabby with wattle impressions, which clearly establishes the sequential dating of the structures represented by Features 26 and 4.

177 Block

The 177 block consists of one 10-foot square -- 177-0R30 - originally laid out in the hope of identifying structural remains or artifacts which were associated with the Mitchelville structures bordering the marsh (Figure 49). Upon excavation it was discovered that up to 1.4 feet (0.4 meter) of fill had been distributed over this area during the construction of the nearby lagoon. Consequently, the 10-foot square was continued into Zone 1 as a 5-foot square (177-0R25) in the southwest corner of the unit. Zone 1 was found to be a very fine brown sand resting on a mottled white sand. This information clearly indicated that the 177 block was on the edge of the natural slough known to run through the property and that the fill gave the area an unnaturally high elevation. It is likely that the marsh edge structures were located further to the northeast, perhaps in the vicinity of the 131 or 144 blocks. Both prehistoric and historic artifacts were very sparse in these excavations.

218 Block

The 218 block consisted of two 10-foot squares, 218-40R20 and 218-40R30, and a single 5-foot square, 218-42R10 (Figure 50). The placement of these units were designed to explore an area of denser shell and historic artifacts which were thought to be another structure. While small quantities of brick (19 pounds [0.6 kilograms]) and larger quantities of shell (108.5 pounds [49.2 kilograms]) were recovered, no architectural features were identified. Historic artifacts, including architectural items, were recovered, but this area does not appear to be in the immediate vicinity of a structure.

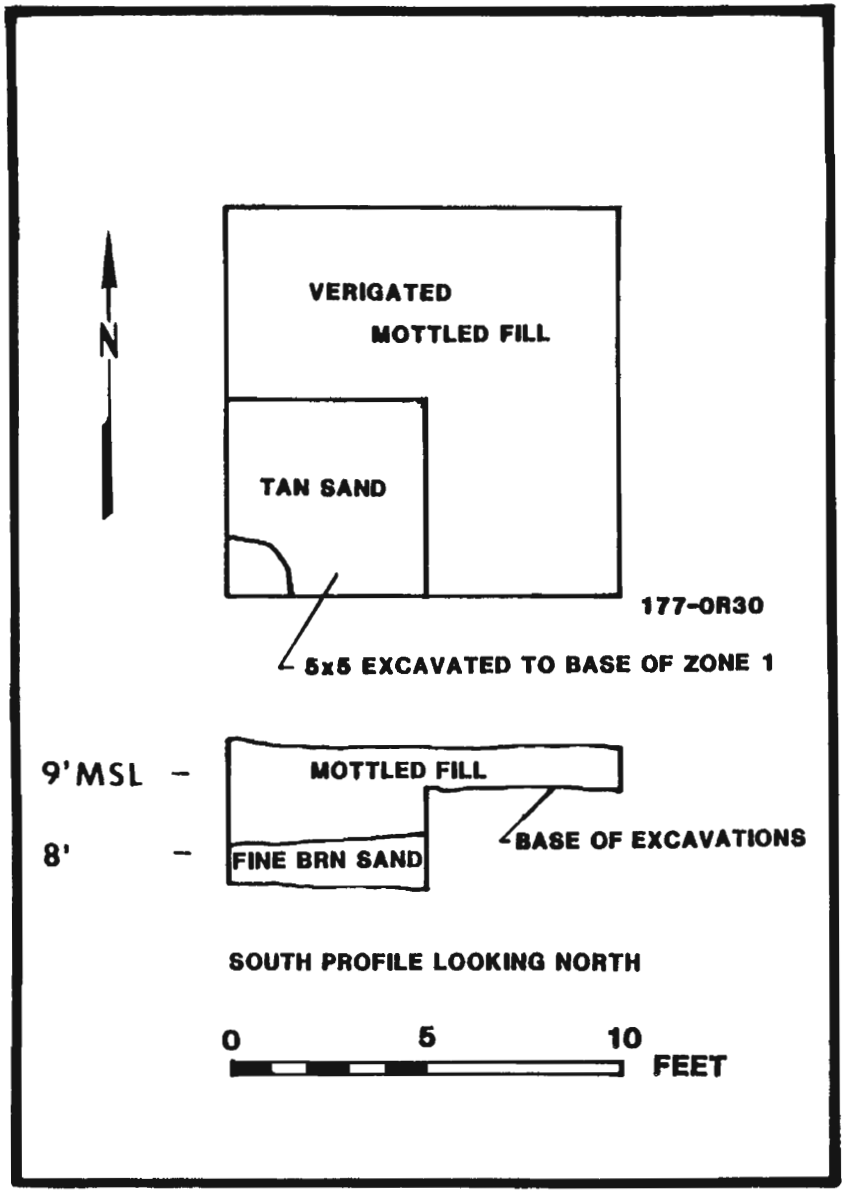


Figure 49. 177 block excavations.

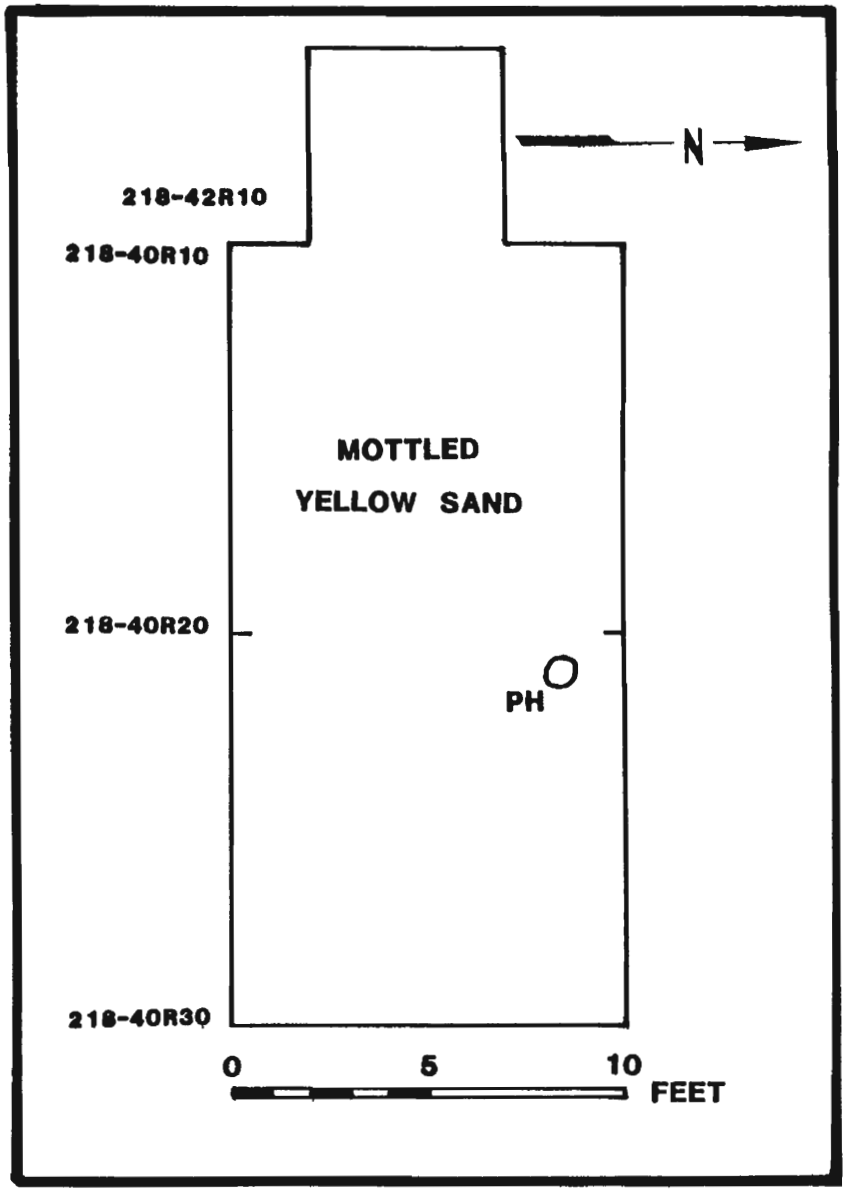


Figure 50. 218 block excavations.

Square 218-40R30 was excavated to the base of Zone 2, level 4 (13.77 feet MSL [4.23 meters MSL]) as a test for prehistoric remains. Stallings, Thom's Creek and Deptford remains are found mixed in this square, although the Deptford pottery tends to be concentrated in Zone 2, Level 1 (15.07-14.78 feet [4.63-4.53 meters] MSL). While not designated a feature, a cluster of eight Deptford Simple Stamped sherds were found at 218-39.4R26.6 at 14.93 feet (4.59 meters) MSL.