MANAGEMENT SUMMARY OF DATA RECOVERY EXCAVATIONS AT 38CH1693, A SMALL THOM'S CREEK SITE, CHARLESTON COUNTY, SOUTH CAROLINA

CHICORA RESEARCH CONTRIBUTION 451

MANAGEMENT SUMMARY OF DATA RECOVERY EXCAVATIONS AT 38CH1693, A SMALL THOM'S CREEK SITE, CHARLESTON COUNTY, SOUTH CAROLINA

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Chicora Research Contribution 451

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ABSTRACT

This document provides a brief summary of data recovery excavations conducted by Chicora Foundation for Carolina Park Associates, LLC at archaeological site 38CH1693, a small Thom's Creek site, under an existing Office of Ocean and Coastal Resources Management (OCRM) Memorandum of Agreement (MOA). The work was based on a data recovery plan submitted by Chicora archaeologists during the spring of 2006.

Previous archaeological investigations found a small Late Archaic/Early Woodland settlement at the site, with research focusing on what was thought to be a shell midden associated with Thom's Creek pottery, primarily Thom's Creek Plain and Thom's Creek Finger Smoothed.

In spite of previous survey and testing, data recovery would begin with close interval auger testing in an effort to determine the extent of the testing. This would be followed by hand excavations (up to 300 square feet) with limited mechanical stripping to expose occupation areas that might be associated with the midden.

Data recovery was conducted by Chicora archaeologists (the PI and three archaeologists) from July 31 through August 10, 2006, with a total of 296 person hours devoted to the research.

Auger testing, using a 10-inch (0.83 foot) mechanical auger, was conducted at 20 foot intervals within the site boundaries previously established. A total of 106 auger tests were excavated with fill being screened through ¼-inch mesh. This work was used to identify two previously unreported shell concentrations. The previously shell concentration, however, was not found beyond the initial test area.

Data recovery excavation included seven 5-foot units (a total of 275 square feet) centered on the initially reported midden. These excavations found that there was no midden, but rather a series of discrete shell pit features. Several of these features blurred together, producing what might be mistaken for a midden in a small test unit. Four features were identified in the excavations. The exposed portions of three were entirely excavated and the fourth was bisected with one-half removed.

All of the feature fill was waterscreened through ⅛-inch mesh to maximize the recovery of small faunal remains. This resulted in the collection of a very large amount of small fish bone, including occasional scales.

Combined with the feature excavation, three of the 5-foot units were excavated in 0.2 foot levels until sterile. One unit, 165R165, produced remains to a depth of nearly 2.5 feet below grade; the other two units revealed materials to only about 1.5 feet (the original test unit produced remains to only 1.6 feet).

With the completion of hand excavation and feature removal, additional stripping was conducted around the excavation units, revealing additional features to the north, downslope. These features were also shell pits and deemed redundant, except for one. This single feature, consisting of heavily burned and ashed shell was bisected with one-half removed and waterscreened through ⅛-inch mesh.

The remaining two shell areas identified through auger testing were also examined by

mechanical stripping. One, identified at a much higher elevation, was found to be Deptford midden. The second, at a comparable elevation to the main excavation area, was found to be a series of Thom's Creek shell-filled pits. One of these was sampled, with screening again through ⅛-inch mesh for comparison with the main excavation area.

With the completion of field investigations, the artifacts have been washed and have been rough sorted. Faunal remains are being pulled for shipment for analysis. Ethnobotanical materials are being processed and samples have been floated. Four radiocarbon samples have been submitted for dating. Feature samples have been submitted for pollen and phytolith studies. Thom's Creek sherds are being examined for carbonized residue that might be useful for lipid analysis. Soil samples have been submitted for macronutrient studies.

Initial soil studies indicate that the site lies on the back (northwest) of an old beach ridge. Aeolian sedimentation along the back of this ridge is most likely the process of burial as the predominant wind direction is from the south/southeast. There could have been some storm washover in the past, but that would have been before 1500 yrs bp. Additional studies are being conducted.

All aspects of the field investigation are complete – as documented by this management summary – and we believe it is now appropriate to release the site area to the project sponsor for development activities.

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INTRODUCTION

Background

The data recovery investigations were conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Stacy Hornstein of Carolina Park Associates, LLC. The field studies were conducted from July 31 through August 10, 2006 with a crew of three archaeologists (Kim Igou, Julie Poppell, and Nicole Southerland), plus the Principal Investigator (who was on-site throughout the project). A total of 296 person hours were spent on the project. A broad range of detailed analysis is in the process of being conducted with the completion of the field investigations.

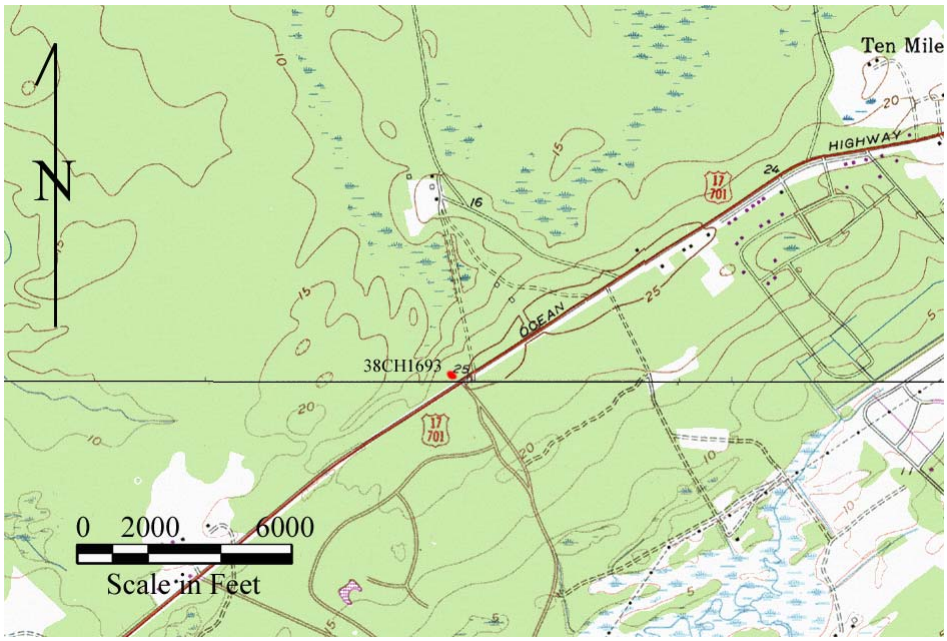

Figure 1. Vicinity of 38CH1693 (basemap is USGS Cainhoy and Fort Moultrie).

Site 38CH1698 was first encountered during a 1997 survey, with a draft report produced in 1999 and a final report completed in 2003 (Pecorelli and Harvey 2003). Apparently the site was initially identified as a result of shovel testing, with 21 shovel tests excavated at approximately 100 foot intervals. Subsequently an additional 40 shovel tests were excavated at 50 foot intervals, and two 3-foot test units were also excavated. Based on this testing the site was defined as measuring about 244 feet north-south by 195 feet east-west (slightly over 1 acre). The site is described as being situated on a relic dune in a wooded area immediately adjacent to a paved road. Artifacts present at the site include Late Archaic/Early Woodland through Middle Woodland pottery.

It appears that 441 artifacts were recovered from the 61 shovel tests, yielding an average density of about 7 artifacts per test. However, fully 364 of these artifacts (82.5%) were classified by the authors as either "eroded," likely meaning too damaged to provide meaningful data, or "residual," meaning too small to be identified. Consequently, in terms of meaningful data, the 61 shovel tests produced only 77 artifacts. Of these 77 specimens, 33 (42.8%) were identified as plain, with no cultural information determined. The majority of identifiable specimens – *accounting for only 4% of the total assemblage* – were Thom's Creek Finger Pinched. In spite of the relatively large number of shovel tests (61 tests over about 1 acre, or one test every 780 square feet), there is

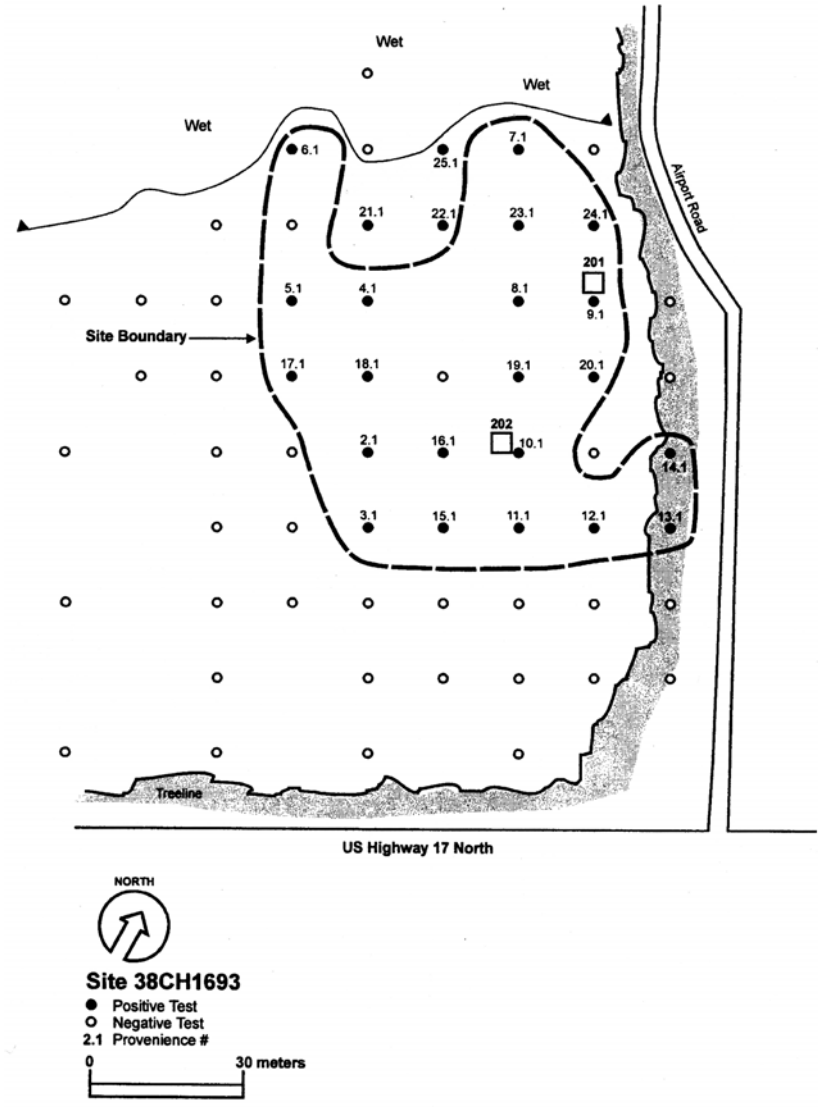

Figure 2. Map of 38CH1693 based on the original survey data (from Pecorelli and Harvey 2003:Figure8).

no density map provided to help us determine where the densest portion of the site might be located.

The more northern test unit (201) was excavated in 0.325 foot levels, with a "midden lens" about 0.65 foot thick found 0.6 foot below the surface. Below this midden was yellow sand. For the sake of clarity, we will refer to materials above the midden, in the midden, and below the midden.

Above the midden the authors report a mix of Deptford and Thom's Creek pottery. In the midden the authors identified only Thom's Creek sherds. Unfortunately of the 96 sherds from the midden zone, over 84% were either "residual" or "eroded" – leaving only 3 specimens to make the Thom's Creek cultural identification. Below the midden are only Thom's Creek sherds, but again of the 87 sherds recovered, over 86% are "residual" or "eroded." Within, and apparently immediately below, the midden the authors report a modest amount of faunal material, as well as what they describe (but do not illustrate) as "cut antler." All screening, it appears, was through ¼-inch mesh.

The more southern unit (202) produced a profile similar to the northern unit, except that no shell midden was encountered. Artifacts in the upper 0.65 foot are mixed Deptford and Thom's Creek. Below that Thom's Creek artifacts are found exclusively, primarily to a depth of about 1.6 feet. Again, however, the "residual" and "eroded" sherds account for 87.7% of the total assemblage, leaving identified Thom's Creek materials accounting for only 7.2% of the assemblage.

At the base of the unit the authors report a feature with "a vertical side like a trench." The authors note that there is a buried

cable through the site and that this is likely a modern intrusion. Lacking a shell midden to neutralize the acidity of the sandy soils, this southern unit failed to produce either faunal material or worked bone.

The authors, in their assessment of the site, note that "Thom's Creek Finger Pinched ceramics make up 48 percent of the diagnostic artifact assemblage" – although they fail to note that this diagnostic artifact assemblage accounts for only 133 sherds out of 1,926 – or less than 7%.

The data recovery plan prepared by the original consultant proposed an additional testing phase, consisting of the excavation of 1.6 foot units excavated at 25 foot intervals, with approximately 98 tests being anticipated.

Based on these units it was then proposed to excavate up to 210 square feet, with fill being screened through ¼-inch mesh. Shell was to be weighted and discarded. Features were to be bisected and presumably screened through ¼-inch mesh with a 5-galllon volume retained for flotation.

At the conclusion of the hand excavations up to 960 square feet would be mechanically stripped, although no features would be excavated.

In the spring of 2006 Chicora was requested by the property owner, Mr. Stacy Hornstein, to prepare a data recovery plan for the property.

Research Questions

The original National Register assessment of the site observed that its significance was based on the prevalence of Thom's Creek Finger Pinched ceramics which the authors claim "has only been found in the Mount Pleasant area" (Pecorelli and Harvey 2003:51). They also note that "Sassaman (1997) believes this ceramic type may represent a distinct Ceramic Late Archaic population." They suggest that, as a result, 38CH1693 "provides a unique opportunity to gather specific information concerning this possible cultural entity," with topics possibly including "quality of life," site function, and occupation range.

Pecorelli and Harvey (2003:51) suggest that soil conditions at the site are favorable for the preservation of organic materials and while they believe that the site reflects seasonal behavior (apparently based on its small size), the site can address seasonality and subsistence questions. The data recovery plan prepared (Anonymous 1999) offers no additional research directions.

There are several aspects of the original research orientation that are flawed. Perhaps most fundamentally, the Thom's Creek Finger Pinched type (Trinkley 1976:50-51) is found at sites as far south as Hilton Head Island in Beaufort County (albeit in small numbers) and as far north as the middle of the Francis Marion Forest in Charleston County. The "heartland" appears to be in the vicinity of northern Christ Church Parish. This distribution has been clearly documented by Anderson (1975:147), Trinkley (1976), and Sassaman (1993:207). To claim that the type "has only been found in the Mt. Pleasant area" is a significant misunderstanding. In addition, while faunal remains were recovered from the site, it seems clear from the contrasting results at the two test units, that "seasonality and subsistence data" will only be available from those areas where intact shell midden is present. Elsewhere there are heavily leached, acidic soils, devoid of features and faunal remains.

When we turn to *Middle and Late Archaic Archaeological Records for South Carolina: A Synthesis for Research and Resource Management* (Sassaman and Anderson 1994:199) to determine what types of sites were suggested as worthy of data recovery, they do recommend that any site with "intact buried deposits, particularly assemblages yielding features or preserved

floral and faunal remains" should be "automatically" considered eligible. Yet, their analysis emphasizes the importance of either features or remains beyond pottery. This, again, stresses that while those midden areas within 38CH1693 are eligible, there seems to be little research potential at the remainder of the site. Unfortunately, in spite of multiple testing activities at 38CH1693, there has been no effort to document the extent of the midden.

Sassaman (1993:205) also observes that while finger pinching and related decorations are uncommon on fiber-tempered wares, they are popular on the sandy paste Thom's Creek ware. He attributes them to what he calls Awendaw and places the design in his Phase III, dating from about 3400 BP (1450 B.C.) to about 3000 BP (1050 B.C.) (Sassaman 1993:110).

If subsistence and settlement data are, as we believe, to be best preserved in the midden contexts, then it is regrettable that the initial research at 38CH1693 did not better document the extent of that midden. Nevertheless, it was our view that research should focus on the midden areas, where floral and faunal remains would be best preserved and artifacts could be identified in secure (and datable) contexts.

We identified five specific research topics that appeared to represent significant research goals and which could reasonably be addressed using the data sets present at 38CH1693.

- We proposed a limited geological study of the soils to help better understand the eventual burial of the shell midden, as well as the artifacts found below the midden. Is the burial the result of wind-blown sands gradually covering the midden area? Are the artifacts below the midden the result of materials "sinking" in the loose, unconsolidated sands (bioturbation, e.g., the movement of artifacts down in soil profiles – known also as vertical translocation – see, for example, Frolking and Lepper 2001) – or are there floors that might suggest occupation at the site without reliance on shellfish resources prior to the deposition of the midden?

- A detailed zooarchaeological study of the faunal remains, coupled with screening adequate to recover small fish remains. Much of the Thom's Creek archaeology previously done along the South Carolina coast has relied on ¼-inch mesh, with the result that small faunal remains, such as fish, are routinely missed (see, for example, Wing and Quitmyer 1985, who suggest that 1/8-inch may be the minimally acceptable screen size, with 1/16-inch preferable).

- An examination of soils for pollen and phytolith remains to help address seasonality and assist in reconstructing the nature of the local environs. These studies seem to have been conducted in very few of the earlier studies (such as my own work at sites such as Lighthouse Point and Stratton Place [Trinkley 1980]). Even the more recent studies, such as the recent work at the Fig Island and Sewee rings (Saunders 2002; Russo and Heide 2003) do not seem to be focusing on environmental issues.

- Adequate radiometric dating to provide refined dating for the site. As with all radiocarbon dating, the goal is to estimate beginning and ending dates for the occupation. To achieve this goal, however, we sought to obtain a sufficient number of dates to reasonable cover the site. At the same time we wished to avoid, if possible, imprecision and large standard deviations that would minimize the use of the resulting dates.

- Finally, based on the reported abundance of "worked bone" at the site, we sought careful, microscopic analysis of the specimens to determine if any additional comments could be offered on its function. Other than Sassaman's (1983:191-192) limited discussion of a curated bone tool for pottery decoration, I am unfamiliar with any analysis of bone tools since my own limited work with engraved bone pins (Trinkley 1980:218-219; for example, there is no discussion of function in Saunders 2002:125-129).

Proposed Data Recovery

Field Investigations

Our proposal specified that the client would bush hog the site prior to our work, opening what had become a heavily overgrown second growth forest (Figure 3).

Figure 3. View of 38CH1693, looking west.

Following the general outline of the original data recovery plan (Anonymous 1999), we proposed block excavations centered on the one test unit where midden was reported, followed by mechanical stripping. We rejected additional testing, arguing that after two testing programs and the excavation of tests at 100 foot intervals, then again at 50 foot intervals, followed by two formal units, it seemed that the client had been required to test the site enough.

The State Historic Preservation Office (SHPO) disagreed, urging, at a minimum, hand coring to determine the location and extent of the midden (letter from Mr. Chad Long, S.C. Department of Archives and History, dated May 30, 2006). The client agreed to the additional work requested by the SHPO and we proposed to mechanically auger 10-inch (0.83-foot) tests at 20-foot intervals across the site area as originally defined. This modification was accepted by the SHPO and was incorporated into the data recovery plan.

These tests, however, were to assist only with estimation of the midden extent. The focus of the investigations was to remain on the immediate vicinity where the midden was reported by test unit 201.

We proposed that up to 300 square feet would be opened as formal units. We would use equipment, however, to strip off the upper 0.6 foot of the soil, in order to expose the top of the midden (this was based on test unit 201, see Pecorelli and Harvey 2003:48). We were willing to sacrifice this upper zone since it was reported to contain mixed deposits of Deptford and Thom's Creek pottery – making application of the data to the proposed research questions problematic.

The midden was to be excavated and screened primarily through ¼-inch mesh for expediency, with standardized samples

screened through 1/8-inch mesh for recovery of a fuller range of faunal remains.

At the base of the midden, approximately 25% of the units would be excavated to sterile soil. While this was not expected to yield artifacts or remains useful to our investigations, it would provide samples of materials perhaps subjected to bioturbation, allow for the examination of soil profiles for evidence of floors or other evidence of pedogenic activity.

With the completion of these studies, we then proposed to strip in cardinal directions from the excavation block to expose additional area, allowing for the documentation of features or habitation areas that might not be associated with the midden.

Analysis

Once the field investigation was complete the artifacts would be returned to Columbia for laboratory processing. This would include washing, sorting, and cataloging. We proposed to use the SC Institute of Archaeology and Anthropology for the curation of these remains and their cataloging system is therefore being used. As is standard practice, our agreement for this work specifies that the client provides the curatorial facility with fee-simple ownership of the resulting collections.

Our analysis was devised to address the specific questions and involved specialized studies by a variety of colleagues. For example, a reconnaissance level soils investigation is being conducted by Mr. Keith Seramur of Geonetics Corporation. Pollen and phytolith samples would be examined by Dr. Linda Cummings of Paleo Research Institute. Faunal remains would be examined by Dr. Homes Hogue of the Cobb Institute at Mississippi State. Radiometric studies would be conducted by Beta Analytic.

Although the auger testing was designed solely to identify the extent of the midden, we also envision the data as helping provide a more detailed understanding of the site as whole, especially since the existing documentation (Pecorelli and Harvey 2003) does not include density data beyond simple presence or absence in shovel tests (see Figure 2). Given the problems of using counts for prehistoric pottery, we also believe that weight (rather than counts) may provide a more reasonable approximation of frequency.

Detailed analysis of the pottery has not been identified as a major research orientation of this study. Nevertheless, we anticipate that the pottery, minimally, will be sorted by surface treatment with attention direction to several issues of ceramic technology that remain worthy of investigation.

In particular, we believe it may be useful to document lip treatments. Sassaman (1993:106) has found this to be a temporally significant feature of the earlier Stallings wares and it may be useful to take another, closer, look at this attribute among Thom's Creek wares. While Saunders' (2002:130-139) analysis coded a great deal of information concerning the pottery, her discussions focused on surface treatment and vessel form (and to a much lesser extent, paste). This seems to reiterate what I encountered as a result of examining thousands of sherds – the pottery is rather amorphous, with relatively little differentiation. Consequently, our pottery analysis will focus on these areas where study seems to hold the greatest promise – surface treatment, lip form, vessel form/shape, rim diameter, and paste.

Saunders (2002:138) does suggest a possible difference between Stallings and Thom's Creek as evidenced by the proportion exhibiting exterior sooting or use over open fires. This is another area of possible research significance.

Finally, given the friability of Thom's Creek pottery (and its abundance), it may be useful to look not simply at either counts or weights, but also the minimum number of vessels, perhaps reflected by the proportion of distinct rim circumferences present in the assemblage.

Curation

An updated site form reflecting this work has already been filed with the South Carolina Institute of Archaeology and Anthropology (SCIAA). The field notes and artifacts from Chicora's data recovery at 38CH1693 will be curated at SCIAA. The artifacts have been cleaned and are currently in the process of being cataloged following that institution's provenience system. All original records and duplicate records will be provided to the curatorial facility on pH neutral, alkaline buffered paper. Photographic materials include B/W negatives and color transparencies. The B/W negatives been processed to archival standards.

EXCAVATIONS

Methods

Prior to our arrival the client's representatives had visited the site and identified still extant flagging marking the boundaries of the site on its northern, western, and southern edges (the eastern edge was defined by the adjacent Airport Road). This area was reflagged and bush hogged prior to our arrival. Although the original site boundaries (see Figure 2) were reported as approximately 245 feet north-south, this would have extended the site into wetlands to the north and on the cut bank of the road to the east. With these areas excluded from research, the bush hogged area was about 225 feet square (or about 1.2 acres).

To provide horizontal control at the site we created a grid covering an area 200 feet north-south by 200 feet east-west (Figure 4). To allow the grid to easily fit into the study area, it was oriented 332° (N28°W). This was a modified Chicago-style grid based on an arbitrary 0R0 point located at the southwest edge of the tract.

A single vertical control point was used for the excavations at 38CH1693 in the center of the site at 100R100 with an assumed elevation (AE) of 10 feet above mean sea level (AMSL). All of the excavations' vertical elevations were tied into this datum.

A contour map of the site was created based on the created grid and assumed elevation datum. This clearly reveals that the site is situated on the north edge of a sand ridge, with the topography falling dramatically (for the low country) to the north and northwest (Figure 4).

Each grid point was indicated by a surveyor's pin flag. The auger tests were excavated using an 10-inch power auger (the equivalent of 0.83 ft²) mounted on a Bobcat (Figure 5). After excavation the fill was hand screened through ¼-inch mesh, with shell being quantified in the field and discarded.

The minimal excavation unit was a 5 by 5 foot unit. Chicora has adopted engineering measurements (feet and tenths of feet) for consistency in its work. Formal excavations at the sites were conducted by hand, using mechanical sifters fitted with ¼-inch inserts for standardized recovery of artifacts and ⅛-inch waterscreening for recovery of faunal remains from all features (Figure 6).

Excavation was conducted by both natural soil zones and arbitrary depths. The site exhibits an A horizon of very dark brown (10YR2/2) loamy sand, designated Level 1. This was stripped off using a Bobcat with a 39-inch toothless bucket. Below this was either shell or a lighter colored sand, often a brownish yellow (10YR6/6) or yellowish brown (10YR5/4) sand, designated as Level 2. Level was flat shoveled to a depth of about 0.2 foot in order to provide a clean surface and good definition of features. While Level 1 was not screened, Level 2 was screened through ¼-inch mesh.

Where excavation continued (in the three deep test units), 0.2 foot arbitrary levels were used, designed Levels 3, 4, and so forth. Excavations were terminated in sterile soil.

Munsell soil color notations were made during the course of excavations, typically on moist soils freshly exposed. All materials except shell were retained by provenience. Shell was weighed (to the nearest pound/kilogram) and discarded on-site. A one-ounce soil sample was retained from each zone. We have previously retained much larger samples, allowing the luxury of a variety of soil studies. With the current curation issues at SCIAA, this is no

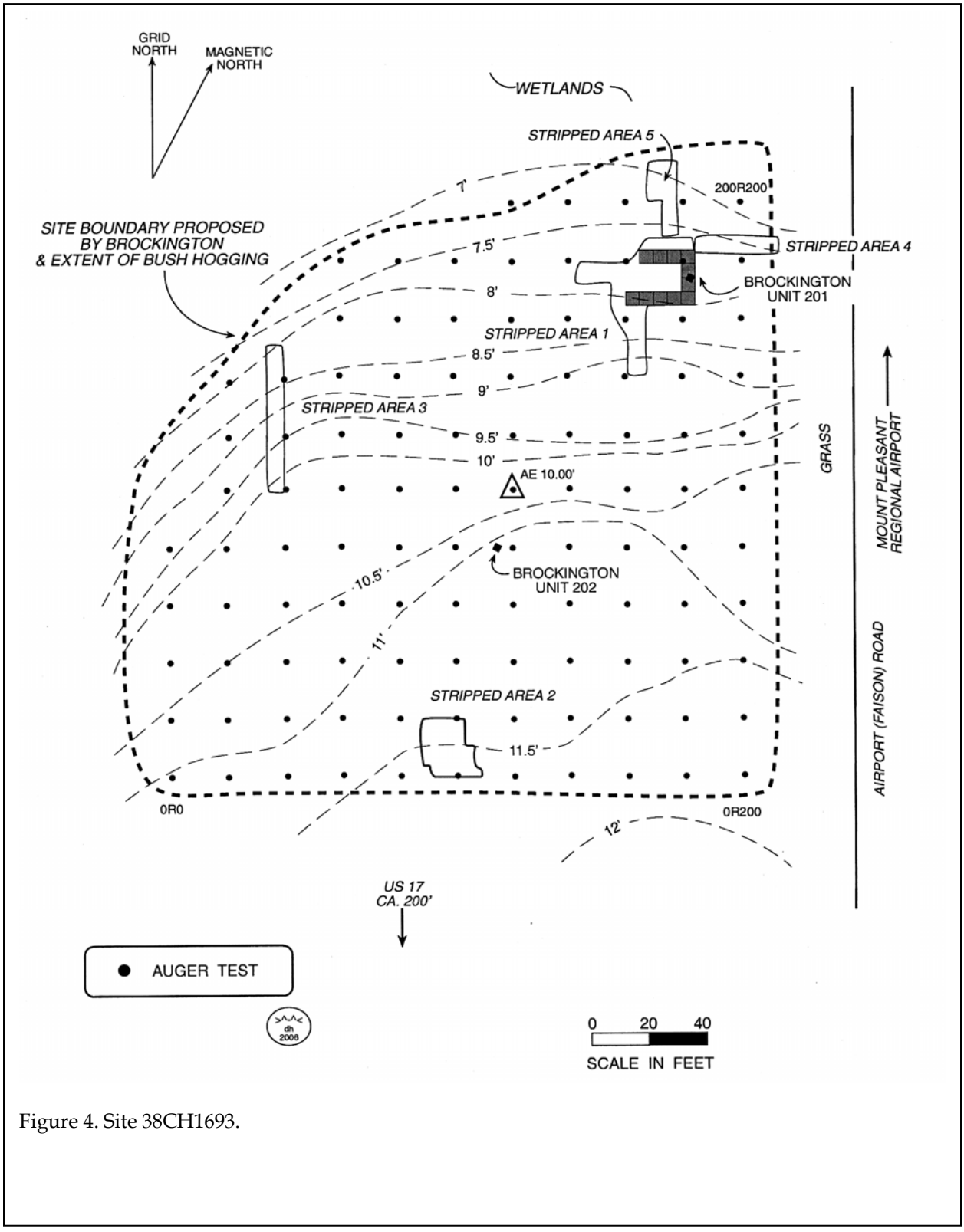

Figure 4. Site 38CH1693.

Figure 5. Using a Bobcat to auger at 38CH1693.

longer practical and we have abandoned the retention of large samples.

Units were troweled and photographed using black and white negative and color transparency film at the base of the excavations. Each unit was drawn at a scale of 1 inch to 2 feet. Features were designated by consecutive numbers (beginning with Feature 1). Features, depending on the evaluation of the field director, were either completely excavated, or bisected (i.e., partially excavated).

Feature fill was waterscreened through ⅛-inch mesh and features, upon completion of their excavation, were also photographed using black and white negative film and color transparencies. Since we anticipated pollen and phytolith studies of many features, larger soil samples were routinely collected by dry screening out shell through ¼-inch mesh, prior to waterscreening. A 5-gallon sample was also retained from each feature for flotation using mechanically assisted water float equipment.

The first screen of each feature was sorted by shell species during artifact collection; each species was weighed separately, allowing for the feature's shell content to be roughly approximated. Although this assumes that shell was homogeneously dispersed through features, we do not believe this introduced appreciable bias. The technique provides an opportunity to calculate both diversity and biomass for the shellfish within features, allowing comparison with vertebrate faunal studies and a better estimation of diet.


Figure 6. Waterscreening feature fill.

As a result of this work, 275 ft² were hand excavated and an additional 1,470 ft² mechanically stripped and plotted in three sites – 900 ft² in the area of the hand excavations (identified as Areas 1, 4, and 5), 290 ft² at the

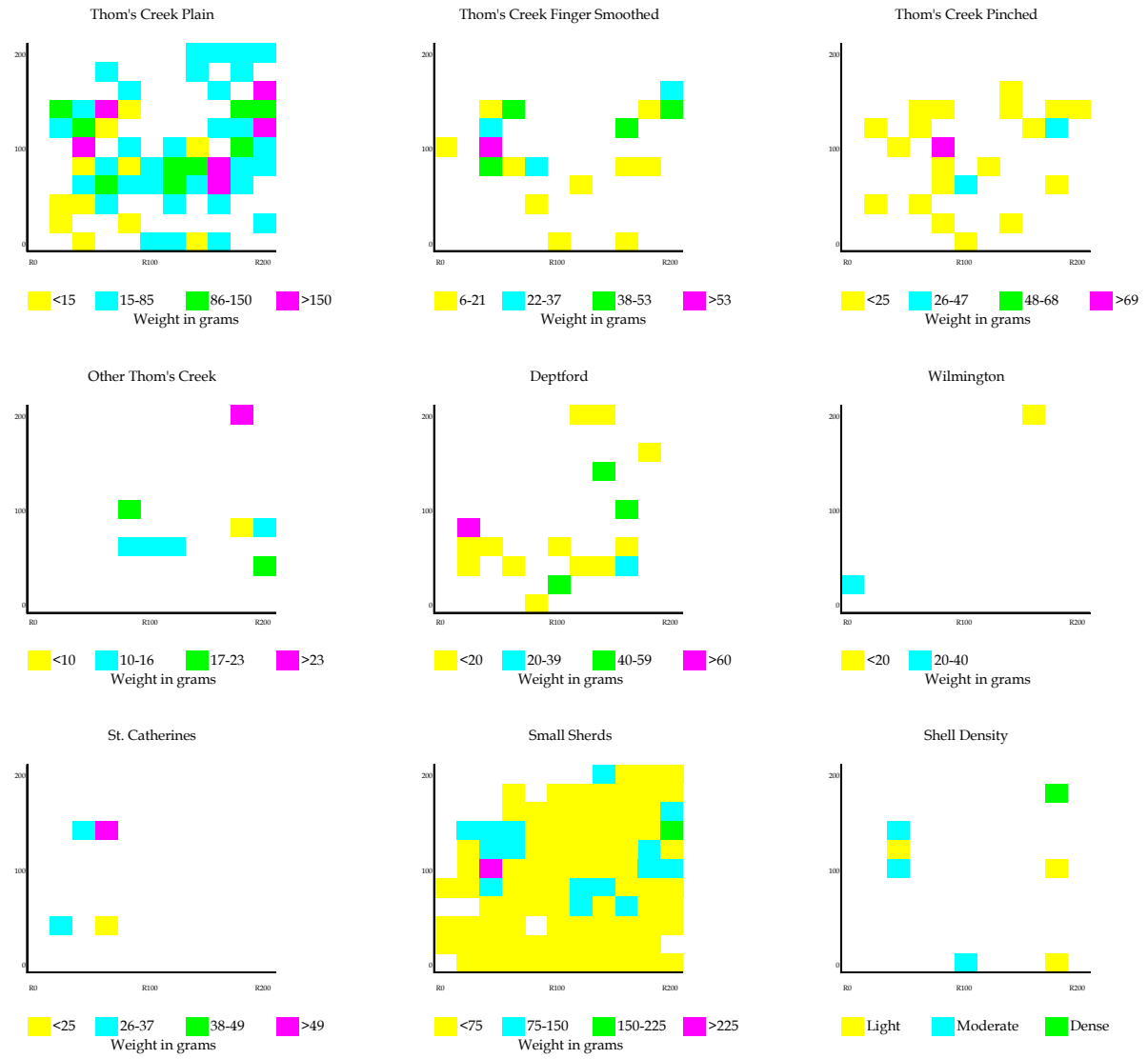

Figure 7. Occurrence of various pottery types and shell density in the close interval auger testing.

southern edge of the site (identified as Area 2), and 280 ft² at the northwestern edge of the site (identified as Area 3). This work was accomplished using the Bobcat excavator and its 39-inch toothless bucket. This provided excellent maneuverability in the wooded site conditions, adequate power to cut through tree roots, and a reasonably clean floor that required minimal clean-up afterwards.

Results of Close Interval Testing

Figure 7 illustrates the results of the auger testing. These figures use the weights (not counts) of the various sherds identified since we believe that this may provide a more unbiased representation of the distribution. The Thom's Creek Plain sherds reveal what appears to be an arc-shaped distribution running across the site, open to the north. When this distribution is compared to the topographic map of the site it

appears that the bulk of the settlement may have taken place on the low elevations overlooking the wetlands to the northwest. The distribution of Thom's Creek Finger Smoothed pottery is essentially similar (although much less common). Other Thom's Creek wares are found in such low densities that no observations can be drawn from the density maps.

Other pottery present in the collection includes Deptford, Wilmington, and St. Catherines. Although the latter two assemblages are too sparse to allow observations concerning their distribution, the Deptford pottery appears to be more common on the southern half of the site, with relatively smaller quantities commingling with the Thom's Creek pottery. This suggests that the Deptford people may have preferred the slightly higher elevations of the site.

None of the distributions provide particularly good indications that the site edges have been identified. In fact, the distribution of small sherds (those under 1-inch in diameter) appears to be found to the edges of the site grid to the south, east, and north. Only to the northwest – along the edge of the sand ridge where it drops into the wetlands – does it appear that we have identified the site boundaries. The site is truncated by Airport Road to the east and it is uncertain how far the site might extend to the south (toward US 17). Nevertheless, it appears that the study area does include the core of the Thom's Creek settlement. In fact, this distribution of the small sherds may be the result of A horizon activities, perhaps logging.

A primary goal of this testing, however, was to identify the distribution of shell on site. Figure 7 illustrates that shell is not abundant when examined at 25-foot intervals. In fact, the only area of dense shell was at 180R180 – in the immediate area of Brockington Test Pit 201 and the area of our proposed block excavation.

Elsewhere across the site shell was encountered at only four locations and was considered moderate at two and light at the other two. Discounting the occurrence of light shell, the two areas with moderate shell were 0R100 (on the south central edge of the site) and 100R40 through 140R40 (along the western edge of the site).

Results of Excavations

The two previous excavations, having been left open since 1999, were readily identified during the initial stage of field work. Unit 201 in the northeast corner of the site evidenced sparse shell in the north and west profiles; unit 202 revealed only yellow sands.

The data recovery plan specified that investigations would focus on the posited shell midden at Unit 201, which was also the area where auger testing revealed the densest shell.

Block Excavations

As a result an initial series of four 5-foot units were laid in along the R185 line from N165 to N180 (Figure 9). These units encompassed the test pit and would provide, in theory, bisect the reported midden. The excavation began by stripping off the A horizon soils using the Bobcat and a 39-inch toothless bucket to expose what we thought would be a midden. As the work progressed we discovered that there was, in fact, shell, but that it was spotty, being found only at the north and central areas.

Once the A horizon was removed, the units were flat shoveled to level them and more clearly define the shell. This work revealed what appeared to be a shell pit in 180R185 and another pit spanning units 170-175R185.

With this finding four additional units were laid out at the southern end, running to the west (165R165-180). Again the A horizon was mechanically removed and the units were flat

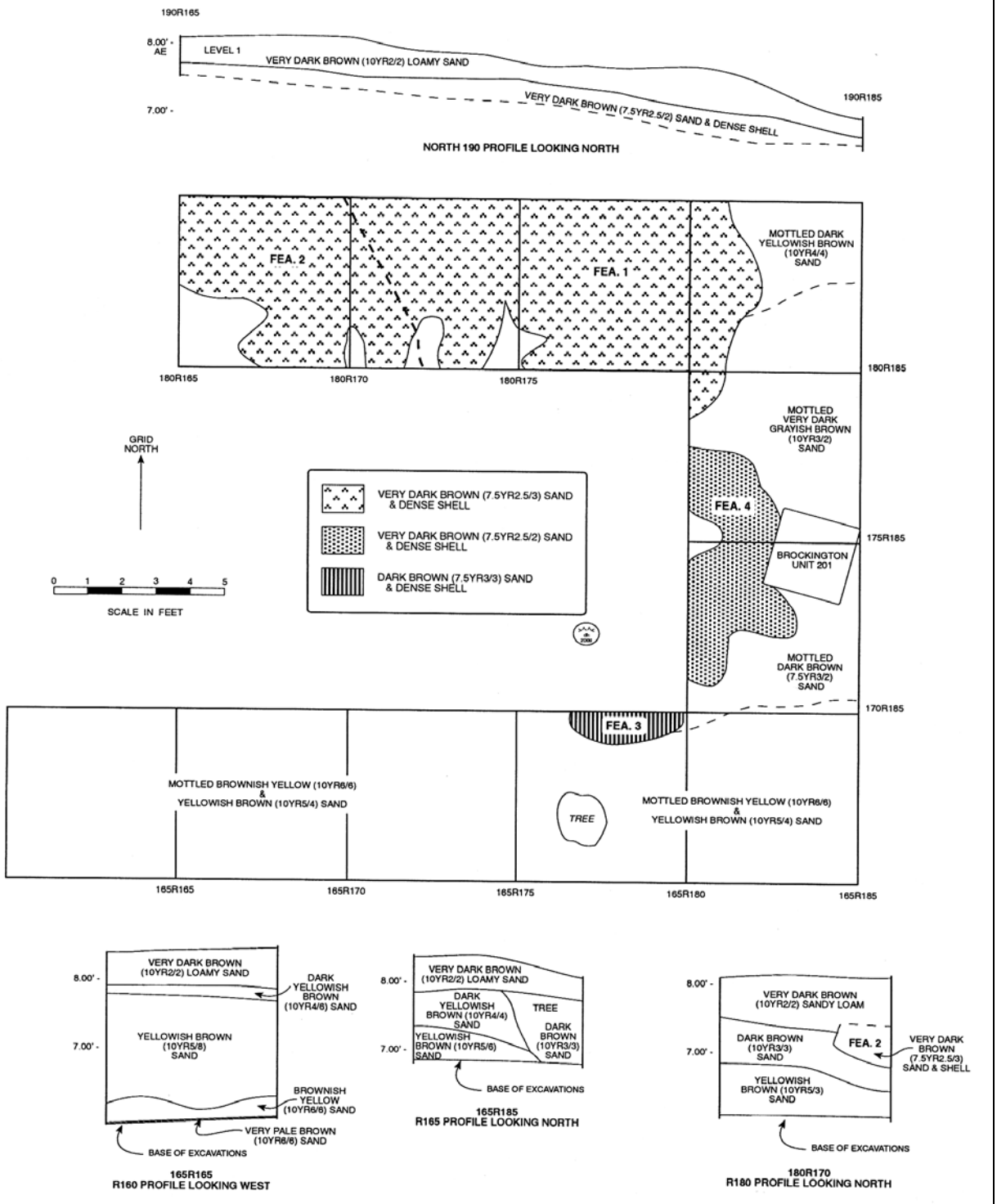

Figure 8. Plan and profiles of the block excavation.

shoveled. This work revealed a small shell pit on the north edge of 165R180, but elsewhere there was no evidence of shell.

An additional three units, 180R170-180, were laid in to the west of 180R185. After the mechanical removal of the A horizon we found dense shell spanning the entire trench. This was flat shoveled and while there were spotty areas lacking shell, it was not possible to identify specific features that might have blurred together to create this deposit.

Mechanical Stripping

At the conclusion of the block excavations mechanical stripping took place using a Bobcat with a 39-inch toothless bucket. Stripped Areas 1, 4, and 5 examined the area immediately around the block excavations, opening an area of about 900 square feet. Stripped Area 1 focused on the area to the west and south of the block excavation, as well as within the two east-west arms of the excavation. This work revealed the extent of several shell pits initially identified through block excavation (discussed below). The work also revealed that there do not appear to be additional features to either the south or west of the block excavation area. Stripped Area 4 extended our view to the east, downslope from the main excavations. No additional features were encountered. Stripped Area 5 extended the investigations to the north and in this area we identified the north edge of Feature 1, as well as four additional shell pits. Three of these pits appear to be identical to Features 1, 2, and 4 (discussed below) and were not excavated. Feature 6, however, appeared to be distinct and the southeastern half was removed.

The examination around the block excavation suggests that shell features were distributed over an area oriented north-south and measuring about 40 by 25 feet (1,000 ft²).

Another area was opened at the south edge of the site, in the vicinity of the moderate shell found in the 0R100 auger test. Stripped Area 2 was 290 square feet in extent and revealed the northern edge of a Deptford midden within the A horizon. At the base of the midden was the subsoil characteristic of the remainder of the site. The midden extended to the south, beyond the site boundaries as originally defined and was not followed. No features, however, were found to the north.

Stripped Area 3, consisting of 280 square feet, was placed in the vicinity of the 100-140R40 auger tests that produced moderate shell. This stripped area revealed five additional shell pits – at least two very large and similar in appearance to those in the block excavation and three others that appear smaller (one possibly representing a shell-filled post hole). One of these large pit was designed Feature 5 and was sampled in order to obtain data for comparison

Figure 9. Stripped area to the north of block excavations, looking south.

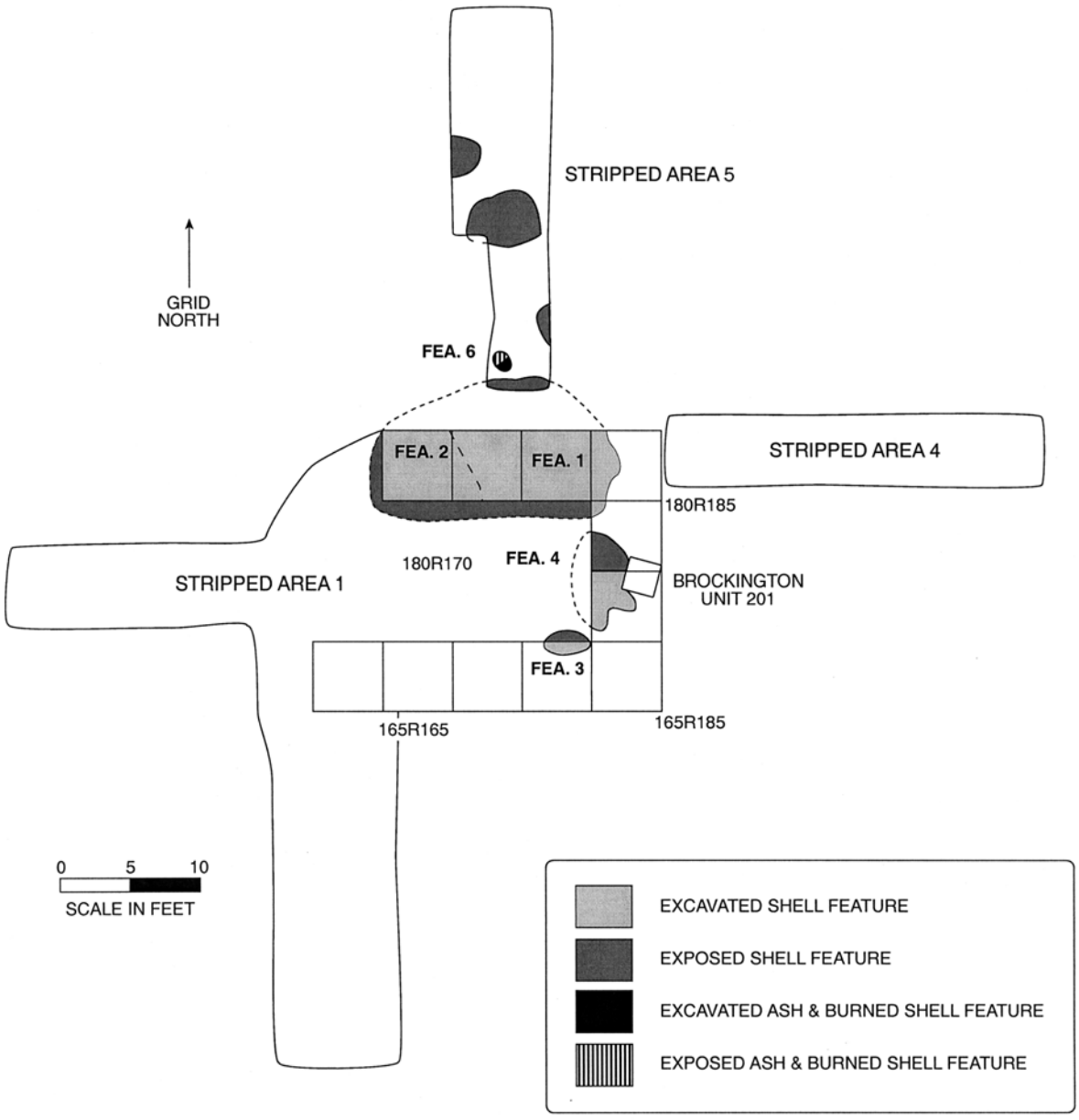

Figure 10. Plan view of Stripped Areas 1, 4, and 5 showing the extent of identified features.

with the block excavation area. Thom's Creek pottery was abundant in this area (which of course represents the western arm of the arc identified in Figure 7).

Features

Feature 1

Excavations began at the eastern edge of the shell lens identified in the 180R170-185 line.

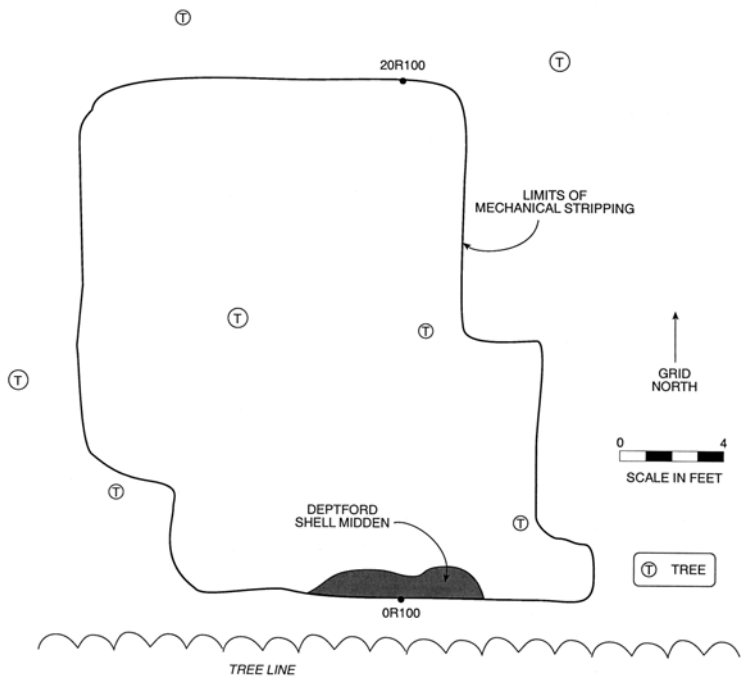

Figure 11. Plan view of Stripped Area 2 showing the Deptford midden.

The shell was removed using trowels and, where appropriate, shovels. Excavation revealed a uniform shell lens about 0.4 to 0.6 foot in depth. At the base of the shell was a zone of very dark brown (7.5YR2.5/3) sand about 0.1 to 0.2 foot that appears to represent organic leaching and light shell from above.

The feature was found to be about 7-feet in length, based on the floor, which revealed an upward slope where it was intruded into by Feature 2. The approximate center of Feature 1 was 183R179 and only 5-feet were exposed north-south.

All of the shell was removed and waterscreened through ⅛-inch mesh, allowing for excellent recovery. A total of 135.8 kg of shell were recovered from the feature, with the remains dominated by oyster (see Table 1). Artifacts from the feature include abundant Thom's Creek pottery, handpicked floral remains with large quantities of carbonized hickory nutshell, very large amounts of faunal remains with fish vertebra to 1 mm in diameter, and several coprolite fragments.

Other samples collected from the feature include a soil sample and a flotation sample. A hickory nut shell fragment has been submitted to Beta Analytic for AMS dating. A soil sample has been submitted to Paleo Research for combined pollen and phytolith analysis. Additional soil has been submitted to Hahn Laboratories for macronutrient analysis. The flotation sample has been processed, revealing abundant floral remains which are awaiting further studies. The faunal remains are being cataloged for submission to the Cobb Institute.

The function of features such as this has traditionally been interpreted as shell steaming or roasting pits. The failure to encounter burned or charred shells suggests that the shell was protected from the fire using green leaves and that the pits were used to contain heat that promoted the opening of the shells. This is supported by the abundant charcoal and absence of ash. Afterwards the pits served as convenient receptacles for the disposal of the shellfish.

This remains a reasonable explanation, at least for the abundant bivalves, such as oyster, ribbed mussel, and stout tagelus. The occurrence of large numbers of periwinkles (which cannot be processed in the same manner), however, suggests that the pit may have received more general trash. This would also serve to explain the abundant faunal remains also present.

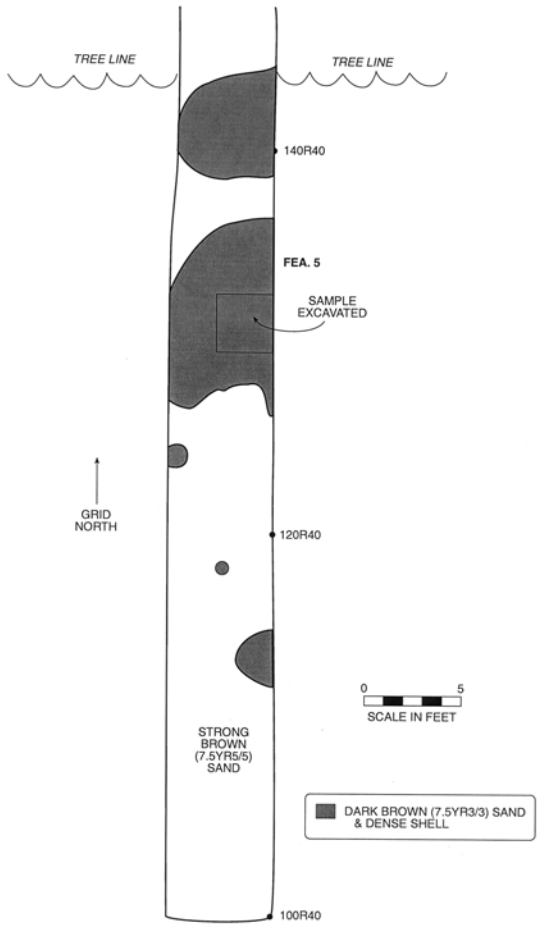

Figure 12. Plan view of Stripped Area 3.

While it is not possible to relate the contents of the feature to a single meal, the absence of lensing suggests that the pit remained open (or unfilled) for a relatively short period of time. If it does not represent a single meal, then it likely represents a very short episode of discard. This feature is, in virtually all respects, identical to the shell-filled pits of Lighthouse Point Shell Ring (Trinkley 1980: 170-172, 184-186).

Feature 2

Feature 2 intruded into Feature 1 and was found in the western end of the 180R165-185 block, with a center point at approximately 182.5R173. The exact boundary was blurred by the remains of a tree which had intruded through both features. Nevertheless, this feature covered about 9 feet east-west and had a depth of up to 1.02 feet. As with Feature 1 the base of the feature was undulating, with a very dark brown (7.5YR2.5/3) sand at the base.

Excavation and processing of the feature was identical to Feature 1 and the shell weights are shown in Table 1. Oyster again dominates the collection, followed by periwinkle. The function of this feature also appears to be identical to Feature 1.

Feature 3

While similar in many respects to Features 1 and 2, Feature 3 is considerably smaller, measuring only about 3.4 feet east-west and only 2 feet north-south. The feature is centered at 170R178.5 and is bisected by the N170 profile. Upon excavation the feature was found to be basin shaped and to measure about

Table 1.
Shell Weights Recovered from Features

Fea	Total Shell Wt. (Kg)	Oyster Kg (%)	Periwinkle Kg (%)	Clam Kg (%)	Stout Tagelus Kg (%)	Ribbed Mussel Kg (%)	Whelk Kg (%)	Other Kg (%)
1	135.80	112.44 (82.8)	18.74 (13.8)	t	-	t	t	4.62 (3.4)
2	125.70	105.84 (84.2)	13.20 (10.5)	t	t	t	-	6.66 (5.3)
3	5.90	4.79 (81.2)	0.74 (12.5)	0.37 (6.3)	-	-	-	-
4	53.3	49.04 (92.0)	4.00 (7.5)	t	t	t	t	0.26 (0.5)
5	23.9	11.95 (50.0)	7.48 (31.3)	-	2.99 (12.5)	1.48 (6.2)	-	-
6	2.8							

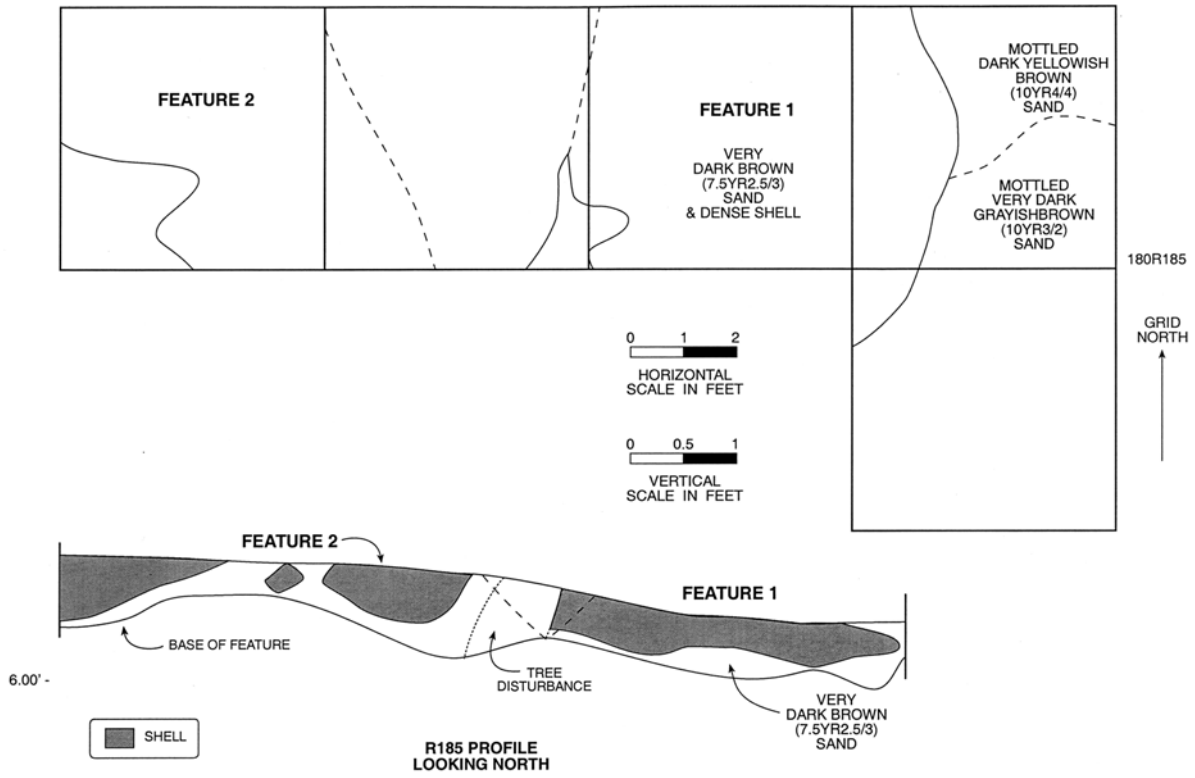

Figure 13. Plan and profile of Features 1 and 2.

0.46 foot in depth. The profile reveals a single, homogenous level of dense shell, while the base consists of a dark brown (7.5YR3/2) sand with very occasional small and heavily fragmented shell fragments. There is also a lens of slightly lighter brownish yellow (10YR6/6) sand at the eastern edge.

This feature is similar to many identified at Lighthouse Point Shell Ring (Trinkley 1980:184-186), where the shell appeared to be at one edge, while the soil appeared to be raked to the opposite edge. One interpretation is that this is an artifact of opening the pit and pulling back a soil cap to recover the steamed oysters. The only clear difference is that most of the Lighthouse Point pits were far larger (similar in size to Features 1 and 2).

No radiometric dating, pollen, or phytolith studies are being conducted on Feature 3 because of its small size. A soil sample is being examined for macronutrients and a flotation sample has been processed from the feature. The proportion of oyster and periwinkle is very similar to Features 1 and 2, although clam is far more common in this pit than any other on the site. Unfortunately, the shells are badly fragments and insufficient intact edge fragments were recovered to allow seasonality studies by Claassen.

Feature 4

Feature 4 is centered at 175R180 and the exposed portion measured 6.8 feet north-south. Although bisected by the R180 line, the feature (based on stripping information) extends east-west about 5 feet – resulting in a pit that is slightly smaller than Features 1 or 2. Upon

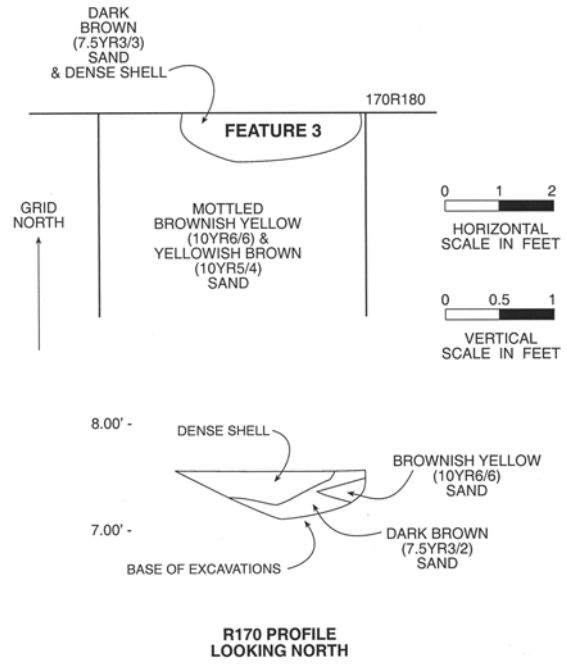

Figure 14. Plan and profile of Feature 3.

excavation the feature was found to be about 1.3 feet in depth. The profile is also consistent with Features 1 and 2, exhibiting a dense and homogenous shell lens with a very dark brown (7.5YR2.5/3) sand below. The lower zone is likely the result of leaching and it contains very sparse and highly fragmented small shell fragments.

The feature is dominated by oyster and periwinkle comprises a much lower proportion of the shell in this feature than the others identified at the site.

It was this feature that the Brockington Union 201 encountered and which was interpreted to represent a midden deposit. This illustrates the problem of using small test units to interpret features.

Remains from this feature are similar to those recovered from Features 1 and 2. A sample has been submitted to Beta Analytic for AMS dating; additional samples have been submitted to Paleo Research for pollen and phytolith study; and a sample is being examined for macronutrients. A significant quantity of faunal remains was recovered through ⅛-inch waterscreening and these are being submitted to the Cobb Institute. Floral remains have been recovered from water flotation.

Feature 5

This is a shell pit found in Stripped Area 3, centered at 133R137.5. The exposed portion of this feature measures about 11.6 feet north-south and about 6 feet east-west. A sample measuring 2.5 feet north-south by 3-feet east-west (7.5 ft² or 16% of the total feature) was removed for waterscreening through ⅛-inch mesh.

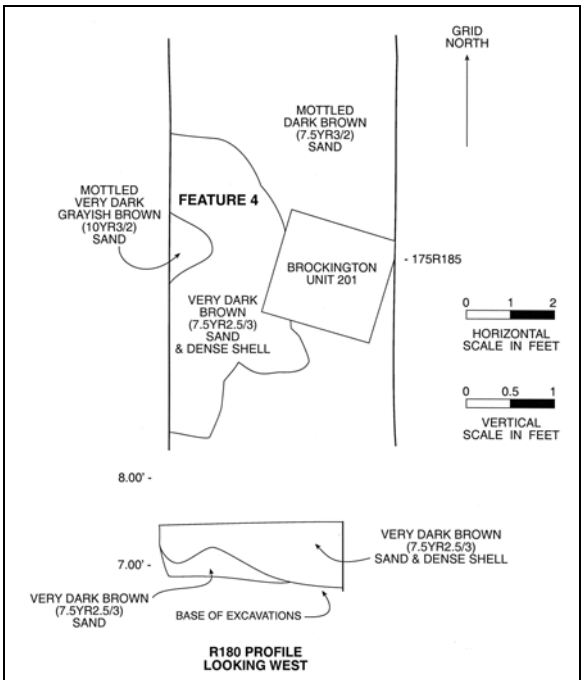

Figure 15. Plan and profile of Feature 4.

Unlike the other shell pits, Feature 5 failed to reveal a distinct leach zone at its base. The depth of the shell was about 0.7 foot. It was also distinct from Features 1, 2, and 4 in that it was less homogenous. Oyster comprises only about 50% of the shell weight, with a substantial quantity of periwinkle and stout tagelus – both of which appeared to represent distinct dumps or clusters within the feature.

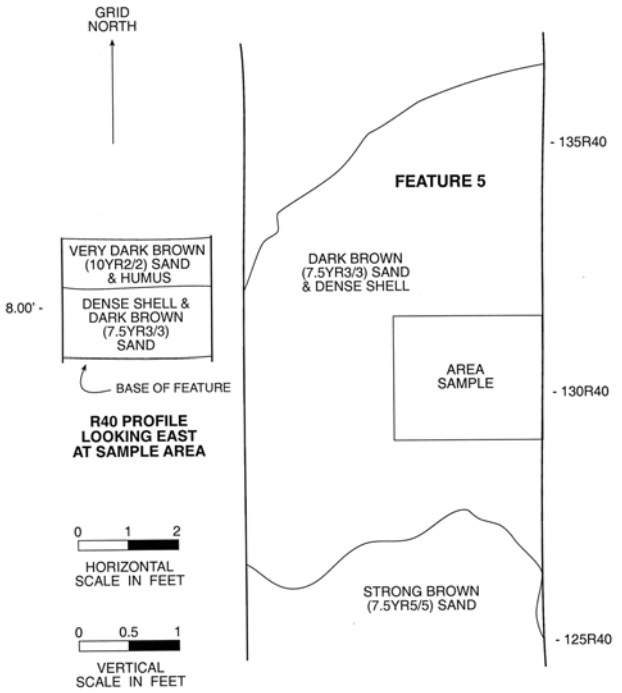

Figure 16. Plan and profile of Feature 5.

A sample from this feature is being subjected to AMS dating, pollen and phytolith studies are being conducted on a soil sample, and macronutrients are being examined from the soils. A collection of faunal remains will be submitted to the Cobb Institute for study and s flotation sample has been processed.

Feature 6

The final feature examined in this study is centered at190R174 and was exposed from Stripped Area 5 north of the block excavation. This feature measured 2 feet northwest-southeast by 1.4 feet northeast-southwest and consisted of light gray (2.5Y7/1) burned and crushed shell with ash surrounded by a collar of brown (10YR4/3) sand with sparse shell. Upon excavation of the southeast half, the profile revealed that the feature was 0.64 foot in depth.

This feature is reminiscent of those identified at Lighthouse Point: pits characterized by a smaller size, complete oxidation producing ash rather than charcoal, cemented masses of shell and ash resulting from the high burning temperature, and smaller quantities of artifacts (Trinkley 1980:184).

It was suggested that while the large shell pits were used for steaming shellfish, the ash pits might have been used for roasting or perhaps only for warmth during winter months (Trinkley 2980:186). Curiously, the two types of features, at shell rings studied, are found in different ring areas – the shell pits are found under and within the ring, the ash pits are found at its inner edge.

The one pit identified at 38CH1693 does not exhibit the quantity of ash or the cemented masses identified elsewhere, but the shell is entirely crushed and burnt. Artifacts are sparse, small in size, and fire smudged. And the darker soil around the feature is consistent with on-site burning.

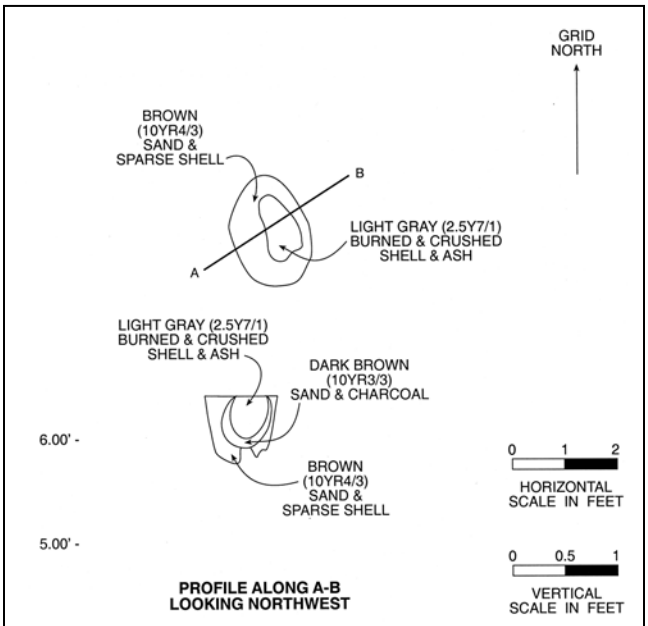

Figure 17. Plan and profile of Feature 6.

Samples from this feature have been submitted for phytolith study, although it seems unlikely that pollen would survive the fire. No radiometric dating is being conducted since charcoal is very sparse. Faunal remains are also uncommon and floral remains are very sparse in the flotation sample.

Deep Tests

We anticipated excavating one quadrant of each 10-foot midden unit to sterile soil. Although no midden was encountered, this still seemed to be an appropriate technique to examine soil genesis and the effects of bioturbation at the site. The work would also allow comparison to the excavation conducted in Brockington's Unit 201, where excavation was taken to a depth of about 68 cm (2.2 feet) generally in either 10 cm (0.3 foot) or 20 cm (0.6 foot) levels. Artifacts were apparently found in only the four levels. It appears that if the "shell midden" (revealed by this work to be Feature 4) is ignored, the levels below the midden contributed very few sherds and had a combined density of about 14 sherds per cubic foot (declining from 24 to 1 sherd per cubic foot).

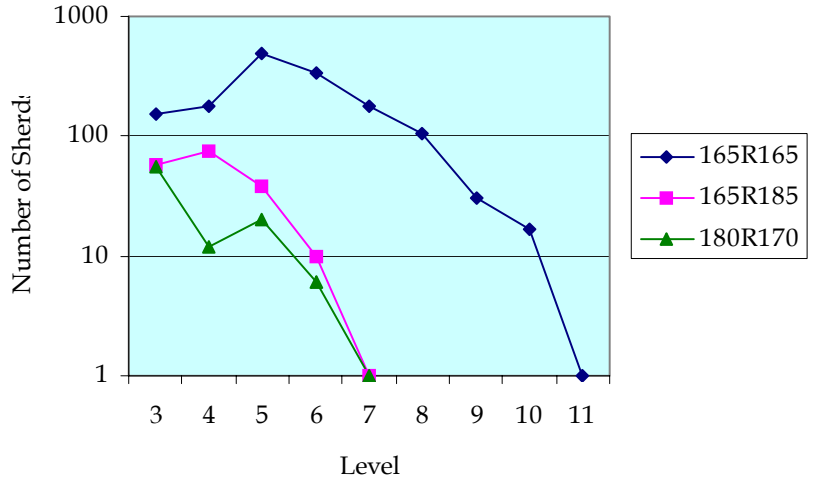

Figure 18. Sherd density by level in the deep tests.

Consequently, deep tests were excavated at units 165R165, 165R185, and 180R170, providing aerial coverage in the block excavation. Each unit was excavated in 0.2 foot levels with screening through ¼-inch mesh. In each case excavation began either at the base of the flat shoveled Level 2 or the base of the excavated feature in that unit.

165R165

This unit had no feature and excavation began about 0.8 foot below the extant ground surface. A series of eight levels (designed levels 3 through 10) were removed, taking the unit to a depth of about 2.5 feet below the surface. The density of sherds ranges from a high (in level 5) of 100 sherds per cubic foot to a low of only 3 per cubic foot (in level 10) – significantly higher than Brockington's Unit 201. The graph of sherds by level is shown in Figure 18, illustrating the peak in level 5 and the steady decline through the remaining levels. Artifacts were dominated by pottery, although occasional charcoal and several chert flakes were present.

The unit revealed a yellowish brown (10YR5/8) sand found in levels 3 through 9 overlying a brownish yellow (10YR6/6) sand in level 10. At the base and on the floor of the unit was a very pale brown (10YR5/4) sand. No strata or lamina were apparent.

165R185

This unit had no features, but the base of Level 2 did reveal several tree stains which certainly contributed to the movement of artifacts through the various levels. Often, however, these stains were only clearly visible

in profile. Excavation sought to block these out and excavate them separately, especially in the lower levels, to preclude the decision on sterile soil being biased by materials that might have been in the stains. This unit contained only four levels (levels 3-6) below level 2, for a total depth of 1.5 feet. The profile revealed, below the Level 1 very dark brown (10YR2/2) loamy sand, about 0.5 foot of dark yellowish brown (10YR4/4) sand that laid on a yellowish-brown (10YR5/6) sand to the base of the excavations.

Figure 19. Excavation of the deep test in 165R165, view to the southeast.

Artifacts in this unit included only sherds, although small quantities of carbonized nutshell were occasionally identified. Densities in this unit range from a high of 15 sherds per cubic foot to a low of 2 – more in line with those identified from Unit 201.

180R170

The final unit investigated had a series of five levels below Level 2 and Feature 2, with artifact densities ranging from 11 sherds per cubic foot to a low of less than 1. This is the lowest density at the site and may be related to the dense, overlying shell feature.

The profile of the unit, below the shell of Feature 2, was a dark brown (10YR3/3) sand to a depth of nearly 0.5 foot, perhaps reflecting leaching from the overlying shell. Below was the yellowish brown (10YR3/2) sand observed in the other units.

Only pottery and very small quantities of floral remains were observed in the various levels – no lithics were recovered.

CONCLUSIONS

Initial Findings

Absent detailed analyses, our initial findings are largely speculative. However, some observations are possible, even at this early stage.

Settlement Observations

Perhaps one of the most obvious conclusions is that the site is likely larger than originally projected as a result of the survey (Pecorelli and Harvey 2002). The auger tests failed to identify boundaries to the north – where both auger tests and stripping suggests Thom's Creek occupation may continue, south – where auger tests and stripping reveal the presence of at a Deptford midden, or west – where auger tests suggest low density remains continue. Only to the east, where the site is defined by a road, is there a boundary. Even there, the auger tests suggest that the road cut through at least part of the site and it is uncertain if remains might extend across the road to the east.

Thus, it is difficult to speculate on the site size. The current study has identified one settlement cluster measuring about 25 by 40 feet that is characterized by multiple shell pits. A second such area is found about 150 feet to the southwest. Both occupation areas are on slopes into the wetlands to the north, at similar elevations.

Surrounding the two known clusters of shell pits there is light to moderate pottery – much of this pottery, however, is highly fragmented. We are inclined to believe that much of this pottery has been distributed across the site by twentieth century activities, perhaps plowing, but certainly silvacultural activities (virtually all of the trees on the property today post-date Hurricane Hugo).

The remains appear to be clearly associated with what is a relic beach ridge. The Deptford remains are found on a higher elevation and are within the A horizon, being covered by little aeolian sedimentation. The earlier Thom's Creek remains are found at a lower elevation and are covered with upwards of 0.5 foot of aeolian sediments.

While the elevation of the two camps is likely associated with changes in sea level, both were apparently attracted to this location by the tidal creeks that were originally just to the north of the site. Today, because of sea level increases, these fingers are largely filled in and are just visible on aerial photography. The modern soil survey identifies these fingers as Meggett clay loams – level, poorly drained soils with clayey subsoils that were historically used for rice production. The surface soils are black to dark gray clay loam and the seasonal high water table is often found at the surface and rarely more than 2 feet in depth (Miller 1971:19, 54).

Thus, while the site is today in an interior location with no obvious tidal marsh influences, prehistorically it is likely that these tidal creeks came to within 500 feet of the Thom's Creek occupation. If we examine a 0.5 mile catchment, we see access to multiple marsh environments both the north and south of the site.

Within 0.7 mile of the site to the south are three known shell rings – Stratton Place, Buzzard Island, and Crow Island (although there are some legitimate questions concerning Crow Island). It is tempting to suggest some relationship between 38CH1693 and these shell

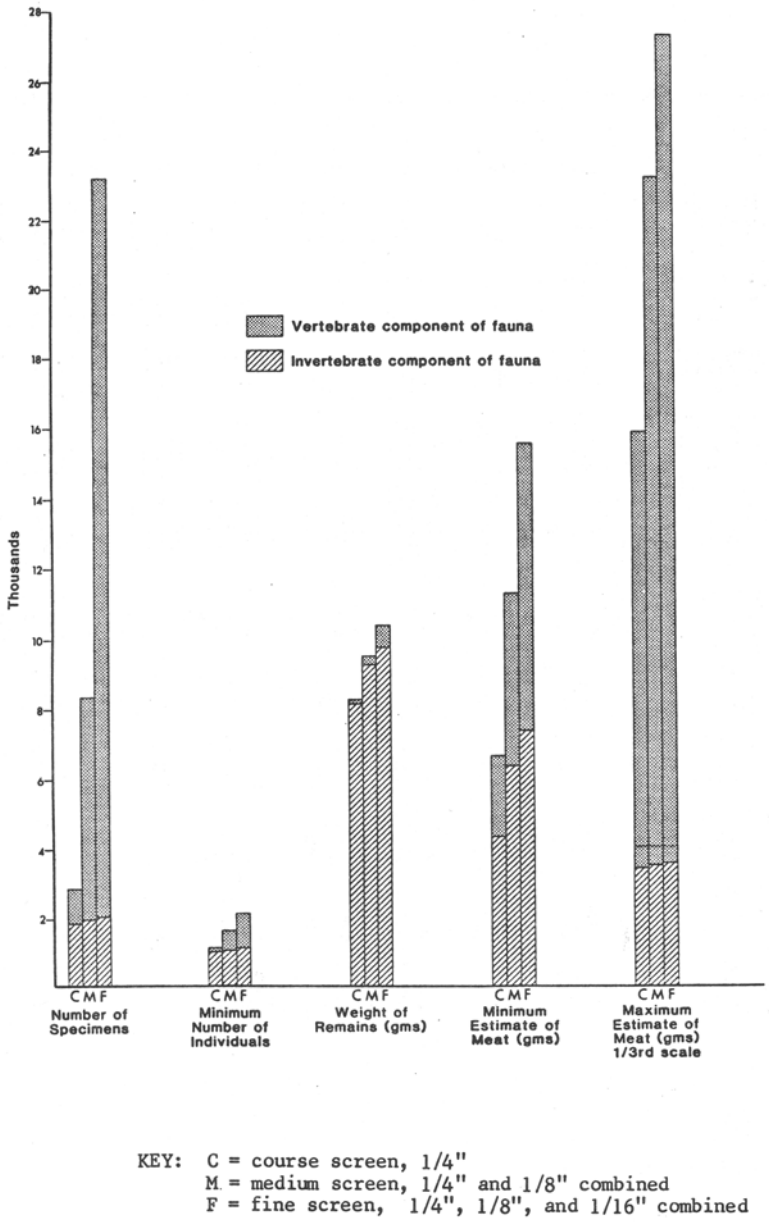

Figure 20. Comparison of data recovery by screen size (from Wing and Quitmyer 1985:Figure 3.1).

rings, although no evidence has yet come to light to support such supposition.

Subsistence Observations

The use of fine screening has allowed an exceptional faunal collection from 38CH1693. Over two decades ago Wing and Quitmyer (1985) warned researchers that reliance on ¼-inch mesh would dramatically bias any efforts to understand coastal subsistence. They point to two species, shrimp and stardrum, as being essentially unidentified in ¼-inch screening, rarely identified in ⅛-inch, but rather common in 1/16-inch mesh (Wing and Quitmyer 1985:58). Figure 20 illustrates the difference that results, whether one examines the number of specimens, the minimum number of individuals, the weight of the remains, or the minimum/maximum meat weights (biomass). This point is again made painfully clear by Reitz and Wing (1999:120-121, 145). Yet even today research has not uniformly adopted finer screening. For example Russo and Heide (2003) used only ¼-inch mesh at Sewee. In contrast, Saunders(2002) used mesh to 3/32-inch, at least for small samples. Recent work at Stallings Island used ⅛-inch mesh (Sassaman et al. 2006:548).

Certainly the reason for the slow acceptance has nothing to do with doubts concerning the benefits or importance – they have been too clearly documented to be doubted. Rather, the movement from ¼-inch to finer screen involves appreciably greater labor which, in the world of compliance, translates into money. This is unfortunate.

Work at 38CH1693 relied routinely on ⅛-inch mesh. Rather than sampling, all of the feature that was excavated was screened

through what Quitmyer would classify as medium screen. In addition, however, a 1-square foot sample of Features 1, 2, 3, and 5 was retained and screened, in the lab, through 1/32-inch mesh. As Saunders (2002:98) observes, this very fine screening allows "for the recovery of the smallest size class of *Bonnea impressa*, a small, parasitic oyster drill for which size is an indication of season of death." The screening and sorting of these samples is still in progress.

Current indications are, however, that even the ⅛-inch waterscreening has produced a very large collection of fish remains, with vertebra ranging down in size to about 1 mm (retained on the ⅛-inch screen through water surface tension). Certainly the best comparative data will come from the recent work at Fig Island.

One goal of our research is to be able to incorporate both vertebrate and invertebrate (especially shell) into biomass estimates. Saunders (2002:149-151) spends considerable effort criticizing the failure of other researchers to do precisely this. In contrast, Claassen observes:

> the value of meat weight estimates of shellfish flesh is little. When these estimates are combined with similarly derived estimates for vertebrate flesh and plants to talk about nutrition and dietary makeup, the enterprise is hopeless (Claassen 1998:191).

This skepticism is based on Claassen's detailed comparison of various allometric formulae to actual live weight collections, as well as discussion of other biases. As a result, her concerns appear valid.

Thus, while the research at 38CH1693 has incorporated a methodology that serves to recover relatively unbiased samples of faunal remains, it is uncertain if the goal of comparing the dietary importance of the various foods is possible. It may simply be possible to present the data, allowing some researchers to ignore it as unreliable and other researchers to accept and use it as comparison to their own work.

At the level of qualitative observation, the features at 38CH1693 do present some interesting findings. Oyster is clearly dominant in all of the features in the one settlement area investigated using block excavations. And in each case oyster was followed in abundance by periwinkle. In contrast, the single feature examined from the western settlement reveals a different profile, with oyster representing only 50% of the shell weight and a relatively large amount of stout tagelus being present.

If we ignore the warnings of Claassen and examine the biomass (Table 2), the impression from the eastern settlement does not change dramatically. Oyster remains the dominant contributor, accounting for two-thirds to about four-fifths of the invertebrate biomass, followed by periwinkle. Perhaps the surprise is that in three of the four features, the lowly periwinkle contributes around a quarter of the biomass present.

The situation in the western settlement area, at least based on the limited sample, is different. Here oyster – while representing 50% of the shell weight, contributes only 17% of the biomass. The major contributor is stout tagelus, providing nearly three-fifths of the biomass. Periwinkle remains a significant factor in the diet.

In none of the samples do other shellfish, including clam or ribbed mussel, provide much meat, although they seem to be occasionally noticeable in their contributions. Only whelk appears to always be a very occasional food source.

The results are very different than those Saunders (2002:Table 21) reports from Fig Island. There oysters contributed 54.2% of the

biomass, followed by mussel with 27.2%, stout tagelus with 4.5%, and periwinkle providing only 2.9% (this represents the average of the two proviences for which data are presented). Of course, given the complexity of Fig Island, it is unlikely that the two samples can be taken as representative. And while the data from 38CH1693 is more complete, even it reveals that there can be distinct differences in collections, whether the result of season, personal preference, opportunity, environment, or random chance.

Table 2.
Estimated Biomass Based on Shell Weights Recovered from Features
(allometrics based on Quitmyer 1985:Table 2.3)

Fea	Oyster Kg (%)	Periwinkle Kg (%)	Clam Kg (%)	Stout Tagelus Kg (%)	Ribbed Mussel Kg (%)	Whelk Kg (%)
1	13.49 (73.8)	4.79 (26.2)	t	-	t	t
2	12.59 (78.8)	3.39 (21.2)	t	t	t	-
3	0.63 (67.0)	0.23 (24.5)	0.08 (8.5)	-	-	-
4	6.02 (84.5)	1.10 (15.5)	t	t	t	t
Combined Average	32.73 (77.3)	9.51 (22.5)	0.08 (0.2)	t	t	t
5	1.55 (17.0)	1.99 (21.8)	-	5.37 (58.9)	0.21 (2.3)	-

Although there are no faunal data available at present for comparison, we can observe that the smaller vertebra present, around 1 mm in diameter, might provide about 5 g of biomass. The larger vertebra, about 7 mm in diameter, might provide about 724 g of biomass. Both are relatively small fish and the prevalence of this size range provides additional support for the observation made from data at Lighthouse Point:

> at least two different methods of procurement were required. The small fish, occupying a shallow water intertidal creek habitat, and tending to occur in small aggregations, may have been most easily procured with either gill nits or seines [we may also add dip nets]. The gill nets would have been anchored in the channels where the fish are forced to move (as with the fluctuating tide), and would have caught selectively those fish which could pass their head through the net, and entangled the gills when the fish attempted to back out (Trinkley 1980:113).

Several coprolites were recovered from the various features. Where intact, they are of a size and shape similar to those recovered from Lighthouse Point and consistent with human production. They are all heavily calcified, with little or no organic material still present (again typical of the specimens recovered from Lighthouse Point). Previous efforts to reconstitute coprolites from shell midden contexts have met with relatively little success, although it has been possible to identify some components (Trinkley 1980:225-233).

Artifactual Observations

The most common artifact at 38CH1693 was pottery. No tabulations (other than for the auger tests, see Figure 7) are currently available. It is possible to note that while Thom's Creek Plain sherds dominate the collections, quantities of Thom's Creek (Awendaw) Finger Pinched, Thom's Creek (Awendaw) Finger Impressed, Thom's Creek (Shell/Reed) Punctate, and Thom's Creek Incised are all present on the site. In contrast, Pecorelli and Harvey (2002:48) report only Plain, Finger Pinched, and "Simple Stamped" (which may have been Finger Impressed). This assemblage is very similar to that reported from Stratton Place, where 77% of

the sherds were plain, 17% were Thom's Creek Finger Pinched, 3% were Thom's Creek Reed Punctate, and 1% each were Thom's Creek Reed Drag and Jab, Thom's Creek Shell Punctate, Thom's Creek Incised, Thom's Creek Simple Stamped, and Thom's Creek Finger Impressed.

Lithics are extremely rare, with only a fragmentary rhyolite biface and three chert flakes recovered. The flakes, are suggestive of resharpening an existing tool and the rarity of lithics is typical of coastal sites.

Although not yet quantified, a small quantity of worked bone was observed during waterscreening. These include both worked antler and probable worked bone pins. The worked antler is likely socketed and represents worked bone projectile points. The bone pins have been previously suggested to represent weaving tools (Trinkley 1980:218). None of probable pins fragments found at 38CH1693, however, are engraved.

Not found are worked whelk or other shell tools. The occasional bivalve with what might appear to be a drilled hole invariably appears to be attributable to natural events or predators, such as boring clams.

Investigations did produce a relatively large number of sherd abraders and hones. Many evidence grooves where bone has been shaped, smoothed, or polished. These tools were abundant at Lighthouse Point (Trinkley 1980:203) and called abraders. Since then they have often been called hones, while Thomas and Larsen (1979:44-46) use the term abrader to refer only to broad wear patterns which they classify into five types. Regardless of the specific terminology, deep grooves, shallow grooves, flat surface abrasion, and rounded edge damage have been observed on the sherds from 38CH1693. It is likely additional types of damage will be identified as research continues.

Compliance with the Data Recovery Plan

The data recovery plan stipulated that the site would be investigated using close-interval (20-foot) shovel testing. Mechanical auger testing was conducted at 20-foot intervals, fulfilling this requirement.

The plan stipulated that up to 300 square feet in the immediate area of Brockington's Test Unit 201 would be subjected to block excavations with the overlying A horizon mechanically removed without screening to expose the midden. The midden would then be screened through ¼-inch mesh with samples screened through ⅛-inch mesh. The study exceeded the data recovery plan. A total of 275 square feet were opened. When the excavations failed to identify midden, but rather found a series of features, all of the exposed features were investigated – typically with 100% of the exposed feature excavated – and all of the feature fill was waterscreened through ⅛-inch mesh.

The data recovery plan also specified that a portion of each 10-foot unit would be excavated into the yellow sand for a recovery of artifacts below the midden. A series of three 5-foot units were excavated as deep tests, with each unit taken to sterile soil.

Finally, the data recovery plan also specified that the field investigations would mechanically strip areas around the excavation in order to determine the extent of the midden and the possible presence of other features. This was accomplished with the use of a Bobcat fitted with a 30-inch toothless bucket. The area of and radiating outward from the block excavations was stripped. This work revealed that Thom's Creek features extended northward. One of these features – a small pit with ash and burned shell – had not been previously encountered at 38CH1693 and it was sampled. Other features were plotted and the spatial distribution of the occupation was determined.

In addition, two other areas that revealed shell in the auger testing were also examined. One of these was found to be a second Thom's Creek occupation area, not previously noted by Pecorelli and Harvey (2002). One of the features from this area was sampled to allow comparisons to be made to the primary block. The other stripped area was identified as a Deptford midden. Since the research design did not incorporate Deptford phase research, this midden was noted, but no additional investigations were conducted.

A series of four AMS dates are being obtained. These will date Features 1, 2, 4, from both the main block and Feature 5 from the second Thom's Creek block. These should provide very secure dates for the site and perhaps allow comparison of the two settlement areas.

A series of five samples, from Features 1, 2, 4, 5, and 6 have been submitted for pollen and phytolith analyses. These will help paleoenvironmental reconstructions and may assist in the identification of wild food remains.

A series of soil samples from Features 1-6 and an off-site control sample have been submitted for macronutrient analysis. These may help with our discussions of feature functions.

Four flotation samples – from Features 1, 2, 4, and 5 – have been processed using mechanically assisted water flotation. These reveal considerable quantities of carbonized material.

The faunal remains are being cataloged and will be submitted within the next several weeks to the Cobb Institute for analysis. Shell remains are still in the process of being examined, with screening down to 3/32-inch. Taken together we hope that these data will address a broad range of seasonality and subsistence questions.

An updated SCIAA site form has been prepared and submitted.

The data recovery plan, therefore, has been fulfilled as proposed and we request that the SHPO approve the management summary and concur in the level of investigations.

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