

ABSTRACT

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This is a study of the prehistoric pottery from the Barber Creek site located along the Tar River drainage in Greenville, North Carolina. Stratified archaeological remains are present in a one meter deposit of sand spanning the Archaic and Woodland periods (ca. 8000BC-AD1650). This thesis focused on an analysis of over 2700 pottery sherds from the Early and Middle Woodland periods at Barber Creek. In particular, this study refines the typological definition of the Early Woodland ceramic series known as Deep Creek—one of the least understood pottery types in North Carolina. The result of this study contributes a better understanding of the range of tempers and surface treatments found in the Deep Creek series.

**Prehistoric Ceramics from the Barber Creek Site (31PT259),
Greenville, North Carolina**

**A Master's Thesis
for the
Department of Anthropology
East Carolina University**

**By
Joseph F. Roberts**

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PREHISTORIC CERAMICS FROM THE BARBER CREEK SITE (31PT259), GREENVILLE,
NORTH CAROLINA

by

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TABLE OF CONTENTS

List of Figures	vii
List of Tables	ix
Chapter 1: Introduction	1
Problem Statement	1
Thesis Overview	2
Chapter 2: Background	4
History of Research	4
Coastal Plain Prehistory during the Woodland Period	6
Early Woodland	6
Middle Woodland	7
Late Woodland	8
Barber Creek	9
Present Study	10
Chapter 3: Methodology	12
Ceramic Analysis	12
Attributes	12
Temper	12
Temper Size	12
Paste	13
Temper Abundance	13
Size Class	14
Sherd Weight	14
Sherd Thickness	14
Surface Treatment/Decoration	14

Vessel Portion	14
Other Variables	16
Typology	17
Chapter 4: Results	19
Pottery	19
Deep Creek Series	19
Deep Creek Cord-Marked	21
Deep Creek Fabric-Impressed	25
Deep Creek Net-Impressed	27
Deep Creek Plain	30
Deep Creek Simple-Stamped	31
Indeterminate Sand-Tempered Series	32
Indeterminate Sand-Tempered Cord-Marked	34
Indeterminate Sand-Tempered Fabric-Impressed	34
Indeterminate Sand-Tempered Incised	36
Indeterminate Sand-Tempered Net-Impressed	37
Indeterminate Sand-Tempered Plain	38
Residual Sand Tempered Sherds	39
Sand Tempered Cord-Marked	39
Sand Tempered Fabric-Impressed	41
Sand Tempered Net-Impressed	42
Sand Tempered Punctate	43
Hanover	45
Hanover I Cord-Marked	46
Hanover I Fabric-Impressed	47

Hanover I Plain	49
Hanover II Cord-Marked	50
Hanover II Fabric-Imprinted	51
Hanover II Plain	52
Hamp's Landing	53
Hamp's Landing Net-Imprinted	53
Summary	55
Deep Creek Phase Testing	55
Chapter 5: Conclusions	57
Temper and Surface Treatment Range	57
Deep Creek Surface Treatment Phases	59
Appendix A: Deep Creek Definition	62
Appendix B: Refit Distributions	63
Appendix C: Frequencies Compared	68
References Cited	69

LIST OF FIGURES

Figure 2.1: Site Setting	11
Figure 2.2: Trench Locations	11
Figure 3.1: Rim Shapes	15
Figure 3.2: Base Shapes	16
Figure 4.1: Deep Creek Cord-Marked Sherds	20
Figure 4.2: Deep Creek Cord-Marked Rims	23
Figure 4.3: Deep Creek Cord-Marked Interiors	24
Figure 4.4: Deep Creek Round Bases	25
Figure 4.5: Deep Creek Fabric-Imprinted Sherds	26
Figure 4.6: Deep Creek Fabric-Imprinted Rims	27
Figure 4.7: Deep Creek Net-Imprinted Sherds	28
Figure 4.8: Deep Creek Net-Imprinted Interior	29
Figure 4.9: Deep Creek Net-Imprinted Rims	30
Figure 4.10: Deep Creek Plain Sherds	30
Figure 4.11: Deep Creek Plain Rims	31
Figure 4.12: Deep Creek Simple-Stamped Sherds	31
Figure 4.13: Indeterminate Sand-Tempered Cord-Marked Sherds	34
Figure 4.14: Indeterminate Sand-Tempered Fabric-Imprinted Sherds	35
Figure 4.15: Indeterminate Sand-Tempered Fabric-Imprinted Rims	36
Figure 4.16: Indeterminate Sand-Tempered Incised Refit	36
Figure 4.17: Indeterminate Sand-Tempered Net-Imprinted Sherds	37

Figure 4.18: Indeterminate Sand-Tempered Net-Impressed Rim	37
Figure 4.19: Indeterminate Sand-Tempered Plain Sherds	38
Figure 4.20: Indeterminate Sand-Tempered Plain Rims	39
Figure 4.21: Sand-Tempered Cord-Marked Sherd	39
Figure 4.22: Sand-Tempered Cord-Marked Sherds	40
Figure 4.23: Sand-Tempered Fabric-Impressed Sherds	41
Figure 4.24: Sand-Tempered Net-Impressed Sherd	42
Figure 4.25: Sand-Tempered Net-Impressed Sherd	43
Figure 4.26: Sand-Tempered Punctate Sherd	44
Figure 4.27: Sand-Tempered Punctate Rim	44
Figure 4.28: Hanover I Cord-Marked Sherds	46
Figure 4.29: Hanover I Cord-Marked Rim	47
Figure 4.30: Hanover I Fabric-Impressed Sherds	48
Figure 4.31: Hanover I Fabric-Impressed Rims	48
Figure 4.32: Hanover I Plain Sherds	49
Figure 4.33: Hanover I Plain Rim	49
Figure 4.34: Hanover II Cord-Marked Base Refit	51
Figure 4.35: Hanover II Fabric-Impressed Sherds	52
Figure 4.36: Hanover II Plain Sherds	53
Figure 4.37: Hamp's Landing Net-Impressed Refit	54
Figure 4.38: Hamp's Landing Refit Interior	54

LIST OF TABLES

Table 3.1: Wentworth Scale	13
Table 3.2: Series Paste/Temper Descriptions	13
Table 3.3: Sieve Sized used for Size Classes	14
Table 3.4: Sherd Proveniences	16
Table 3.5: Sample of Surface Treatment Measurements used for Varieties	17
Table 4.1: Series/Phases compared by attributes	19
Table 4.2 Deep Creek Surface Treatment Frequencies Compared	21
Table 4.3: Indeterminate sand-tempered Surface Treatment Frequencies Compared	33
Table 4.4: Hanover I Surface Treatment Frequencies Compared	46
Table 4.5: Hanover II Surface Treatment Frequencies Compared	50
Table 4.6: Surface Treatment Frequencies by Level	56
Table 5.1: Deep Creek Gravel Sized Tempers by Surface Treatment	58
Table 5.2: Comparison of Deep Creek surface treatments between studies.	60
Table B.1: Refit Group Level Provenience	65
Table B.2: Group 2 Sherd Temper Size and Abundance	66
Table B.3: Group 6 Sherd Temper Size and Abundance	66
Table C.1: Deep Creek Surface Treatment Frequencies by Level	68

CHAPTER 1: INTRODUCTION

The culture-history of the Southeastern United States is based largely upon lithic and ceramic typologies. In North Carolina, sand-tempered ceramics mark the beginning of the Woodland Period which lasted from 1000BC-AD1650 (Ward and Davis 1999:210). David Phelps (1983) defined Deep Creek as the Early Woodland ceramic type for the northern Coastal Plain. However, a definitive study describing the range of variation of Deep Creek pottery from a single assemblage has yet to be completed (see Martin 2004:76). Refining the Early Woodland ceramic typology has been one of the goals of the on-going excavations by East Carolina University at a series of stratified sites along the Tar River near Greenville, North Carolina. This thesis is one product of that research, and it addresses the issue of Deep Creek ceramics.

Woodland peoples in the northern Coastal Plain occupied semi-sedentary villages and began cultivating plants of various species that otherwise supplemented a hunting and gathering diet (Ward and Davis 1999:3-4). Pottery is the most significant technological change developed during the Woodland Period. Archaeologists commonly use pottery to identify Woodland components in archaeological sites. While the tradition of pottery making is now known to slightly predate the temporal boundaries set for the Woodland Period, it remains an important indicator of Woodland occupations.

Problem Statement

Deep Creek Woodland ceramics remain the most poorly understood series in the northern Coastal Plain. Two important questions are addressed in this study. *First, what is the range of*

variation in temper and surface treatments in a Deep Creek assemblage? Phelps (1983:29-32) defined Deep Creek pottery as being tempered with coarse sands. In a follow-up analysis, Martin (2004:71-75) further clarified the paste in Deep Creek ceramics as being fine to medium-grained sand with occasional pebbles up to 2 mm in size. Moreover, following Phelps (1983:29-32), Martin (2004:71-75) also identified five types of surface treatments. Martin's study, however, was done on a relatively small assemblage, and it is uncertain if the entire range of variation in temper and surface treatments were present in his study. To date, an analysis of a Deep Creek component including a large sample of Deep Creek sherds has not been reported. With the classification of over 2,700 sherds from the Deep Creek component at the Barber Creek site, this thesis represents the first major analysis of a significant Deep Creek assemblage from North Carolina Coastal Plain.

Second, how does the frequency distribution of surface treatments compare to the three-part sequence proposed by Phelps? Phelps (1983: 29-31) proposed a three-phase sequence for identifying temporal changes within Deep Creek assemblages based on changes in surface treatment frequencies. This sequencing has only received limited testing (see Martin 2004:73). The frequency of surface treatments in the Barber Creek assemblage classified here are quantified and evaluated with respect to the surface treatment frequencies proposed by Phelps (1983). Deep Creek was posited to have three phases reflected in changing frequencies of cord-marked, fabric-impressed, net-impressed, plain, and simple-stamped types (Phelps 1983:20-31).

Thesis Overview

This thesis will present the results of analysis of 2,714 sherds recovered during the 2000 and 2002 field-seasons at Barber Creek. This work represents the first significant analysis of a

large Deep Creek assemblage from a single site. As such, it is an important step in refining our understanding of an Early Woodland ceramic type in the North Carolina Coastal Plain. The remaining portion of this thesis is organized as follows. Chapter 2 provides background information discussing the Woodland Period in North Carolina and an overview of the fieldwork done to date at Barber Creek (31PT259). A methodology section introducing attributes used in pottery analysis is found in Chapter 3. Chapter 4 discusses the range, frequencies, and distribution of the site's pottery in more detail. The formal type descriptions derived from this analysis will allow better inter-assemblage comparisons to other Early Woodland ceramic collections in the southeastern United States. Discussions of some issues raised by the results of this thesis follow in Chapter 5. The findings indicate Deep Creek sherds utilize medium-to-very coarse sand-tempering with occasionally larger elements. Deep Creek types include those enumerated in previous studies (Martin 2004, Phelps 1983). No phasing was accomplished in this study due to the nature of the sherds context. However, an overall picture of a Deep Creek assemblage with surface treatment frequencies has replaced assertions with hard data for future studies.

CHAPTER 2: BACKGROUND

History of Research

Over the past century there have been numerous surveys and excavations resulting in numerous typologies for the region. While not all are discussed here, a historical review of relevant works is presented.

In 1958, William Haag published the results of a survey he directed entitled *The Archaeology of Coastal North Carolina*. The tidewater region was viewed by him as “*terra incognita*” (Haag 1958:1) as it had experienced limited study. Utilizing temper types to classify sherds, he created pottery types for the region but cautioned testing would be needed to support the utility of the temper divisions (Haag 1958:65). Haag was of opinion that variation in pastes and temper was most likely a reflection of the regional geological makeup (Haag 1958:69-71). This study encompassed a wide area and his reluctance to create rigid divisions in pottery types without further evidence was well founded.

Stanley South (1976) conducted studies in the south coastal areas of North Carolina and suggested that geographic limits to certain types might constitute cultural regions. Thus, the Neuse River was seen as a border between the Northern and Southern Coastal Plains. The study defined Hanover as a sherd tempered series and Cape Fear as a sand tempered series (South 1976:16-19). These series were thought to be region-specific, but since then have been found in neighboring regions (Herbert 2003; Martin 2004; Block 2006).

Subsequent work by Thomas Loftfield (1976) and David Phelps (1983) attempted to define sand-tempered wares of the central and northern coastal plains, respectively. A trend of comparing and naming series based on apparently similar types from surrounding regions is common for Coastal Plain studies. Loftfield defined the sand-tempered series New River based on the surface treatments of cord-marking, fabric-impressing, and simple-stamping (Loftfield 1976:149). His New River added a plain type which essentially expanded the Lenoir series defined by the 1966 work of Crawford (1966:34). David Phelps (1983:29) described the Deep Creek series a few years later to describe sherds he found in North Carolina that were similar to the Stoney Creek series of Virginia.

Phelps investigated a number of sites in the northern coastal plain prior to 1983 (Phelps 1977, 1981). This work was done primarily as cultural resource assessments. With the data he gained from investigations at Barber Creek (31PT259), Parker (31ED29), and the Tillet site, (31DR35), he classified a series of sand-tempered sherds as Deep Creek (Phelps 1983). Subsequent work by Martin (2004) further refined this series.

With the plethora of series and types being described in the previous decades, recent attempts have been made to consolidate the region's typology through comparative analysis (Herbert 2003). The refinement of all typologies is expected by their creators and is an aim of this study. Herbert's work created a unified typology using previously defined types (Herbert 2003: 53). New excavations do not always reflect typologies created in the past (Herbert 2003: 106). Series which share temper types are thought to be related (i.e. Deep Creek and New River) and teasing out the evolution of series over time is another goal of current research. The addition of a definition of Deep Creek based on a large assemblage will help to revise the current typology.

Coastal Plain Prehistory during the Woodland

Early Woodland

The Early Woodland (1000 BC – AD 200) is characterized by the appearance of pottery and the establishment of villages (Ward and Davis 1999:3). Pottery is the hallmark of the Early Woodland in North Carolina and pottery has been classified into steatite-, sand-, and marl-tempered series. Deep Creek sand-tempered ceramics are characterized by several surface treatments including cord- marked, fabric-impressed, and net-impressed. Phelps (1983:18) noted that changes in surface type frequencies were suggestive of a three-phase sequence of the Early Woodland period, but this sequence remains largely untested (see Martin 2004). Dates associated with Deep Creek include a date from Lake Phelps of around 1000 BC (Herbert 2003:182, Table 5.1) and Little Cedar Island, 350 BC (Herbert 2003:191, Table 5.3). Hamp's Landing is a marl- or limestone-tempered series (with sand in the paste) first described by Thomas Hargrove in 1993. The presence of marl- and shell-tempering is often only recognized by voids in the paste. Recently the Oak Island series (South 1960 described as shell-tempered) was subsumed under Hamp's Landing because it was found to be marl-tempered (Mathis 1999). The series includes cord-marked, net-impressed, fabric-impressed, paddle-edge-stamped, simple-stamped, bundled-stick-punctate, smoothed-over-stamp, and scraped types. Hamp's Landing has associated dates from the Riegelwood site (31CD114) of around 3000 BC – 200 AD (Herbert 2003:182, Table 5.1). Overall, a number of pottery series attributed to the Early Woodland Period are known to have some amount of sand tempering.

Middle Woodland

The Middle Woodland (AD 200 – 800) sees changes in pottery styles reflecting increased regionalization (Ward and David 1999:4). Middle Woodland pottery includes sand-tempered traditions as well as the appearance of clay-tempered series. Sand-tempered and clay-tempered series are found in the Barber Creek assemblages and relevant series are described here.

Deptford is a compact-pasted, sand-tempered group which bears similarities to Deep Creek/New River sherds with plain, simple-stamped, cord-marked, fabric-impressed, incised and punctated types. Dates found in South Carolina posit the ware was produced around 200 BC – AD 500* (Anderson et al. 1982). Cape Fear is another sand-tempered group that has been used to describe a number of different paste/temper frequencies. Herbert (2003) has suggested lesser amounts of sand than Deep Creek/New River sherds with cord-marked, fabric-impressed, and stamped surface treatments. Block (2006:44) suggests Cape Fear types include cord-marked, fabric-impressed, net-impressed, plain, and incised. The addition of net-impressed, plain, and incised types is a wider range than Herbert includes with his dates of around 300 BC – AD 1400* (Herbert 2003:190-191, Table 5.3; 196-199, Table 5.4). This is interesting because the five treatments described by Block (2006) are the same Phelps (1983) enumerated for Mount Pleasant. A group of sherds at Barber Creek is sparsely sand-, granule-, and pebble-tempered with cord-marked, fabric-impressed, net-impressed, plain, and incised types. This variety of surface treatments on sparsely sand tempered sherds with a compact paste and somewhat smooth texture are represented within this project's assemblage as "Indeterminate sand-tempered."

* Dates extend beyond the range of their respective periods but are placed in the period when most commonly found.

Other Middle Woodland series include Hanover, a widely found series with clay tempering. A discussion of the relationship of sherd-, grog-, and clay-tempered sherds can be found in Herbert (2003:41-42). The surface treatments for Hanover include fabric-impressed, cord-marked, stamped, net-impressed, and plain types. There are also two phases described by Herbert (2003) and Cable (Cable et al. 1998). Hanover I phase sherds contain a sandier paste than the Hanover II phase. Dates associated with these wares are between AD 100-1675* (Herbert 2003:190-191, Table 5.3; 195-199, Table 5.4). The Yadkin series is considered to have crushed quartz tempering with cord-marked, fabric-impressed and stamped types (Coe 1964; Coe 1995). This designation may be similar to the Onslow series sherds described by Loftfield in 1976. Dates for the Onslow series are around AD 1000 (Herbert 2003:197-198, Table 5.4) while Yadkin dates to around AD 100 (Herbert 2003:190, Table 5.3). The Mockley series is a shell-tempered group which marks this material's first use as a temper in the region. No shell-tempered series are present in the Barber Creek assemblage.

Late Woodland

This period (AD 800 – 1650) sees a greater reliance on agriculture along with beans and corn being staple crops (Ward and Davis 1999:4, 210). Late Woodland pottery utilizes shell-tempering more frequently than Middle Woodland. The Colington series is shell-tempered series recovered around the sounds and barrier islands of the Coastal Plain. The other major temper type utilizes quartz pebbles as seen in the Cashie series. Cashie pottery is found in the inland Coastal Plain where pebbles were probably more available than shell. The differences between Colington and Cashie pottery have also been attributed to possible linguistic and cultural group differences found around the time of contact. Phelps (1983) suggested that different pottery

* Dates extend beyond the range of their respective periods but are placed when most commonly found.

series distributions might be a reflection of different places inhabited by Siouan and Algonquian speaking populations.

Barber Creek

Recent work by East Carolina University (ECU) summer field schools run by Dr. R. Daniel has uncovered a significant Early Woodland component at the Barber Creek site (Figure 2.1) along the Tar River (Daniel 2002; Daniel et al. 2008; Martin 2004; McFadden 2009; Moore 2009; Potts 2004; Seramur et al. 2003). Barber Creek (31PT259) was discovered by David Phelps in 1976 while conducting a CRM project on the proposed site of the Greenville Utilities Commission Waste-water Treatment Plant (Phelps 1977). In 1977, he recommended that Barber Creek be added to the National Register of Historic Places. Limited testing indicated the presence of a 1-m-thick deposit of stratified archaeological remains including Early Archaic through Early Woodland materials. Subsequently, ECU returned to the site in 2000. Since then, several summers of research have focused on understanding aspects of the region's prehistory including its cultural chronology, typology, and geo-archaeology (Daniel 2002; Daniel et al. 2008; Martin 2004; McFadden 2009; Moore 2009). To date, some of the data and results obtained through the analysis of recovered Barber Creek materials have been reported in several publications, including student theses (Daniel 2002; Martin 2004; McFadden 2009; Moore 2009; Potts 2004; Seramur et al. 2003). These are highlighted below.

Using shovel test data, Tara Potts (2004) investigated the stone working activities that occurred during the Archaic and Woodland periods. She also examined broad-scale, spatial patterning at the site, finding some spatial separation between the two components at the site (Potts 2004, Daniel et al. 2008). Additional theses reporting lithic and ceramic artifacts from the most recent excavations are forthcoming (Daniel 2011, personal communication).

Tracy Martin (2004) attempted to refine the definition of Deep Creek pottery by looking at extant collections from the Parker and Barber Creek sites excavated in the 1970s (see appendix A). His work describes the ranges and frequency of Deep Creek types, as well as the range of temper size and abundance in the paste. His results refined the three-phase sequence proposed for Deep Creek (Martin 2004:71). His study also considered the possibility of subsuming the Deep Creek Series into other series like Badin, Vincent, and especially Stoney Creek, but he suggested they were not close enough in definition to warrant such a move (Martin 2004:75).

Chris Moore (2009) conducted an extensive archaeological survey along of a portion of the Tar River recording 19 sites several of which included stratified remains similar to Barber Creek. His geoarchaeological study supported the notion that aeolian dunes along the Tar were intermittently occupied throughout the early to middle Holocene. Additional geoarchaeological work at Barber Creek by Paulette McFadden (2009) further clarified questions regarding site formation and the chronological sequence present at the site.

Present Study

The data for this author's study comes from trench excavations conducted in the summer field schools of 2000 and 2002. Excavations were conducted in contiguous two-meter squares formed into a series of trenches totaling 40m² (Figure 2.2). Excavations were carried out in 10-cm arbitrary levels and all fill was screened through 1/8 inch mesh hardware cloth. A collection of over 2700 sherds provides a large enough assemblage to adequately address the questions explored in this thesis. The methods of analysis are discussed in the next chapter.



Figure 2.1 Site Setting

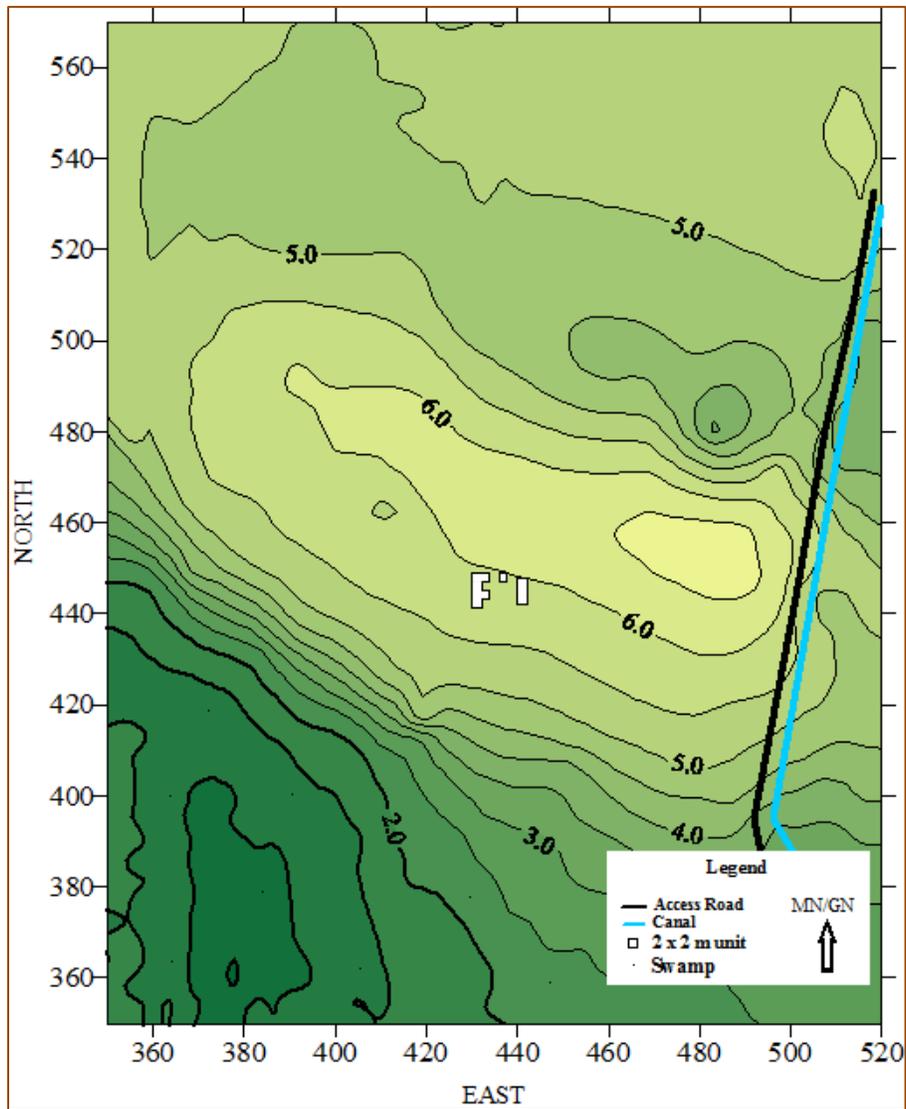


Figure 2.2 Trench Locations: on the ridge of the Barber Creek Site

CHAPTER 3: METHODOLOGY

This chapter presents the methods used in the ceramic analysis and gives contextual information.

Ceramic Analysis

The pottery assemblage from Barber Creek consisted of 2731 sherds. The pottery was sorted into groups based on several attributes which are defined below.

Attributes

Temper. Temper type is the substances added to the clay to aid in firing (Rice 1987:406-408). Three primary tempers were identified: natural quartz sands, previously fired clay lumps, and marl or limestone. With the exception of marl/limestone, all of the tempers were observed directly in the paste. Since marl and limestone are often dissolved as a result of the firing process, they cannot be directly observed. Instead, their use as temper was inferred based upon the characteristic voids left in the pottery. The void shapes are rounded and vary in size from medium to pebble sizes on the Wentworth Scale (Table 3.1). Temper in tandem with paste descriptions were the primary attributes used to identify pottery series in this assemblage. Occasionally, a secondary temper was recorded. For example, secondary tempers include quartz particles in Hanover Series and angular crushed rock in Deep Creek Series sherds.

Temper Size. The Wentworth Scale was used to determine particle size for tempers (Table 3.1). In this work, fine sand is not a temper size but rather a trait of the paste. Fine sand

is considered too small to have been added intentionally as a temper (Hebert 2003:28). Fine sand is present in all pastes which reflect its natural occurrence in local clays. This is the reason it is not considered to be a temper (Herbert 2003:41).

Table 3.1 Wentworth Scale

Wentworth Size Class	Size in Millimeters
Fine (Sand)	0.125 - 0.25
Medium (Sand)	0.25 - 0.50
Coarse (Sand)	0.50 - 1.00
Very Coarse (Sand)	1.00 - 2.00
Granule (Gravel)	2.00 - 4.00
Pebble (Gravel)	4.00 - 64.00

Paste. Paste refers to the clay mixture used to form the body of the vessel. Paste characteristics were listed in a notes category for each sherd. Eventually, a paste was determined for each ceramic group once sorting was complete. Three basic pastes were noticed: fine compact clay, sandy compact clay, and a friable-sandy clay. Paste/Temper combinations were used to define series for this assemblage (Table 3.2).

Table 3.2 Series Paste/Temper Descriptions

Paste	Temper	Series
Fine Sandy Slightly Friable to Compact Clay	Medium to Pebble Sized Quartzes	Deep Creek
Fine Compact Clay	Medium to Pebble Sized Quartzes	Indeterminate sand-tempered
Fine Sandy Compact Clay	Medium to Pebble Sized Prefired Clay Lumps	Hanover I
Fine Compact Clay	Medium to Pebble Sized Prefired Clay Lumps	Hanover II
Fine Sandy Compact Clay	Medium to Pebble Sized Marl/Limestone	Hamp's Landing

Temper Abundance. Temper abundance was estimated based on the proportion of temper found in the paste clay (adapted from Terry and Chilingar 1955). Temper abundances are described as being sparse (0 – 10%), average (10 – 20%), or dense (\geq 20%).

Size Class. Sherds were given a size class based on USA Standard Testing Sieves (Table 3.3). Only sherds larger than 12.5 mm were chosen for analysis. This resulted in 1510 sherds that were suitable for analysis.

Table 3.3 Sieve Sizes used for Size Classes

Size Class 1	Size Class 2	Size Class 3	Size Class 4
25.0 mm (1.0 in.)	12.5 mm (.5 in.)	6.3 mm (1/4 in.)	2.80 mm (.111 in.)

Sherd Weight. Each sherd was weighed to the nearest hundredth of a gram. Only those belonging to size classes 1 and 2 were analyzed beyond temper, count, and weight.

Sherd Thickness. Sherd thickness was measured in centimeters in this category.

Surface Treatment/Decoration. Exterior surfaces were described in terms of surface treatment or decorations commonly recognized for coastal plain pottery. Surface treatment refers to a pattern imprinted on the vessel exterior using the paddle and anvil technique (Fewkes 1941). Done to strengthen the vessel's integrity before firing, the application of the surface treatment was accomplished using paddles wrapped with materials like cords, fabrics, or nets. Decoration refers to surface enhancements which do not help to strengthen the vessel walls such as incising or punctations (Rice 1983:144-147).

Vessel Portion. Vessel portions including base, body, or rim were recorded. Body sherds best show surface treatments, which are considered most series diagnostic. Rim and base shapes can indicate a vessel's shape. Rim shapes (Figure 3.1), surface treatments, and decorations are listed with their respective types, as are base shapes and surface treatments when found. Rim treatments are shown from top-down views to better allow visual comparison. Bases in this assemblage are either conical or rounded in shape. All conical bases found in this assemblage

were found to be clay-tempered (Hanover Series) while rounded bases were found to be sand-tempered (Deep Creek Series). A comparison of these two base types is shown in Figure 3.2. Bases were placed upside-down for the photograph. While no complete vessels were present, rim and base shapes suggest the presence of tall bowls (many with restricted mouths) with conical and sub-conical (rounded) bases.

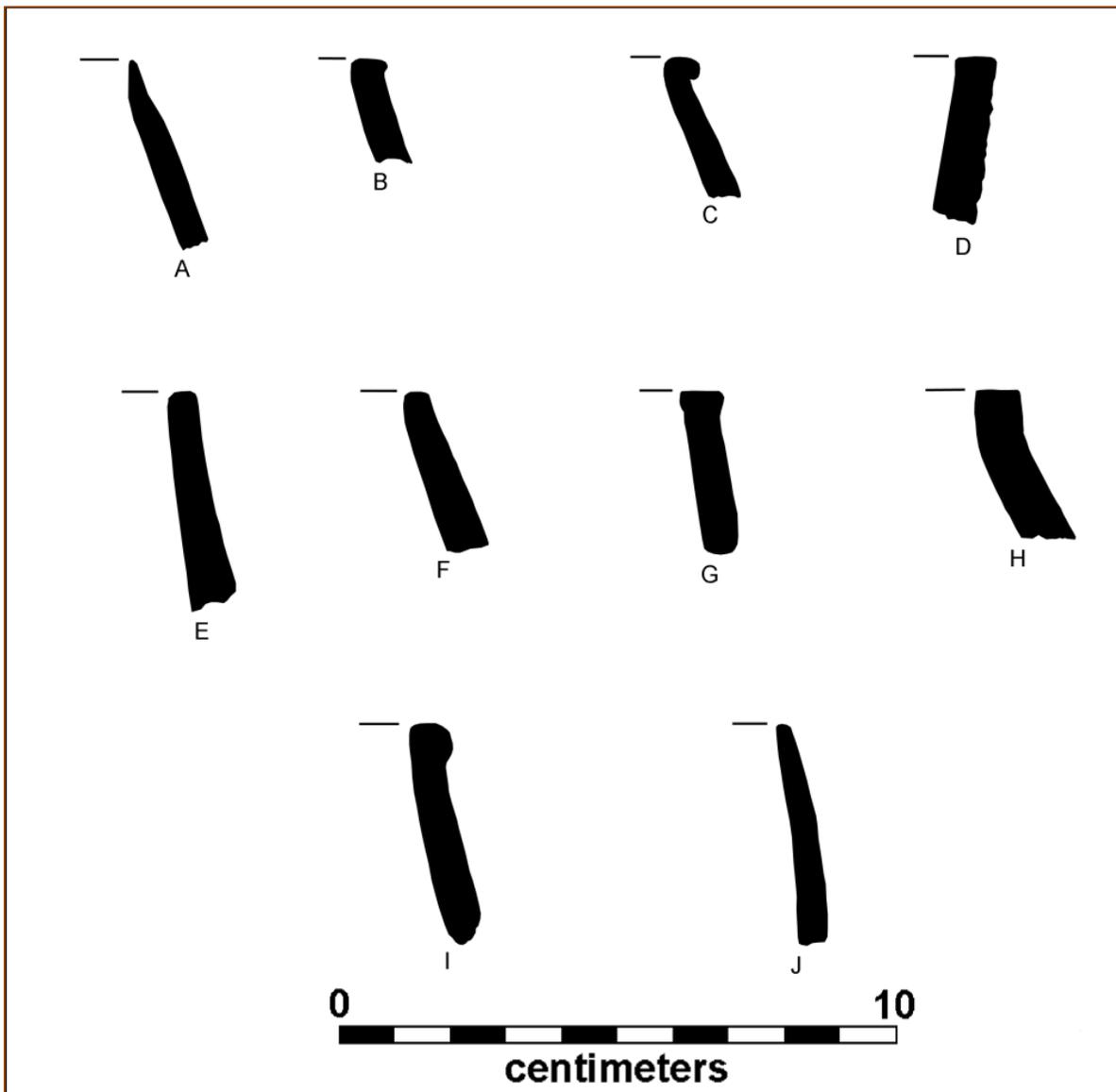


Figure 3.1 Rim Shapes: A–D Indeterminate sand-tempered, E–H Deep Creek, I–J Hanover. Lip forms include rounded, flattened, and folded. Vessels are inferred to be straight sided (D) and restricted bowls.



Figure 3.2 Base Shapes present in the assemblage, conical (A) and rounded (B).

Other Variables

Several other recorded variables involve sherd provenience information. Provenience data cells included unit, level, and corresponding field specimen numbers. Sherd counts for the types of proveniences are shown (Table 3.4).

Table 3.4 Sherd Proveniences

Context	Count	Percentage
Level Excavation	1454	96.29%
Level Cleaning	20	1.32%
Profile Cleaning	32	2.12%
Features	4	0.27%
Total	1510	100%

Additional categories were conducted on all sherds belonging to size class 1 and 2. These measurements include temper size, sherd thickness, and surface treatment measurements.

Temper size and sherd thickness are given as ranges. Surface treatments also have differential spacing patterns (i.e. cord width, mesh spacing) these variables could reflect different varieties over time. Varieties were formed based on surface treatment dimensions (Table 3.5).

Table 3.5 Sample of Surface Treatment Measurements used for Varieties.

BC Variety Label	Dimension	Division	Corresponding Variety
SOK, simple-stamped	2 – 5 mm	land > 2 mm	broad land simple-stamped
None	N/A	land < 2 mm	narrow land simple-stamped
SOR, net-impressed	0.8 – 1 cm	space >5 mm	open weave net-impressed
DCN, net-impressed	4 mm	space <5 mm	closed weave net-impressed
HAB, fabric-impressed	1 – 1.5 mm	weft diameter 1 – 2 mm	medium fabric-impression
HAD, fabric-impressed	0.5 – 1 mm	weft diameter < 1 mm	fine fabric-impression
HAG, fabric-impressed	1 – 2 mm	> 1 mm cordage warp	flexible fabric-impression
DCF, cord-marked	crossing	perpendicular orientation	N/A
SEA, cord-marked	crossing	oblique orientation	N/A
DCA, cord-marked	none	parallel orientation	N/A

Typology

The assemblage total included 2731 sherds (13,501.69 g) of which 1510 (55%) are size class one or two. The typology was constructed using the type-variety system, a hierarchical classification system often applied to ceramics (Smith, Willey, and Gifford: 1960; Gifford: 1960). The system allows further varieties to be added in future and easy comparison with neighboring regions. Archaeologists in Central America and the American Southwest used the system prior to the southeastern United States. Within this system the smallest unit of analysis should be the variety, though often only types are described until more comparisons are available for varieties (Herbert 2003:38). In this study varieties were only included if there was a clearly different surface treatment (Rice 1987:282-283).

The types are listed below are subsumed under their series or phase name (Chapter 4).

The Hanover series is present in both Hanover I and II phases. Descriptions of types were

compared to the North Carolina Coastal Pottery attribute code (Herbert 2003: Appendix A) and correlated when possible. Varieties can be found in the code, and surface treatments or decorations can be compared but not always correlated. The inclusion of variety discussions is primarily for reporting purposes and this study does not attempt to define new varieties. Series, types, and varieties not defined in other reports are described with pertinent features of the sherds that belong to each group. Here, the name Indeterminate sand-tempered is given to a sand-and-grit tempered series whose relationship to existing sand-tempered pottery—including Cape Fear, Deep Creek, and Mount Pleasant—is debatable.

CHAPTER 4: RESULTS

This chapter presents the analysis of the 1510 sherds fitting the analysis criteria outlined in Chapter 3. The typology is based on the conventional type for the Coastal region (Herbert 2003:38).

Pottery

Of the 2731 sherds in the assemblage only 1334 (49%) were classifiable as to series (Table 4.1), while another 176 (6%) were indeterminate. The remaining 1221 sherds (45%) were smaller than size class 2 and therefore not analyzed beyond temper and weight. The majority of sherds ($n=1454$, 96%) were recovered from level excavation (refer to Table 3.4). Four defined series are represented in the pottery assemblage—Deep Creek, Indeterminate sand-tempered, Hanover, and Hamp’s Landing—representing Early and Middle Woodland occupations (Hargrove 1993; Hargrove and Eastman 1997; Herbert and Mathis 1996; Mathis 1999; Herbert 2003; Loftfield 1976; Martin 2004; Phelps 1983; South 1960; South 1976).

Table 4.1 Series/Phases compared by attributes

Series	Count(n)	Count (%)	Weight (g)	Weight (%)
Deep Creek	936	62%	8652.35	70%
Indeterminate sand-tempered	132	9%	1095.76	9%
Hanover I	132	9%	920.80	8%
Hanover II	132	9%	825.36	7%
Hamp’s Landing	2	>1%	17.64g	1%

Deep Creek Series

The Deep Creek series is the largest group of sherds in the assemblage ($n=936$, 62%), and it reflects a substantial Early Woodland component at the site. Deep Creek surface

treatments include cord-marked, fabric-impressed, net-impressed, plain, and simple-stamped. Sherds are tempered with sand and may also contain rounded or crushed (angular) quartz temper with incidental quantities of mica, shell, or limonite concretions. The presence of the limonite is not thought to be an intentionally added substance but may aid in firing (Daniel 1999:113). The size of limonite concretions are variable, but they are larger in the Deep Creek Series (medium to pebble sized) than in the Indeterminate sand-tempered Series (fine to coarse). Temper size varies from medium-to-pebble sized quartzes in a sandy, sometimes friable, clay paste. A majority of the sherds (n=592, 63%) exhibit medium to very coarse sand particles. Minorities of smaller (medium, or medium – coarse sand, n=124, 13%) and larger particles (medium – granule or medium – pebble sized temper elements, n=220, 24%) were recorded as well. Temper abundance ranges from sparse to dense (1-40%), but has a majority (n=574, 61%) with 10 – 20% abundance. Thus, Deep Creek's temper can be described as medium to very coarse sand occupying 10 – 20% of the paste. Since temper abundance varies from sparse to dense in this category, temper abundance is not particularly useful in defining Deep Creek.

The range of tempers observed in the Deep Creek sherds from Barber Creek is similar to Phelps' (1983) and Martin's (2004) definitions (Phelps 1983:27-31; Martin 2004:113). It also appears to match the description by Loftfield (1976) for the New River series, having coarse sand in high proportions and, in lesser amounts, granule and pebble-sized particles (Loftfield 1976). Herbert suggested that Phelps' (1981a, 1983) Deep Creek and Loftfield's (1976) New River are almost interchangeable but uses the latter because it was published first (Herbert 2003:183). However the name Deep Creek is reserved in this study because it is reported across state lines as a sand-tempered series dating to the Early Woodland.

Included in the Deep Creek series was a group of crushed quartz tempered sherds (n=30). Temper particle sizes vary from medium to pebble-sized crushed quartz in a sandy clay paste. These sherds may be related to the Yadkin series described by Coe (1964) or Onslow series by Loftfield (1976). Some might identify quartz temper as a separate series but including these sherds as Deep Creek seems to be a more parsimonious interpretation given shared sandy quality of their paste and like surface treatments.

Five Deep Creek series types were classified in the assemblage for this series: Deep Creek Cord-Marked, Deep Creek Fabric-Imprinted, Deep Creek Net-Imprinted, Deep Creek Plain, and Deep Creek Simple-Stamped (Table 4.2).

Table 4.2 *Deep Creek* surface treatments frequencies compared.

Surface Treatment	Count (<i>n</i>)	Count (%)	Weight (g)	Weight (%)
Cord-Marked	473	51	5009	58
Fabric-Imprinted	48	5	385	5
Net-Imprinted	354	38	2849	33
Plain	27	3	94	1
Simple-Stamped	6	1	36	<1
Unknown (Bases)	10	1	275	3

Deep Creek Cord-Marked. Cord-marking is evident on 473 sherds (51%) making it the most common of the series. Cord widths vary between 0.5 – 2 mm with 1 - 4 mm spacing. The depths of surface impressions range between 0.5 – 3 mm (1.5 mm average). Twist direction was not analyzed because it is not always able to show temporal patterning (Herbert 2003:46).

Potentially there are two varieties of cord-marking, parallel and perpendicular. Some specimens (*n*=99, 21%), however, exhibit both parallel and perpendicular marking on the same sherd (Figure 4.1: D – H). In this study, both parallel and perpendicular surface treatments were observed. However, some sherd refits contained both parallel and perpendicular sherds.

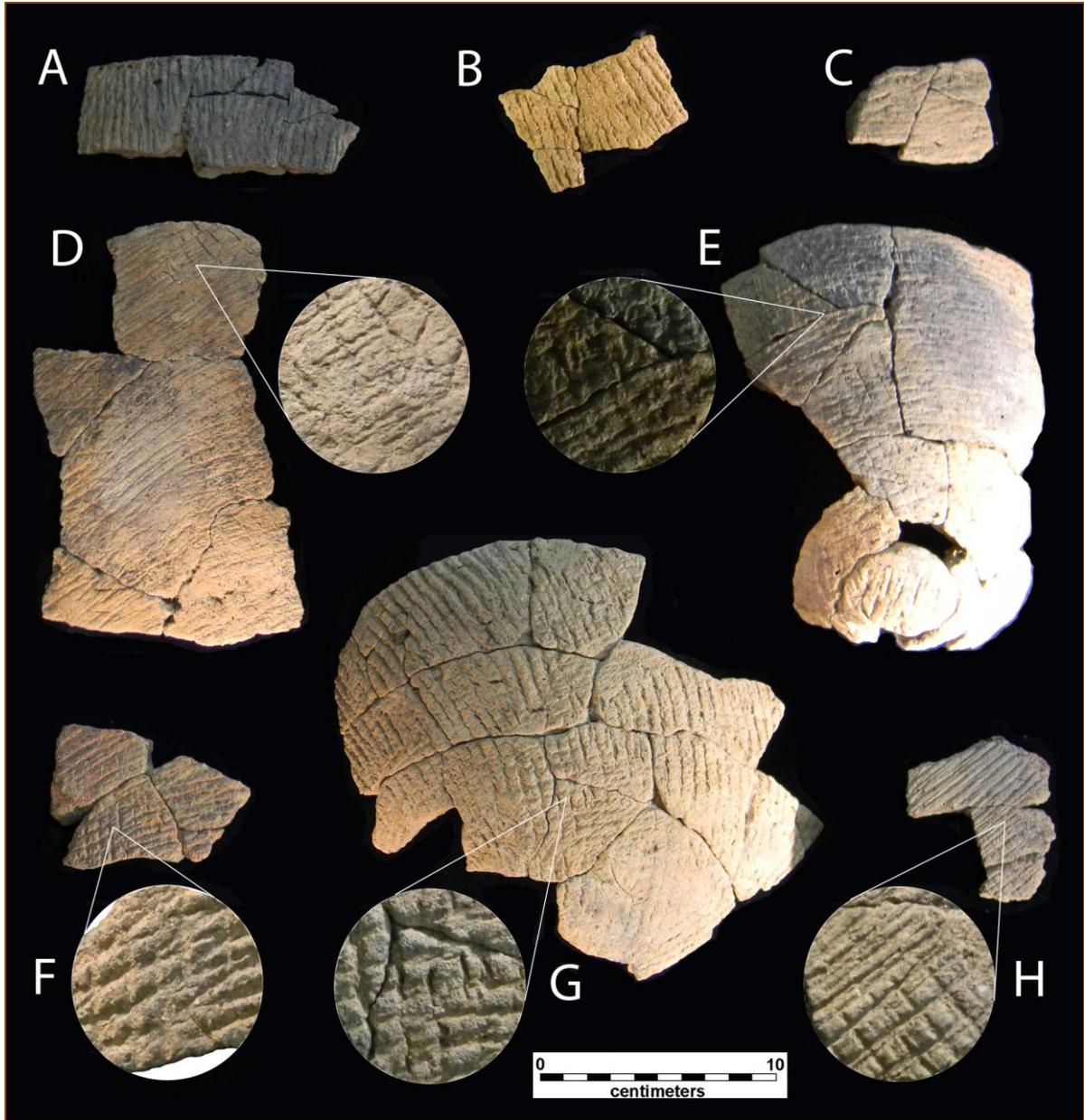


Figure 4.1 Deep Creek Cord-Marked Sherds: rim refit (A), worn-away (B).

One implication of such an occurrence is that parallel, perpendicular, and oblique markings may simply be elements of one variety (see Herbert 2003:45). That said, varied cord widths and spacing may still suggest a change in the type over time.

The body was not the only surface modified during a vessel's fabrication. Rim sherds also exhibit a variety of surface treatments or decoration. Some rim surface treatments end within a few millimeters of the rim exterior while other surface treatments extend over the entire lip. Figure 4.1 (A) illustrates an example of surface treatment ending short of the rim.

Rim treatments for Deep Creek Cord-Marked vessels are applied to rounded, flattened, or folded lip shapes (Figure 4.2). There are eight types of indentions applied to rim surfaces. Indentions are applied by impressing an object onto the interior rim, exterior rim or the lip of the rim or combinations thereof. The level of consistency in rim types across distinct series seemed to support series divisions made for this assemblage.



Figure 4.2 Deep Creek Cord-Marked Rims: rounded rims (A, B, and D), flattened rims (C and E). Example A is a notched rim of alternating indentions applied to the exterior and interior lip. Parallel notching at perpendicular and oblique angles to the vessel rim edge are common (C, perpendicular and oblique; E oblique). Simple (plain treatment) rims are also present (B and D).

Some cord-marked sherds had markings or surface treatments on their interior surface. Work by Adam Marshall (1999) suggested interior surface treatments could be used to distinguish between Colington and Cashie series and that recording such treatments could lead to future comparisons (Marshall 1999:87). While no other series was observed with interior surface treatments those noticed within the Deep Creek series are presented for future considerations. Figure 4.3 shows these miscellaneous features on four separate refits.

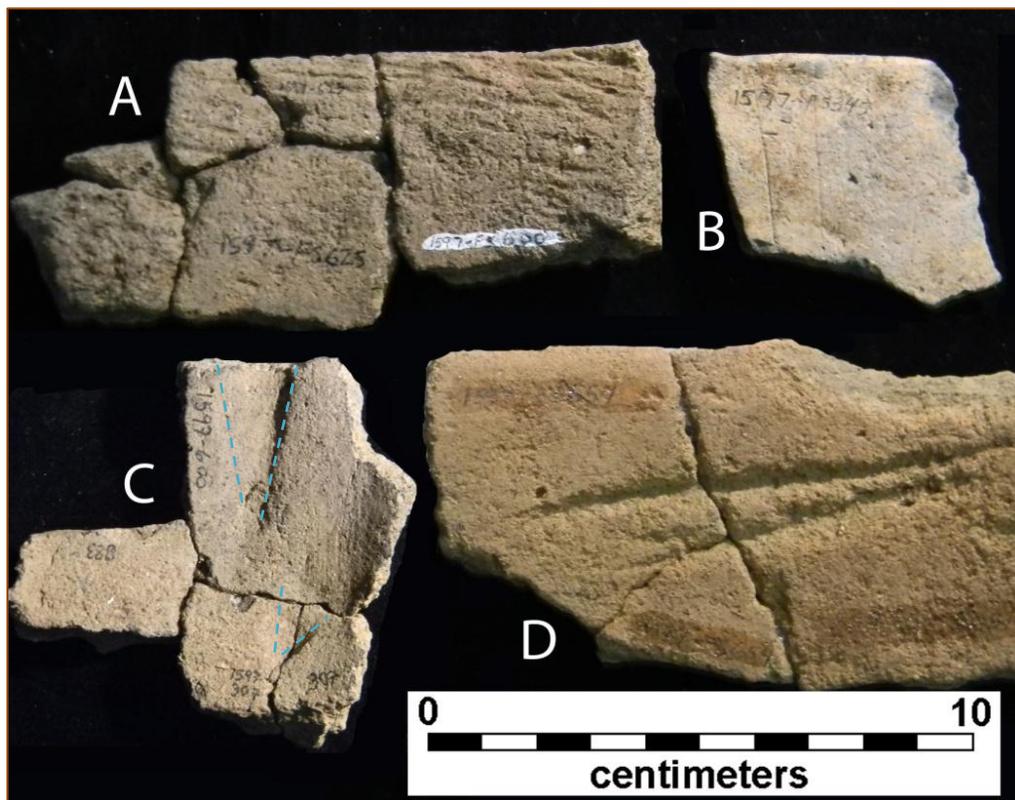


Figure 4.3 Deep Creek Cord-Marked Interiors: showing markings and depressions. A large group of sherds (A) belonging to a cord-marked rim refit (also in Figure 4.1: A) has cord-marking extending down the interior vessel wall for 3 – 4 cm. This is possibly caused while shaping the rim shape to form a restricted bowl. Four refit body-sherds (C) had two spade shaped indentations (highlighted by the blue dashed-lines). The indentations were caused while reorienting the vessel wall. A sherd with a simple rim (B) and a refit of sherds with a flattened rim (D) have scratches which may have been caused by trowelling during excavation.

Rounded bases were found in the assemblage and one was part of a cord-marked refit of sherds. Bases ($n=10$) for the Deep Creek Series are all rounded (Figure 4.4). Another round base was the only one able to be connected to show its shape and relationship to the vessel wall (see Figures 4.1:E and 3.2:B). Base sherds which were unable to be ascribed a surface treatment numbered 10 (1%).

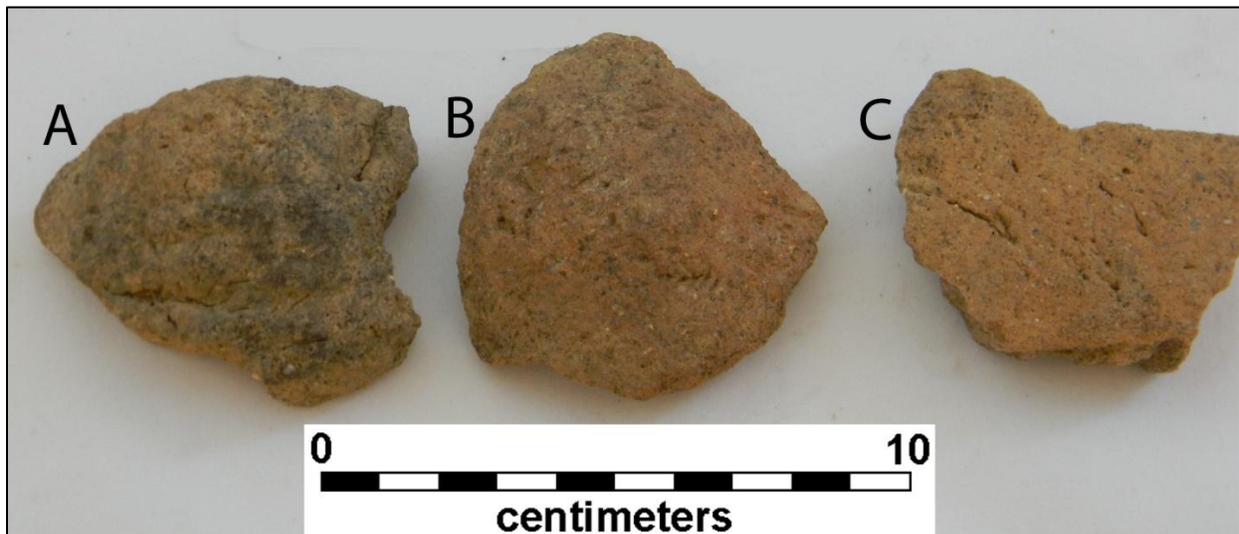


Figure 4.4 Deep Creek Round Bases: No surface treatment detectable. Coils are somewhat visible in one example (A).

Deep Creek Fabric-Impressed. Fabric-impressing is evident on 48 sherds (5%). Two varieties for Deep Creek Fabric-Impressed sherds include medium and fine weaves. Similar fabric-impressions are seen in the Hanover I series sherds from Barber Creek. Further, these varieties were noticeably more frequent tempered with granule and pebbles ($n=26$, 54%) than other surface treatments combined ($n=158$, 17%). The presence of larger quartz particles as temper in fabric-impressed sherds may reflect Phelps' (1983) assertion that *Deep Creek's* Phase III set the stage for the following Mount Pleasant phase with increased popularity of fabric-impressing.

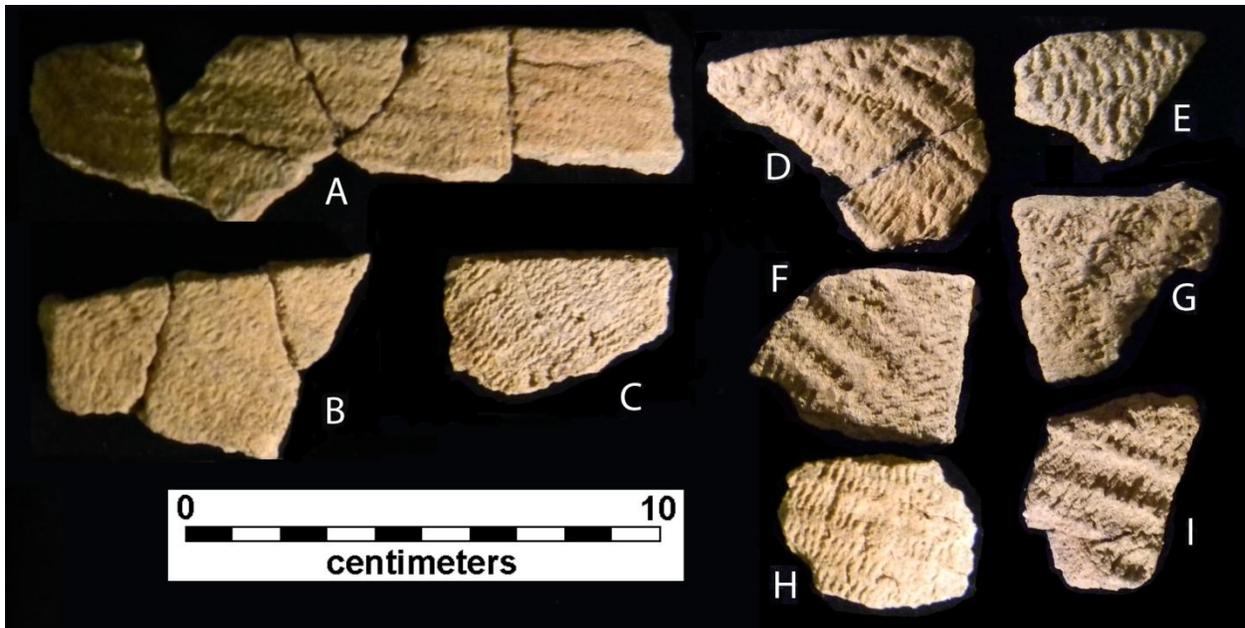


Figure 4.5 Deep Creek Fabric-Imprinted Sherds: A medium weft-faced (1–2 mm) fabric-impression is the majority ($n=25$, 52%) of the type (Figure 4.5: D – I). The other variety ($n=23$, 48%) is a fine weft-faced (< 1mm) fabric-impression (A – C).

Three lip forms for Deep Creek Fabric-Imprinted rim-sherds include rounded (simple), flattened, and folded (i.e. the topmost part of the vessel is folded outward over the vessel exterior) (Figure 4.6). It should be noted that the folded rim (Figure 4.5:D; Figure 4.6:C) is similar to Hanover Fabric-Imprinted rims since both have the fabric-impression extending over the lip of the rim. The folded rim also bears a strong resemblance to a Mount Pleasant Fabric-Imprinted rim seen in Phelps1983 (Phelps 1983:30, e). Another rim which has a medium-weave impression is a simple rim (Figure 4.5: E; Figure 4.6: A). A fine-weave rim type (Figure 4.5:A; Figure 4.6:B) includes a refit of 6 sherds. This group has a flattened lip, which narrows inward slightly from the interior of the vessel. A long incision is observable at one end of the refit Figure 4.5 (A) a few millimeters below the rim exterior.

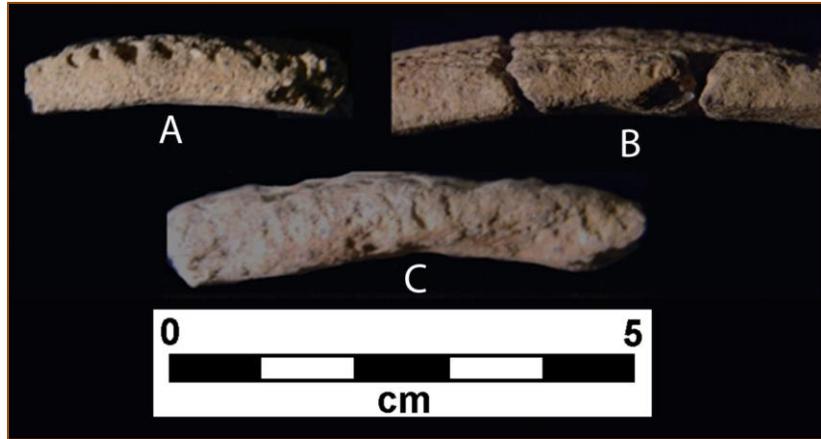


Figure 4.6 Deep Creek Fabric-Imprinted Rims: Simple rim (A), flattened rim (B), fabric over-impression (C).

Many of the Deep Creek Fabric-Imprinted sherds also resemble examples of Mount Pleasant sherds from the Bandon site (31Co1) (Herbert 2003 Figures 4.16 – 4.18). Despite these similarities and occurrences of pebble and granule tempering, grit tempering occurs less frequently in this series than that of the Indeterminate sand-tempered series. In other words, Indeterminate sand-tempered should be the most likely series to contain Mount Pleasant types.

Deep Creek Net-Imprinted. Net-impressing is evident on 354 sherds (38%). This is the highest percentage of net-impressing of any series in the assemblage. Net-impressed sherds can be measured using knot sizes and their spacing, which results in the overall mesh size. A division of sherds based on knot spacing such as > 5 mm (open weave) and < 5 mm (closed weave) has been used in other reports (Herbert 2003:45). However, knot spacing was found to vary even on a single sherd (Figure 4.7) within the Barber Creek assemblage, which had spacing between 4 – 7 mm. This is not simply due to over-stamping (i.e. multiple impressions overlapping in the same area) which can also occur. Instead, an effort was made to group sherds based on mesh shapes of either a consistently squared or a rectangular (elongated) shaped mesh. Based on this division there are 71 sherds (20%) with knots of 1 – 3 mm wide in size and a more

rectangular mesh. One sherd exhibits a portion of a mend hole evident as a half circle preserved along a break. A more regular and more squared mesh example had knot sizes between 0.5 – 1.5 mm and was by far more numerous ($n=253$, 72%).

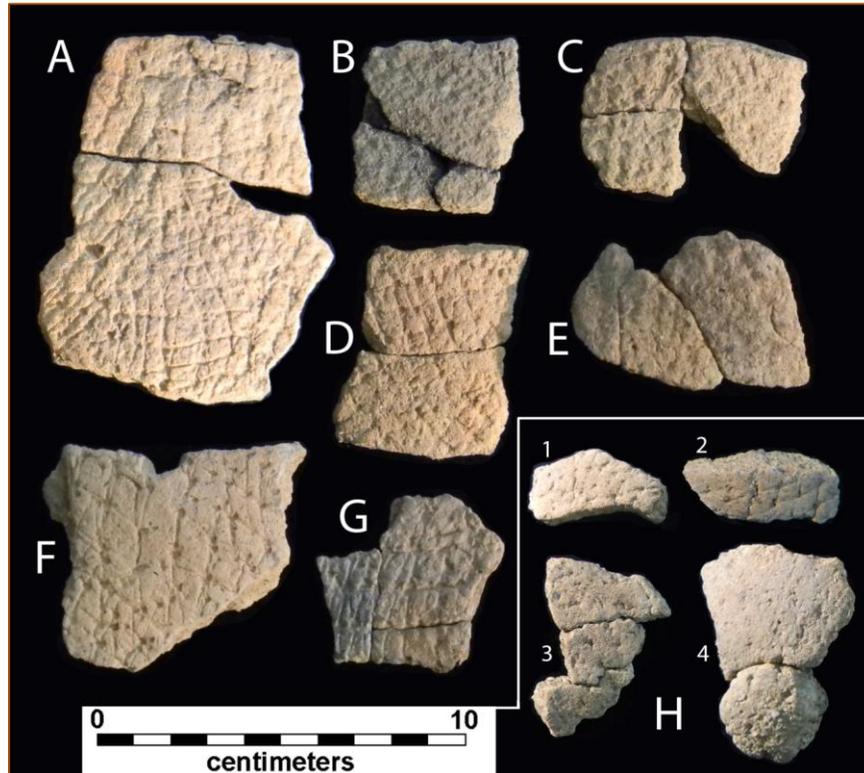


Figure 4.7 Deep Creek Net-Impressed Sherds: Rectangular meshes (F and G), sherd with mend hole (F), squared mesh (A – E and H 1–4).

The sherd examples in Figure 4.7 (H) contained angular quartz temper as well as sand and a surface treatment with varying degrees of wear. These sherds all belong to a set that has a blackened interior (Figure 4.8) and may be part of a rounded base (Figure 4.7:H4.) This use wear could explain the poor preservation of the mesh impressions on many in the sample. Finally, a group of sherds ($n=30$, 9%) had net-impressing elements but was indeterminate because a mesh shape was not noticeable (not shown).

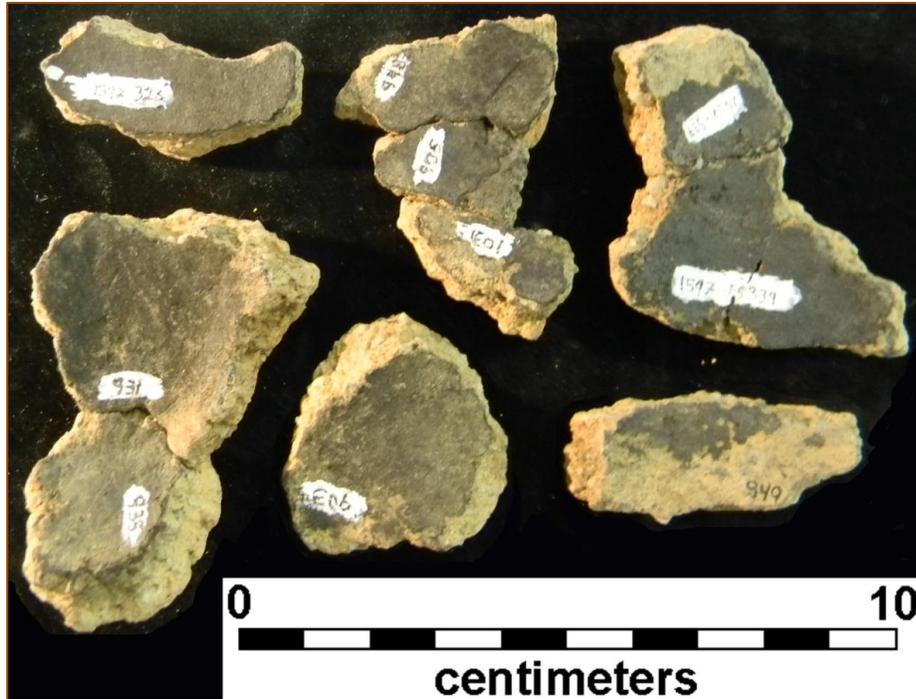


Figure 4.8 Deep Creek Net-Impressed Interior: with blackened surface.

A group of sherds with net-impressed exteriors had a blackened interior surface. The recording of the blackened surface was made not just because it is an obvious feature but because sherds with soot have been used for radiocarbon studies (Herbert 2003:144). However, it was not clear whether this was soot or some other substance (it tends to flake and does not penetrate the sherds interior surfaces). Found only on the interior of the vessel, this solidly black residue may not have extended to the rim but may be indicative of whatever this vessel was used to heat or hold.

Deep Creek Net-Impressed rim treatments are all rounded lip formed rims with rounded or rectangular notching (Figure 4.9). Wide rounded notches were found on the lip, interior rim alone and alternating between the interior and exterior rim.

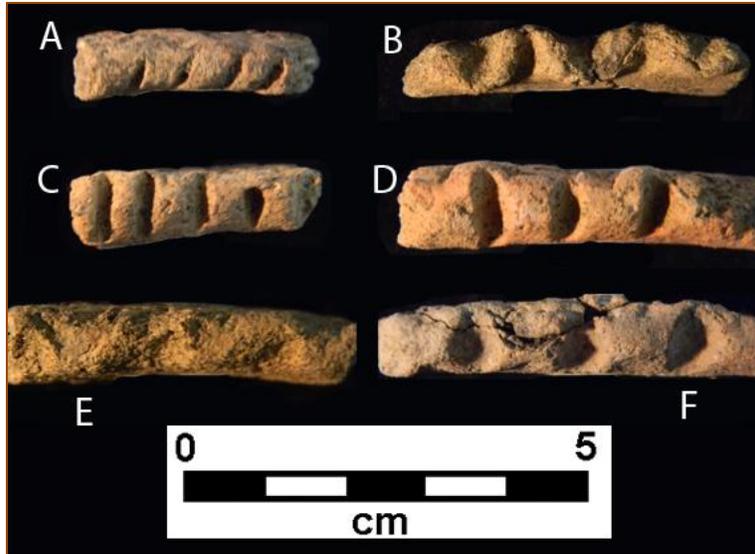


Figure 4.9 Deep Creek Net-Impressed Rims: Rim interior notching (A), lip notching (C–D), rounded notches on interior rim (E–F), and alternating on interior and exterior rim (B).

Deep Creek Plain. There are 27 sherds (3%) with a plain surface treatment for the Deep Creek Series. In Figure 4.10 two rim refits are shown along with a small body refit.

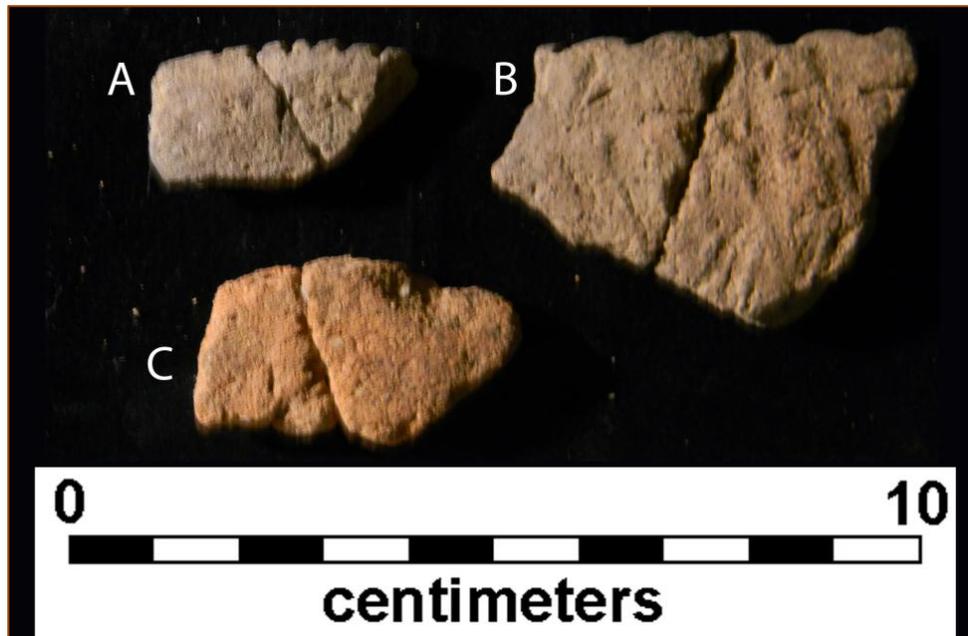


Figure 4.10 Deep Creek Plain Sherds: Rim refits (A–B), body refit (C).

Deep Creek Plain rims are rounded and their rim treatments are notched just like those described in Deep Creek Cord-Marked and Deep Creek Net-Impressed rim sherds (Figure 4.11).

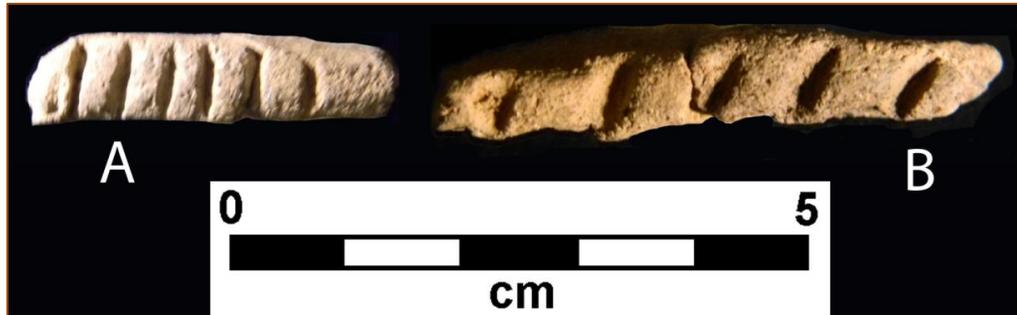


Figure 4.11 Deep Creek Plain Rims: Perpendicular (A) and oblique (B) notched

Deep Creek Simple-Stamped. Stamping is evident on 6 sherds (1%). The width of the stamping is broad (> 5 mm), while the stampings are either parallel or cross-stamped (Figure 4.12).

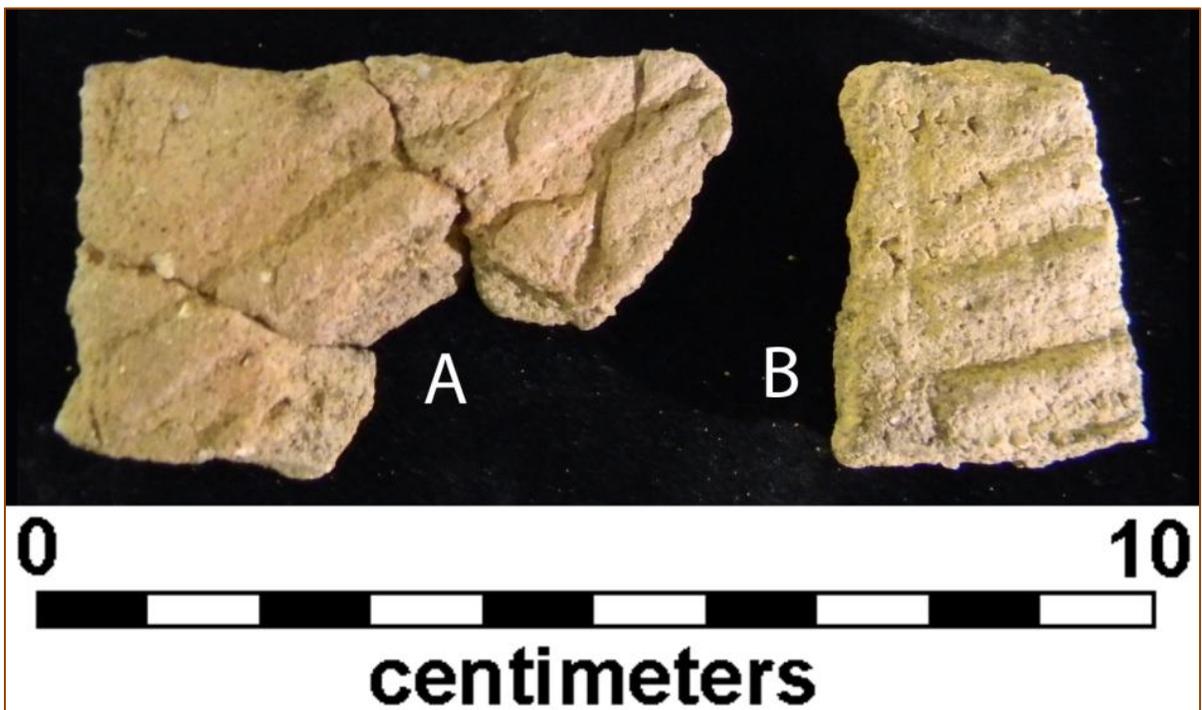


Figure 4.12 Deep Creek Simple-Stamped Sherds: Crossing on refit sherds (A)

Indeterminate Sand-Tempered Series

This series is fairly well represented at the site ($n=132$) at about 9% of the total assemblage. Temper particle sizes range from medium to pebble sized quartz sand and grit quartzes in a compact and slightly sandy clay paste. Temper abundances range from 1 – 40%, showing the full range of sparse to dense abundances. Temper granule size measures medium to very coarse ($n=61$, 46%), although smaller (medium to coarse, $n=37$, 28%) and larger (medium to granule, $n=34$, 26%) particles are also present. Temper abundance is relatively sparse (1 – 10%) for a majority of the sherds ($n=90$, 68%). Other abundances for this series include average ($n=38$, 29%) and dense ($n=4$, 3%). Sherd thickness ranges between 0.3 – 0.9 cm, with higher thicknesses absent due to a lack of bases.

This series has tentatively been dubbed Indeterminate sand-tempered because it could not confidently be called Cape Fear or Mount Pleasant. The group is distinguishable from Deep Creek by its smoother texture, sparse tempering, and the inclusion of an incised type. The temper abundance ($n=91$, 68% sparsely tempered) matches the definition of Cape Fear by Herbert (Herbert 2003:94, 156) as a series tempered with lower quantities of sand and grit compared to New River. Another possible answer lies with the Middle Town Series that Herbert reports Phelps thought of as a ‘fine tempered ware... for the terminal Middle Woodland period in the central and northern coastal regions’ (Herbert 2003:186) but the series was never published. Surface treatments found in these sherds do not match all those outlined by Herbert (2003) for Cape Fear. Parallel cord-marking and perpendicular, over-stamped, cord marking do not appear to be present. Though only oblique cord-marking is present more patterns are probably possible. However, the weft-faced fabric consisting of weft cordage interwoven over non-pliable warp elements may be a known type (Herbert 2003:156).

There are five types in the assemblage for this series: Indeterminate sand-tempered Cord-Marked, Indeterminate sand-tempered Fabric-Imprinted, Indeterminate sand-tempered Incised, Indeterminate sand-tempered Net-Imprinted, and Indeterminate sand-tempered Plain. The presence of an incised type makes the Indeterminate sand-tempered group's comparison to Mount Pleasant interesting. The surface treatments listed by Phelps (1983) for Mount Pleasant are the exact same as those found in the Indeterminate sand-tempered group.

Phelps (1983:32) described Mount Pleasant as:

a ware tempered with sand and larger clastic inclusions (pebbles, "grit") in varying amounts with types defined by surface finishes of fabric-impressing, cord-marking, and net-impressing, simple-smoothing to produce a plain type, and incising on otherwise plain surfaces.

The Indeterminate sand-tempered group has the surface treatments listed above by Phelps, but does not appear to be what is currently described as Mount Pleasant (cf. Herbert 2003:71). Sherd refits for this assemblage suggest that visual sorting of sherds based on granule sizes alone would lead to separating the same vessel into different series. Compared to Herbert's (2003) surface treatments for Mount Pleasant the Indeterminate group contains cord-marking in equal frequency (13% by wt.). Differences include higher frequencies of fabric impressing, net-impressing, and plain types, as well as a presence of incised decorations and an absence of stamped treatments. The frequency of surface treatments found in this sand-tempered group is shown in Table 4.2.

Table 4.2 Indeterminate sand-tempered surface treatment frequencies compared.

Surface Treatment	Count (<i>n</i>)	Count (%)	Weight (g)	Weight (%)
Cord-Marked	17	13	106	9
Fabric-Imprinted	45	34	501	46
Incised	23	17	227	21
Net-Impression	16	12	124	11
Plain	31	24	138	13

Indeterminate Sand-Tempered Cord-Marked. Cord-marking ($n=17$, 13%) is one Indeterminate sand-tempered surface treatment. The cord marking crosses the sherd body at oblique angles (Figure 4.13). Spacing between markings can vary. Overall markings are quite clear thanks to the strength and cleanliness of the compact paste and sparser temper of Indeterminate sand-tempered sherds.



Figure 4.13 Indeterminate sand-tempered Cord-Marked Sherds: Marks are shallow and cross at oblique angles.

Indeterminate Sand-Tempered Fabric-Impressed. Fabric-impressing is evident on 45 sherds (34%) making it the most common surface treatment for this series (Figure 4.14). There are two clear varieties of fabric-impression with a possible third variety. Fourteen sherds (42%) have a flexible warp variety (coarse–medium weft-faced, interwoven over cordage or fiber warp) may be what is described by Herbert (2003:70). The woven fabric has medium weave patterning in alternating directions. Some fabric-impressions are a medium weft-faced (1 – 2mm) fabric-impression. This is the case for the other clearly impressed variety ($n=4$, 9%). The remaining

sherds ($n=22$, 49%) most probably belong to these two varieties. However, their surfaces are either worn or smoothed to the point that the pattern is unclear.

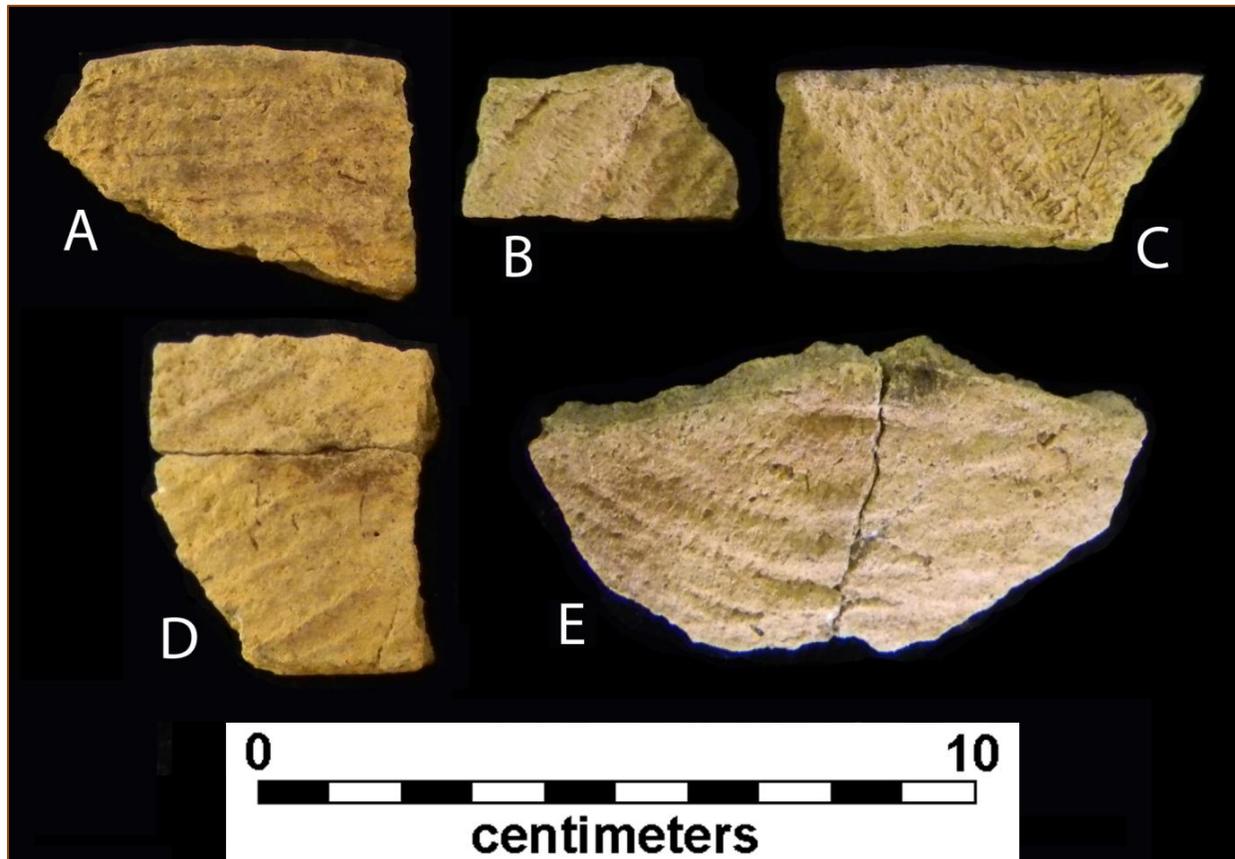


Figure 4.14 Indeterminate sand-tempered Fabric-Imprinted Sherds: A flexible warp with alternating impression directions (B and C), medium weave (E), and smoothed over fabric-impressed (A and D). Rim sherds include A and B. Coil break with visible internal paste (C).

The rim treatments for the Indeterminate sand-tempered Fabric-Imprinted sherds have two distinct forms (Figure 4.15). A rounded lip shaped rim is over-stamped with the same fabric-impression as on its exterior. The fabric-impression is the alternating direction pattern seen in the previous image (Figure 4.15). A flattened rim belongs to a straight sided bowl has wide flat impressions spaced about half a centimeter apart. The exterior of this rim was a smoothed over fabric-impressed sherd (Figure 4.14).

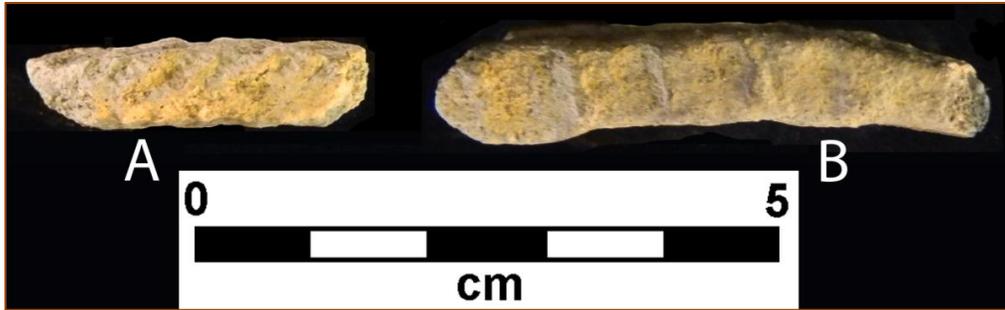


Figure 4.15 Indeterminate sand-tempered Fabric-Imprinted Rims: Over-stamped fabric-impression (A) and flattened (B).

Indeterminate Sand-Tempered Incised. A decoration type not seen in other series is incising, found on 23 sherds (17%) – (Figure 4.16). Incising appears random characterized by varying depths, lengths, and orientations. The width of the incising is 1 mm wide and it seems likely the same implement was used for all incisions. Indeterminate sand-tempered Incised sherds do not match exactly the Mount Pleasant incised sherd provided as an example by Phelps (1983:30, Figure 1.6:g).

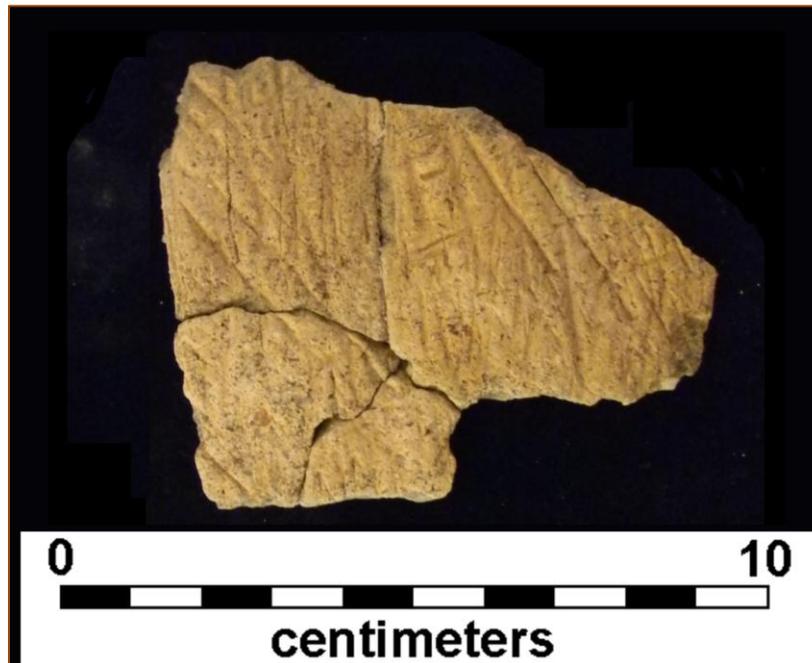


Figure 4.16 Indeterminate sand-tempered Incised Refit.

Indeterminate Sand-Tempered Net-Impressed. Net-impressing is evident on 16 sherds (12%) – (Figure 4.17). There are two very different varieties in this series. The first is a very thin cord with 1mm wide knots and irregular spacing ($n=9$, 56%). Knot spacing varies but is less than 5 mm which is considered a closed-weave. The second treatment ($n=7$, 44%) is a more regular-square-mesh and is also a closed weave.

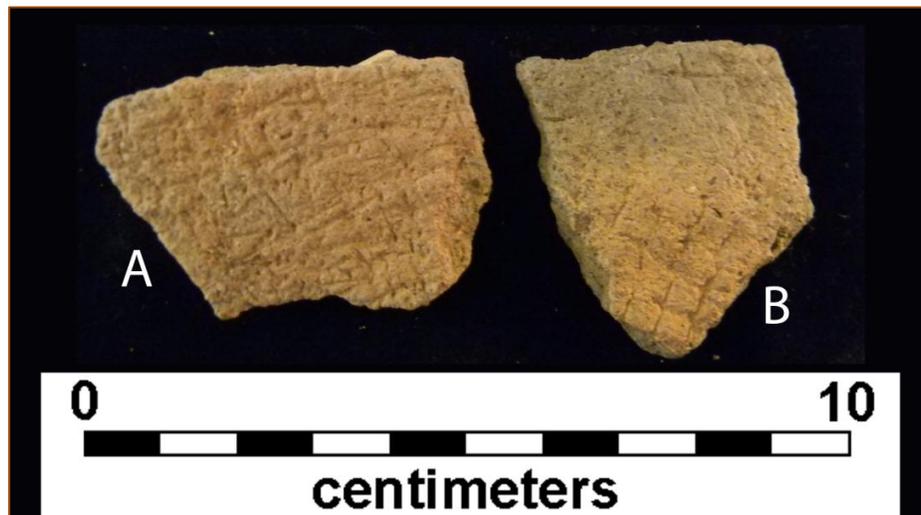


Figure 4.17 Indeterminate sand-tempered Net-Impressed Sherds: irregularly spaced (A), regular-square-mesh (B). Note off-white stone just visible above (A).

The rim treatment for the Indeterminate sand-tempered Net-Impressed (Figure 4.18) group is a rounded notch applied to the interior and exterior rim. The alternating pattern is the same seen on a Deep Creek Net-Impressed rim example (see Figure 4.9:B).



Figure 4.18 Indeterminate sand-tempered Net-Impressed Rim.

Indeterminate Sand-Tempered Plain. There are 31 sherds (24%) with Plain surface treatments in this series (Figure 4.19). The different rim shapes and treatments suggest at least two vessels.

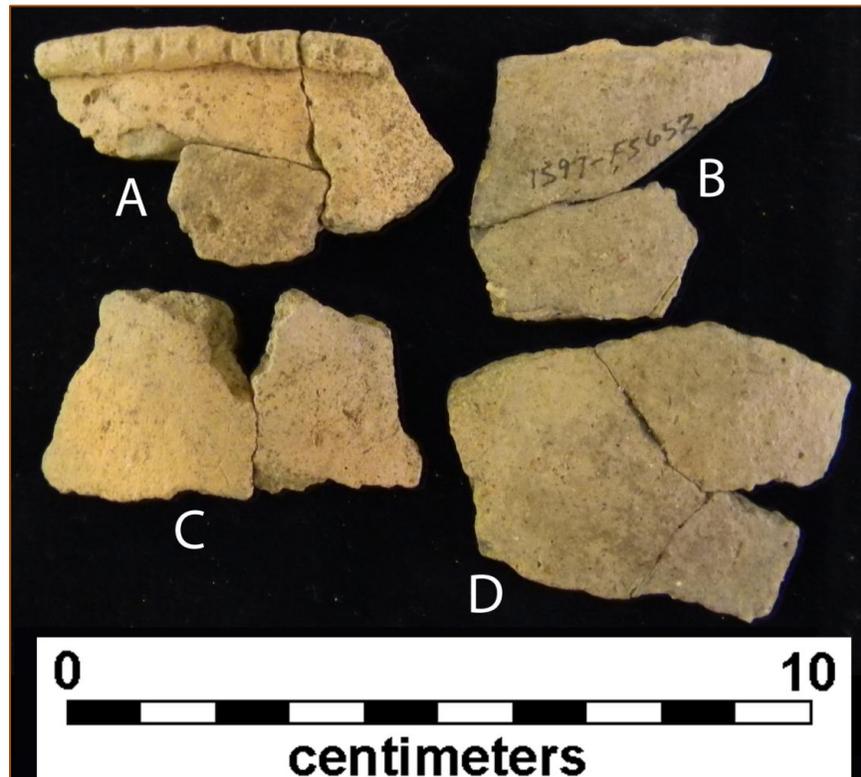


Figure 4.19 Indeterminate sand-tempered Plain Sherds: Folded rim (A), pointed rim (B), body sherd refits (C and D).

The rim-treatments for plain surfaces include an impressed and a notched type (Figure 4.20). A pointed rim with wide flat impressions applied to the interior rim. A folded-plain-lip has notches applied to the interior and exterior of the rim. The folded rim's exterior is everted 2 mm in places (the width of the rim narrows from left to right). Notching is also exhibited on the Deep Creek rim treatments of this assemblage.

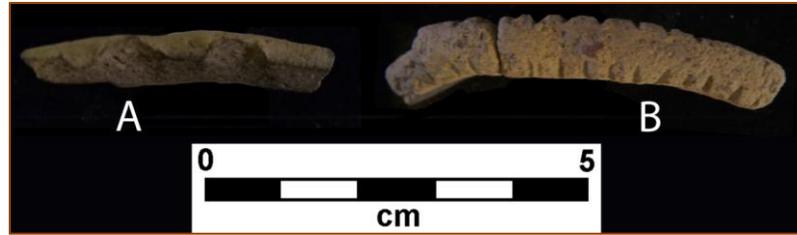


Figure 4.20 Indeterminate sand-tempered Plain Rims: pointed lip with wide flat impressions (A), folded rim with interior and exterior notching (B)

Residual Sand-Tempered Sherds

This is a category of sherds with sand tempering whose pastes or surface treatments were not immediately comparable to those of existing series (i.e. Cape Fear, Deep Creek, Mount Pleasant) or the Indeterminate sand-tempered group above. Therefore, erring on the side of caution they are considered residual indeterminate sand-tempered sherds.

Sand-Tempered Cord-Marked. There is a single sherd with a peculiar cord-marked surface that does not fit within any other known type (Figure 4.21). The temper is medium to very coarse sized sand quartz of sparse abundance. The vessel wall thickness is 0.9 cm. It has a sandy but smooth texture. Shallow cord-marking of 1 mm width covers the sherd exterior.

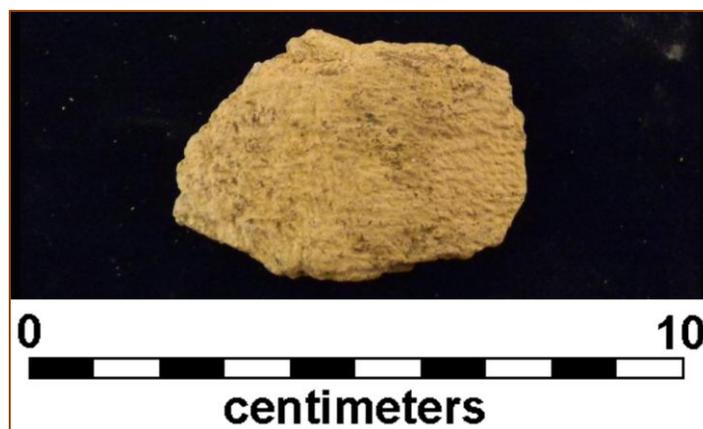


Figure 4.21 Sand-tempered Cord-Marked Sherd.

A second group of residual cord-marked sherds bears resemblance to the oblique angle crossing on the Indeterminate sand-tempered Cord-Marked surfaces and thin walls (Figure 4.22).

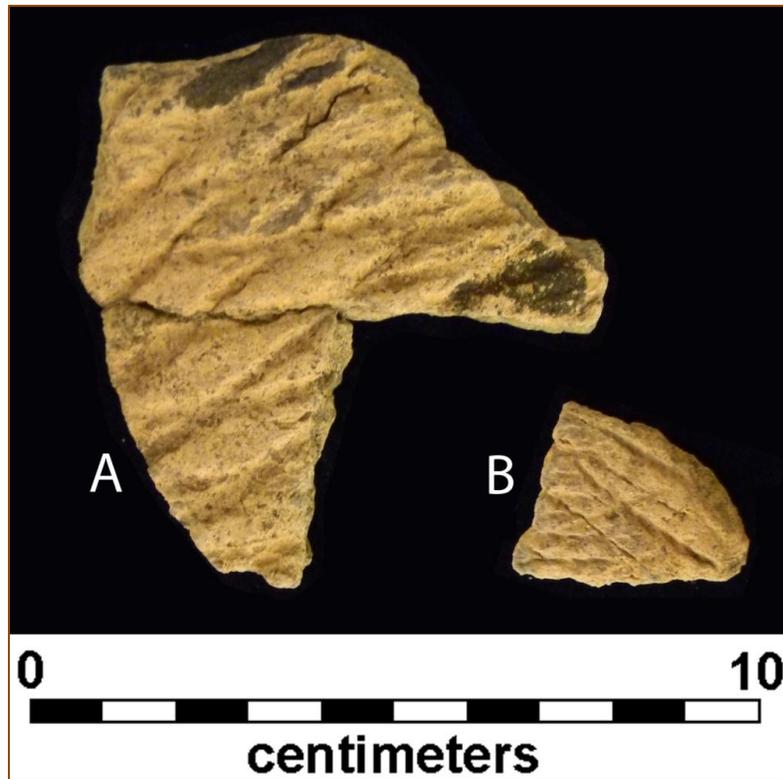


Figure 4.22 Sand-tempered Cord-Marked sherds: A refit of two larger sherds with a similar impression in this group that shows that this cordage (1.5mm wide) can create rounded diamond shaped spaces between markings 0.4 x 1 cm in size (A). Technically this section of the vessel shows a cross-cord marking at an oblique angle. The cord markings depth for these two sherds is 1.5mm. Sherds marked with thinner-more closely spaced-cords were more numerous ($n=19$) (B).

Its temper and paste combination is similar to Deep Creek. Of the 25 sherds, there are two refits. Temper size is medium to pebble sized quartzes of primarily sparse (1 – 10%, $n=8$) and average (10 – 20%, $n=11$) abundances though two sherds had denser abundances. A few voids in the paste (rounded or long and thin in shape) also suggest the possibility of the use of secondary

temper. Vessel walls range in thickness between 0.35 – 0.9 cm. These sherds are sandy but smooth to touch with well preserved breaks. The surface treatment exhibits thin and shallow cord marks (0.5 – 1 mm and 0.5 – 1 mm) that have a slight curve and sometimes cross. There is some variation in the compactness of the sherds' paste. Considering the paste and cord size differences it seems plausible that the pattern is manifested on two different vessels.

Sand Tempered Fabric-Imprinted.—There are six sherds with fabric-impressed surfaces with a combined weight of 58g (Figure 4.23).

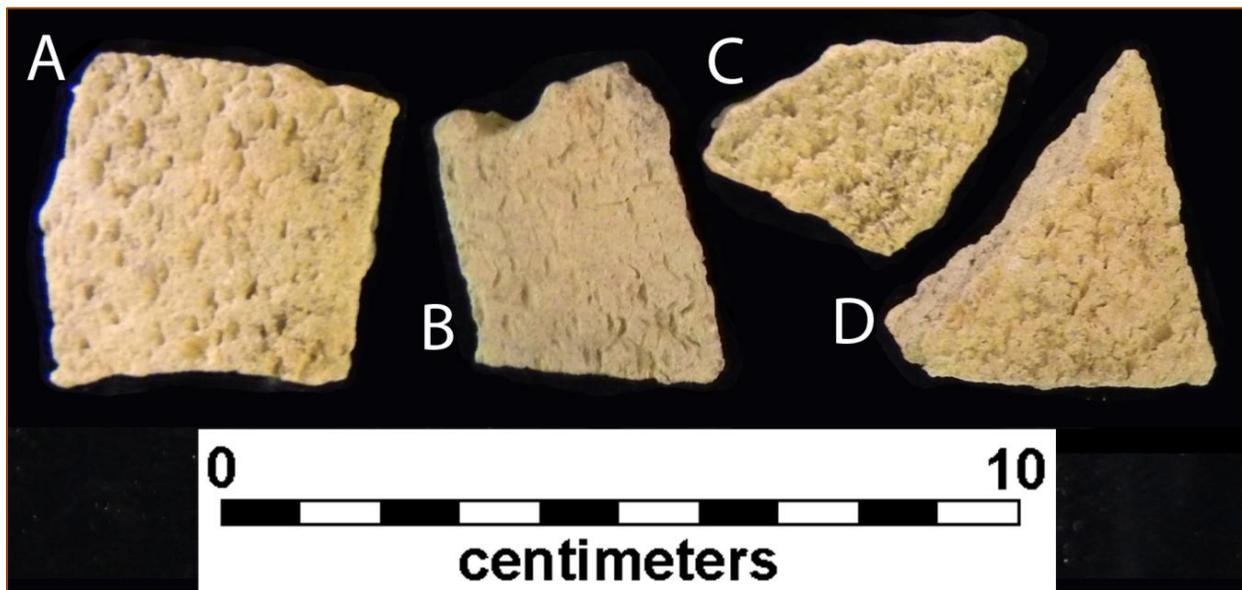


Figure 4.23 Sand-tempered Fabric-Imprinted Sherds: Note mending-hole (B).

The surface treatment for this group is an unknown series of fabric-impression measuring 1.5 – 3 mm wide and 1 mm high. The depressions are slightly curved and can appear crescent shaped. One example has a mend hole preserved along the sherd edge. Temper variation is medium to very coarse quartz sand of sparse to average abundance. Vessel thickness ranges from 0.55 – 1 cm wide. Sherds in this group are smooth yet slightly sandy to the touch. Breakages are even but appear slightly worn along the coils in some cases.

Sand-Tempered Net-Impressed. A residual group ($n=2$) of sherds had medium to very coarse quartz sand of average abundance. Grit sized limonite particles exist in the paste. Vessel wall thickness ranges from 0.6 – 0.75 cm. The surface treatment for these sherds is a closed-weave net-impersion, but also resembles a coarse weft-faced fabric-impersion. The depressions are 1 – 2 mm wide with 1 – 4 mm wide spacing (seen in Figure 4.24). These sherds are sandy yet smooth to touch and have small black spots visible on the interior resulting from the firing process. Breakages are even and occur often along coil breaks with limited wear.

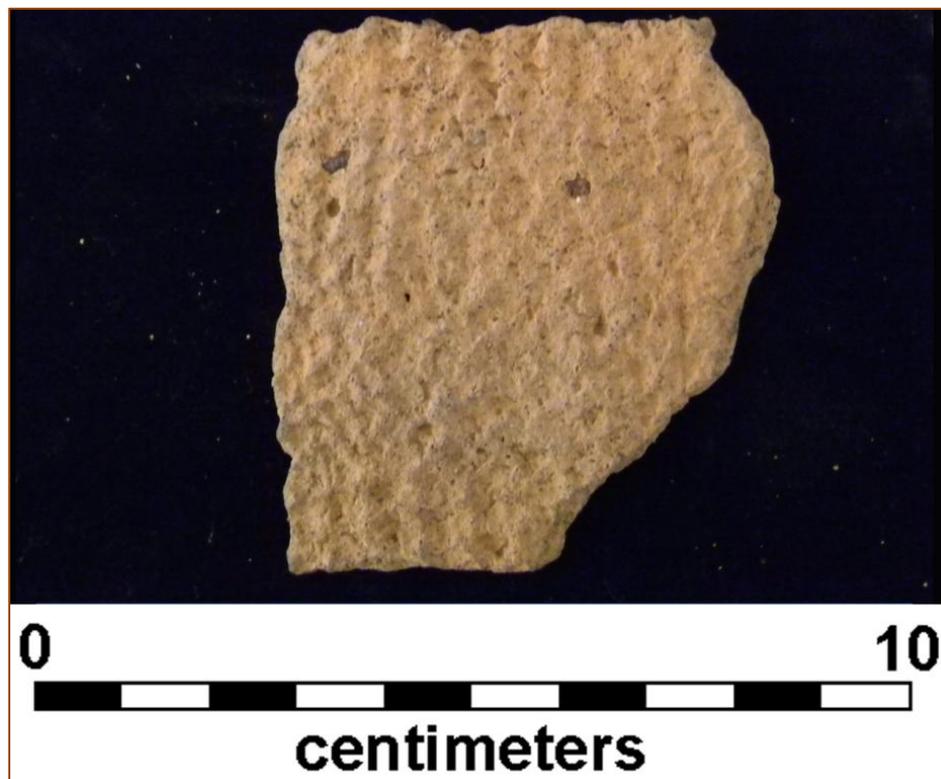


Figure 4.24 Sand-tempered Net-Impressed Sherd: Note limonite on exterior (darker red pieces)

Another net-impressed sherd-group ($n=2$) temper is medium to very coarse sand of sparse abundance (Figure 4.25). Vessel wall thickness ranges from 0.5 – 0.6 cm. A barely visible closed weave net-impersion is the surface treatment. Knots and lines are 0.5 mm wide and appear closely spaced every 1 – 2 mm. Breakages are even and well preserved if somewhat

lumpy. These sherds also contain very reflective micas, long and narrow voids of unknown origin, and medium to coarse limonite that should be considered a trait of the paste clay rather than temper. The presence of mica in sherds found in the coastal plain is discussed in Herbert (Herbert 2003:219-2210).



Figure 4.25 Sand-tempered Net-Impressed Sherd: Note narrow voids on sherd exterior.

Sand-Tempered Punctate. A single rim sherd is present with circular reed-punctating which may be a zone linear type (reed or awl, stab-and-drag, or stab-and lift around neck). The folded rim treatment, extending 2 – 5 mm down the exterior surface, is similar to Hanover folded types. The rim contains a large quartz sliver, and has a strong curvature suggesting this was a small vessel. The temper is medium to pebble sized quartz sand (probably crushed) of sparse

abundance. The exterior surface is decorated with 1 – 2 mm wide circular punctuations numbering at least ten on this small sherd (Figure 4.26). Reported series with punctated types include: Hamp’s Landing, Hanover, Thom’s Creek, Refuge (Allendale), and Mount Pleasant (Herbert 2003).

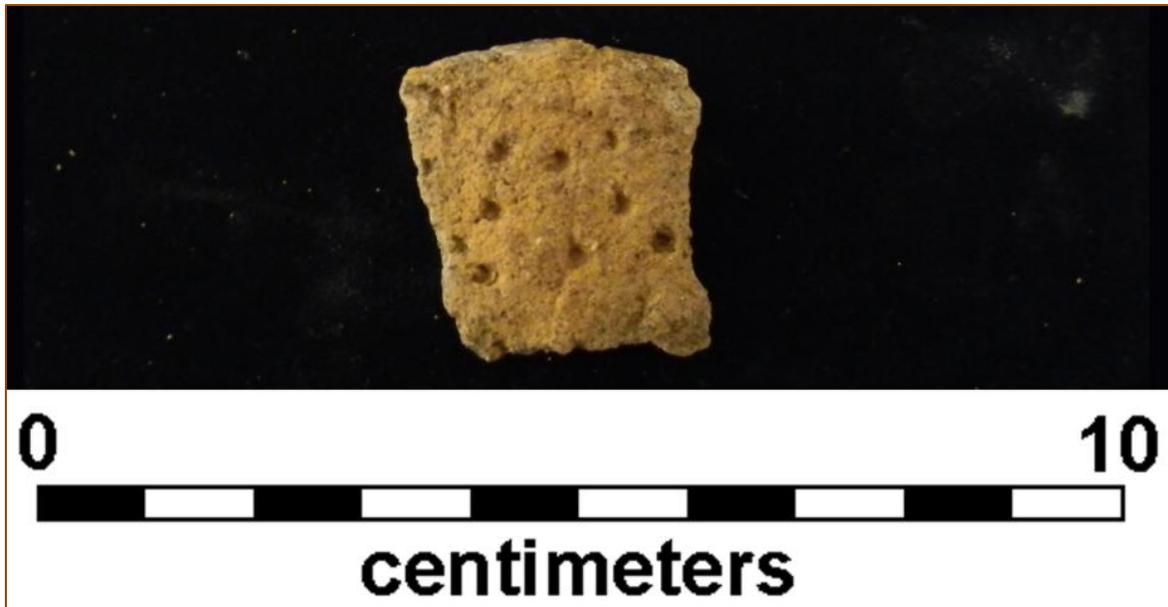


Figure 4.26 Sand-tempered Punctated sherd: The folded rim is barely detectable.

The rim has notching on the lip about 1.5 mm wide and spaced 3 – 5 mm apart. There is a sharp curvature to the walls suggesting a small vessel (see Figure 4.27).



Figure 4.27 Sand-tempered Punctate Rim: Note quartz sliver interrupts indentions.

Hanover

The Hanover Series includes clay tempered wares of the Middle and Late Woodland Period. This series is divided into two phases: Hanover I (AD 400 – 1000) and Hanover II (AD 900 – 1600) (Herbert 2002:159-160). The sherds tempered with more ‘sand than grog’ are thought to date to earlier periods than those tempered with more ‘grog than sand’ (Herbert 2003:159-160). The temper specimens from the Barber Creek assemblage are not crushed sherds but rather amorphous lumps of clay that are thought to have been pre-fired and used as a temper.

Hanover is the Middle Woodland series identified for the Southern Coastal Plain (South 1976:16), however, it has been found in the Northern Coastal Plain (Phelps 1983:32). Hanover I sherds ($n=132$) represents 9% of the total assemblage. Hanover I sherds are defined as having “a small amount of finely crushed grog...sometimes added to a primarily sand-tempered paste” (Herbert 2003:159). Temper of sand and clay lumps range in size from medium to pebble sizes in a compact sandy clay paste. The sandier paste of Hanover I sherds cause their texture to be more abrasive than those sherds belonging to Hanover II. Temper abundance varies from 1 – 30% meaning there are sparse to densely tempered sherds. The most common temper size is medium to very coarse sized clay lumps with sand $n=58$ (44%) while another major temper group ($n=49$ or 37%) have medium to granule or medium to pebble sized tempers. Although a variety of temper abundances are present there is a strong trend ($n=84$, 64%) towards sparsely tempered sherds (1 – 10%). Sherd thickness ranges from 0.3 – 1.6cm with 79% ($n=104$) measuring less than 8 mm.

There are three series types for Hanover I: Hanover I Cord-Marked, Hanover I Fabric-Imprinted, and Hanover I Plain (Table 4.3).

Table 4.3 Hanover I surface treatment frequencies compared

Surface Treatment	Count (<i>n</i>)	Count (%)	Weight (g)	Weight (%)
Cord-Marked	33	25	217	24
Fabric Impressed	93	70	662	72
Plain	6	5	42	5

Hanover I Cord-Marked. Cord-marking is evident on 33 sherds (25% of series). The depths of the cord-impressions vary from 0.25 – 1.5 mm. Cords markings are parallel but also cross in some cases. Moreover, the cross-cord-impressions occur at oblique angles.

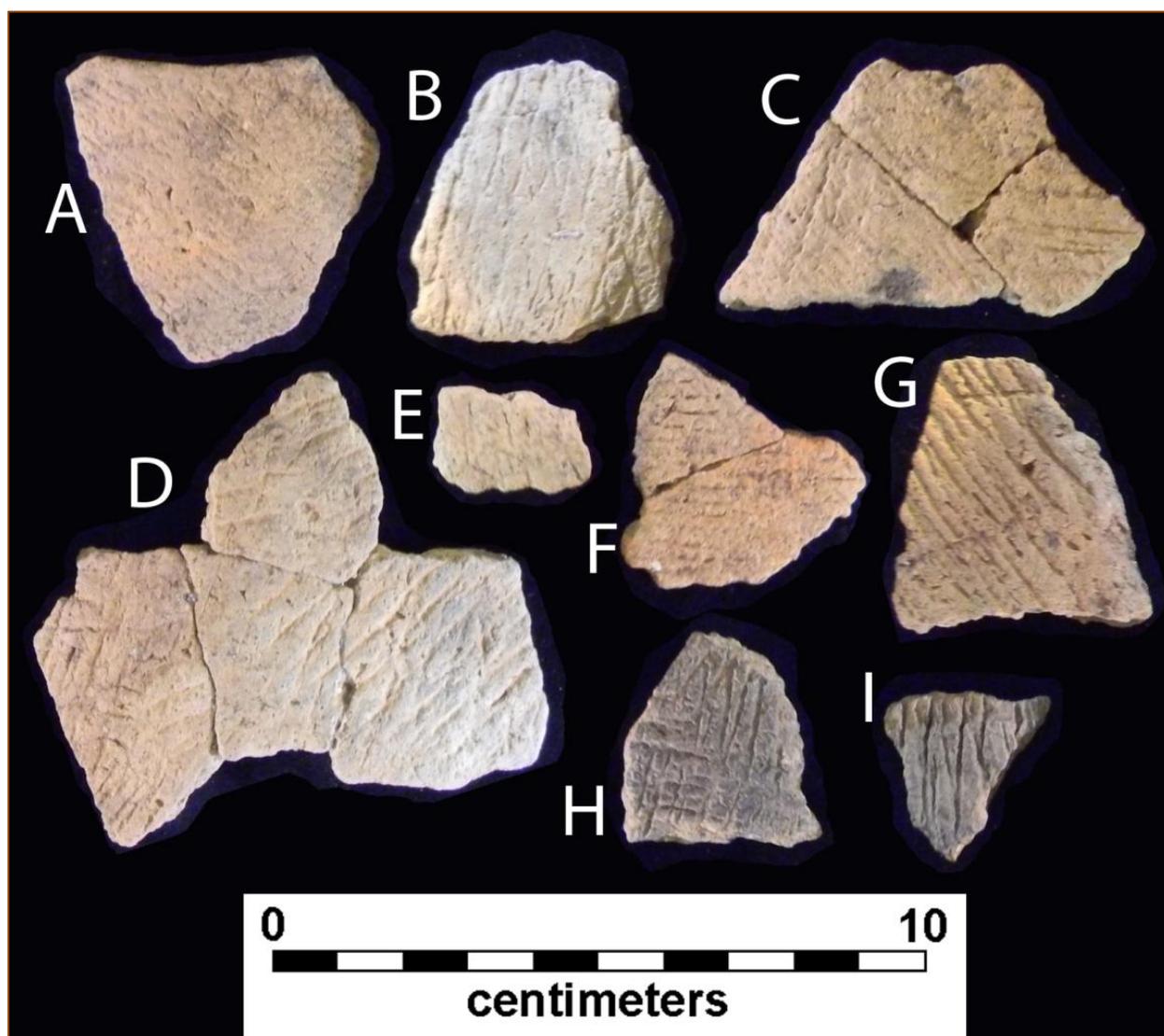


Figure 4.28 Hanover I Cord-Marked Sherds: Rim sherd (A), oblique crossing (B, D, H – I).

There are enough differences in the cord width, temper abundance, and sherd thickness to suggest more than one vessel. Voids in the exterior surface might indicate temper particles which are no longer present.

Of rim shapes, there exists a rounded simple rim variety with notching for the Hanover I Cord-Marked group (Figure 4.29). Cord-marking is oblique to the lip direction, while notching is perpendicular to the cord marking on the exterior.



Figure 4.29 Hanover I Cord-Marked Rim: Two notches are visible in the center.

Hanover I Fabric Impressed. Fabric-impressing is evident on 93 sherds (71%) in this group. There are both flexible and rigid warps for *Hanover I* in this assemblage (Figure 4.30). A group ($n=7$) accounting for 5% sherds shows a spaced weft, over stamped variety (i.e. fine-coarse weft, spaced on non-cordage warp). A coarse weave (> 2 mm) is also a minority ($n=12$, 9%) and includes one rim sherd. A flexible warp (i.e. coarse-medium weft-faced, interwoven over cordage or fiber warp) was seen on 27% ($n=38$) of Hanover I sherds. A medium weave (1 – 2 mm) accounts for 45% ($n=59$) of varieties. Fine weave (< 1 mm) represents 8% ($n=11$) of the fabric varieties. A conical base was partially reconstructed from three sherds.

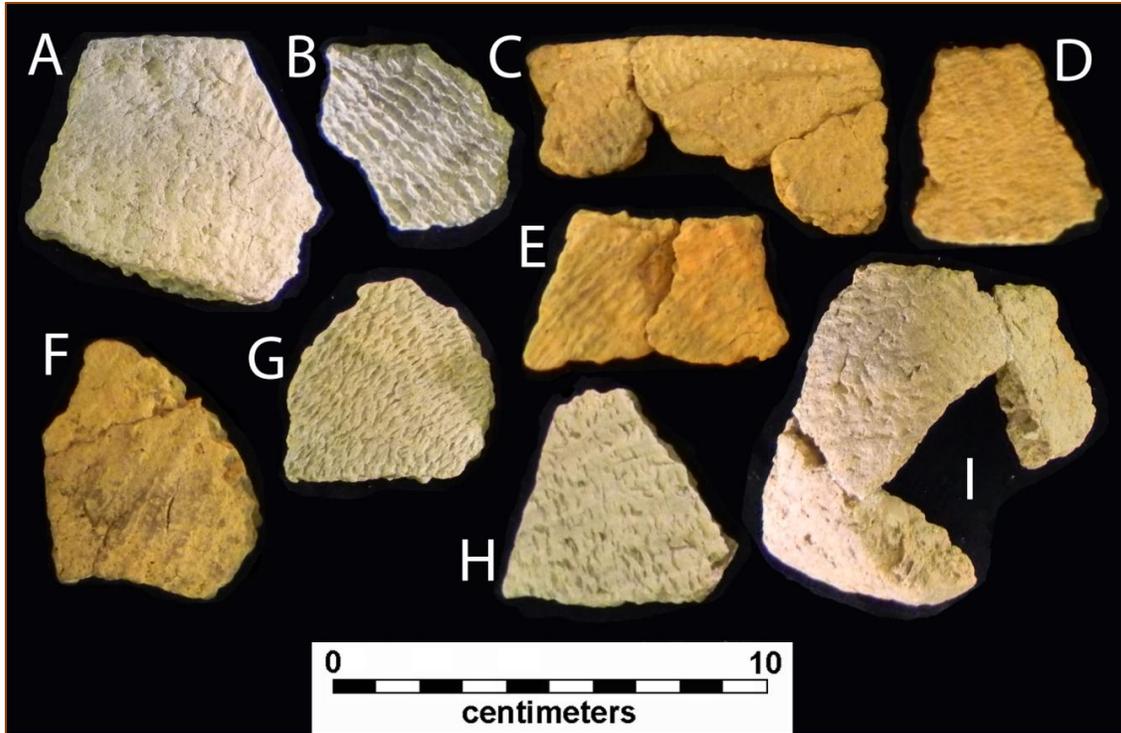


Figure 4.30 Hanover I Fabric-Imprinted Sherds: Rim sherds (A – C, conical base refit (I). Fabric impressions include: spaced weft (A), coarse weave (B), medium weave (C, E, and H – I), flexible warp (D and G), and fine weave (F).

Rim treatments for the Hanover I Fabric-Imprinted sherds include rounded lipped rims with notching, as well as a folded rim with over-stamping fabric impression (Figure 4.31).

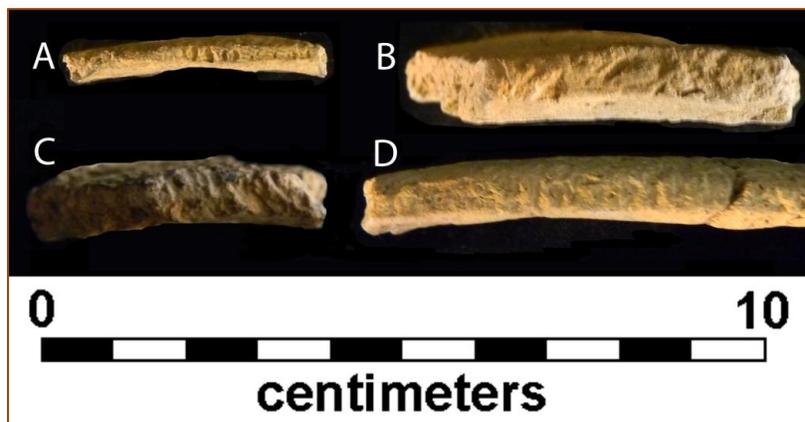


Figure 4.31 Hanover I Fabric-Imprinted Rims: notched rims (A and B), over-stamped fabric-impressed (C and D).

Hanover I Plain. A plain surface treatment accounts for just 5% of Hanover I sherds ($n=6$) (Figure 4.32). A folded rim sherd is very sandy to the touch. Larger pebble sized temper elements were recorded for all sherds.

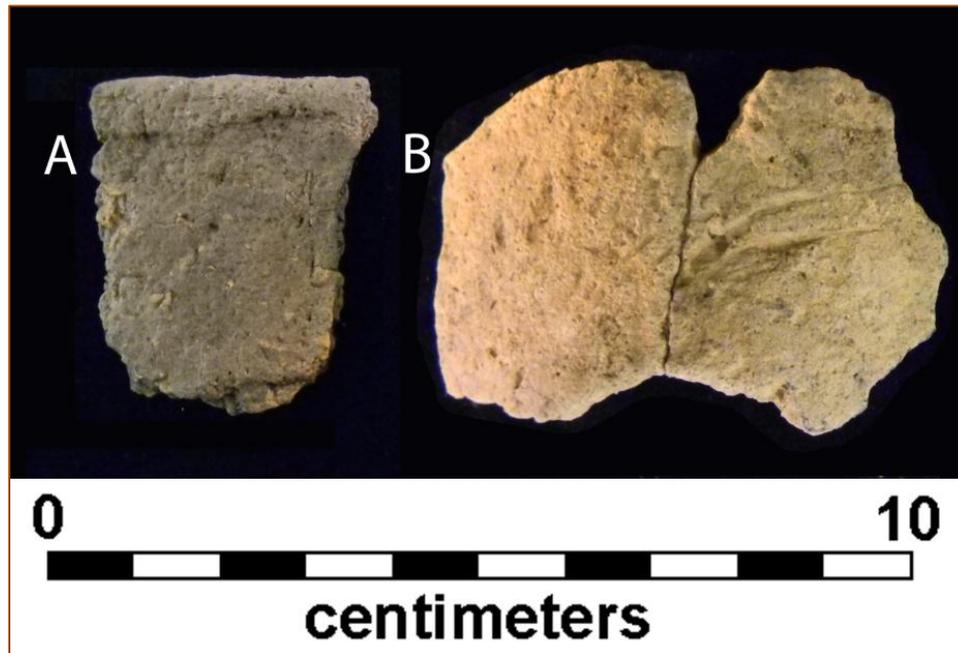


Figure 4.32 Hanover I Plain Sherds: Folded rim (A).

One rim sherd was a rim sherd in the Hanover I Plain group. Figure 4.33 is an above view of the rim sherd in Figure 4.32 (A). Despite the folded shape of the rim it appears to be flattened without the use of a wrapped paddle.



Figure 4.33 Hanover I Plain Rim.

Hanover II in this assemblage includes sherds primarily tempered with clay but a minor amount includes sand as well (Cable et al. 1998; Herbert 2003:160; Phelps 1983:32; South 1976:16). The total number of sherds for this group is 132 (9% of assemblage). Temper particle size for this group ranges from medium to pebble sizes in a fine compact clay paste. Temper abundances range from 1 – 25%. Hanover II sherds contain a lower incidence of sand as a secondary temper than Hanover I. The most common particle size recorded was medium to very coarse clay and quartzes (n=72, 55%). There are another 36 sherds (27%) with medium to granule or medium to pebble sized sands and clay lumps. While temper abundances vary the most common abundance is sparsely tempered (n=103, 78%). Sherd thickness ranges from 0.35 – 1.4 cm including two basal sherds.

There are three series types for the Hanover II phase in the assemblage: Hanover II Cord-Marked, Hanover II Fabric-Imprinted, and Hanover II Plain (Table 4.4).

Table 4.4 Hanover II surface treatment frequencies by wt.

Surface Treatment	Count (n)	Count (%)	Weight (g)	Weight (%)
Cord-Marked	6	5	54	7
Fabric Imprinted	123	93	761	92
Plain	3	2	11	1

Hanover II Cord-Marked. Cord-marking is evident on a refit of 6 sherds (5%). They form a partially reconstructed base (Figure 4.34). The cords are quite narrow at 0.5 mm wide and are spaced between 1 – 1.5 mm. Cord-markings are parallel although one refitted sherd on the vessel shows a slight oblique crossing.



Figure 4.34 Hanover II Cord-Marked base refit: Oblique crossing top sherd.

Hanover II Fabric-Imprinted. Fabric-Impressions for the Hanover II Series ($n=123$, 93%) are shown in Figure 4.35. The most common surface treatment ($n=99$, 75%) is a medium weave fabric (1 – 2 mm). A fine weave (< 1 mm) is 7% ($n=9$) of the impressions. A small number of flexible warp fabrics are also recorded ($n=24$ 18%). A large partially reconstructed vessel exemplifies a medium weave group.

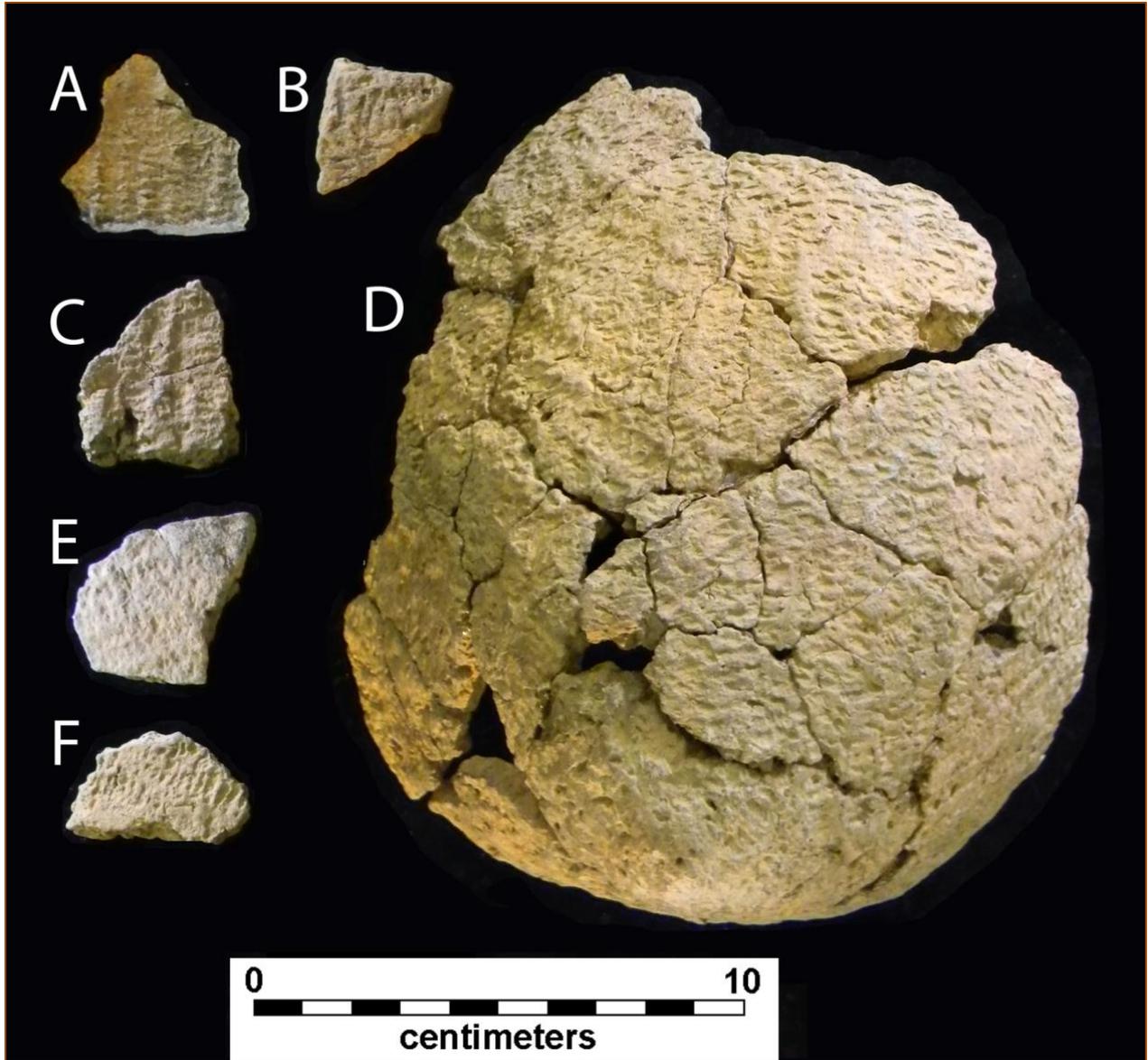


Figure 4.35 Hanover II Fabric-Imprinted Sherds: Medium weave (A – D, and F), fine weave (E). Base refit (D).

Hanover II Plain. Two sherds have plain surfaces, and make up less than 1% of the group (Figure 4.36).

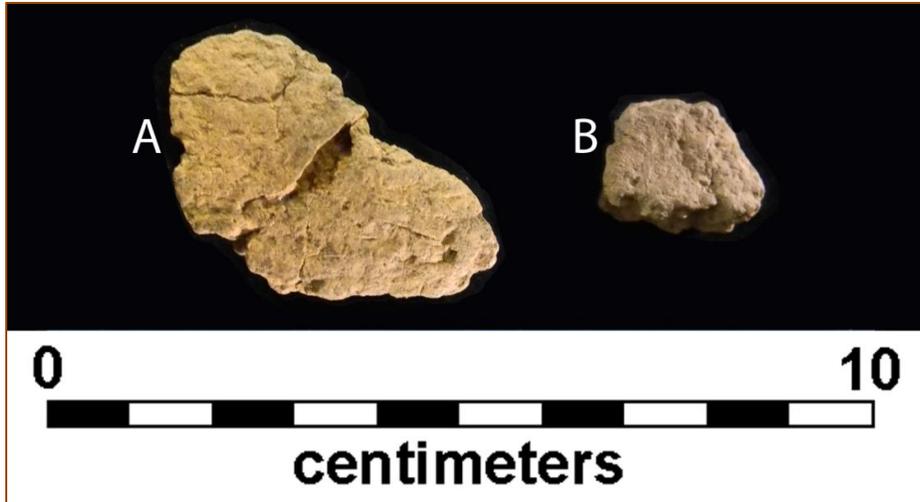


Figure 4.36 Hanover II Plain Sherds: Refit (A).

Hamp's Landing

This is another minority series in the assemblage with two refitted sherds. The pair of sherds accounts for < 1 % of the total assemblage. Hamp's Landing is an Early – Middle Woodland series tempered with crushed marl or limestone (Hargrove 1993; Herbert 2003:55). It has been found along the Pamlico River and coastal areas to the south (Herbert 2003:209). It is easily identified by numerous blocky voids in the paste where marl or limestone tempering existed before firing. The sherd thickness is 0.6 – 0.75 cm. While marl is the primary temper small amounts of medium to very coarse quartz sands exist as a secondary temper. The marl temper was dense (> 20 %) with < 5 % sand tempering.

Hamp's Landing Net-Impressed. The only surface treatment present on these sherds is a closed weave (< 5 mm) net-impression. The net impression (Figure 4.38) has 1.5 – 2.5 mm wide knots with 1 mm wide cordage. The impressions are up to 1.5 mm deep.

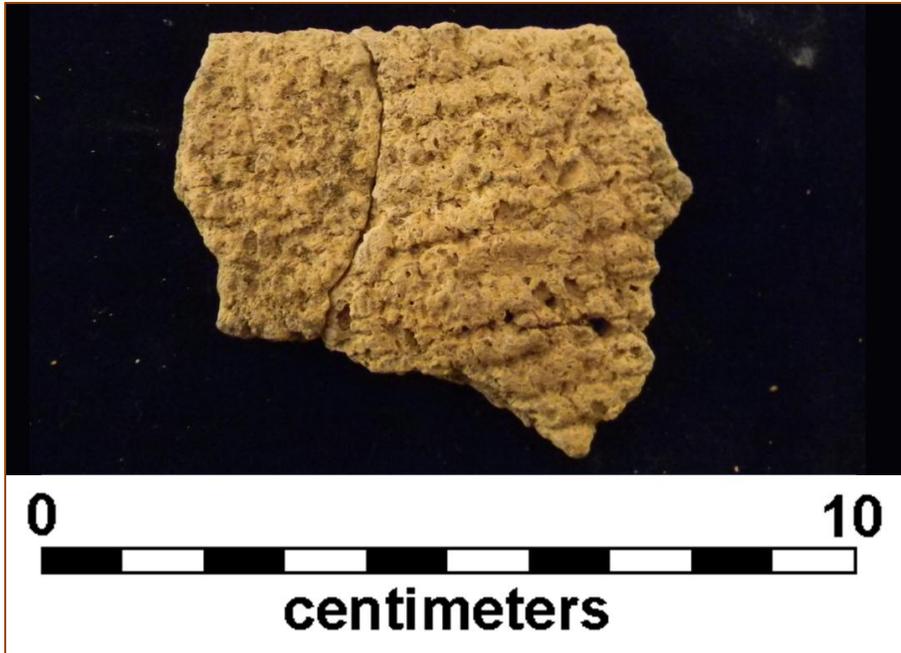


Figure 4.37 Hamp's Landing Net-Impressed Refit.

Interior surfaces of the sherds, which were untreated, are easier to identify voids on than the exterior surfaces. The voids themselves measure medium to pebble size (Figure 4.38).

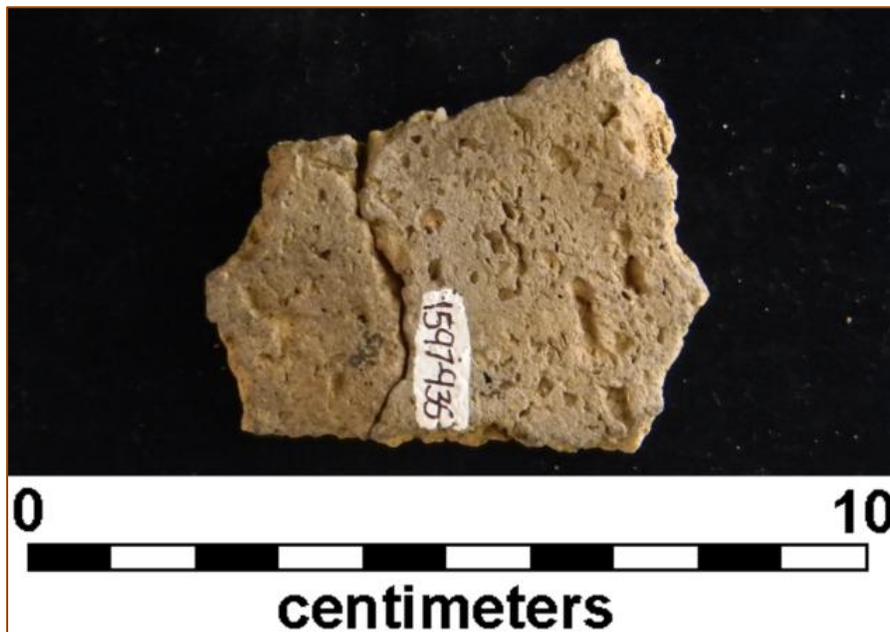


Figure 4.38 Hamp's Landing Refit Interior: Note blocky voids.

Summary

This chapter presented the results of a ceramic analysis performed on 2731 sherds recovered from trench excavations totaling 40m² at Barber Creek. While Deep Creek represents the dominant series in the assemblage, Hanover and Hamp's Landing series sherds were also present. Taken together, Early-to-Middle Woodland occupations are indicated. A potentially new series—tentatively labeled Indeterminate sand-tempered—was identified in the assemblage that may also reflect a Middle Woodland occupation at the site. Sherd refits were also undertaken in the assemblage providing some information on vessel shape (Appendix B). Previously unreported rim sherd treatments were also described for each series.

Deep Creek Phase Testing

Some final comments need to be made regarding the frequency distribution of Deep Creek sherds by level (Table 4.5). The vast majority of sherds are present in Level 3 with lesser frequencies occurring just above (Level 2) and below (Level 4) Level 3. Greatly decreased frequencies are present in Level 1 and Levels 5-7. A similar pattern has been documented in previous analyses (McFadden 2009; Moore 2009) and is interpreted to represent an Early to Middle Woodland occupation occurring on a relatively stabilized land surface that is now about 20-30 cmbs. The lesser artifact frequencies in levels above and below Level 3 are likely due to artifact drift as a result of cultural or natural disturbances. In short, while the ceramic types can be separated typologically, separating Early and Middle Woodland occupations stratigraphically is problematic.

Table 4.5 Surface Treatment Frequencies by Level

Level Depth in cm.	Cord		Net		Fabric		Indeter.		Plain		Stamped		Total
	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)	<i>N</i>	(%)	<i>n</i>	(%)	<i>n</i>
0–10	7	(29.2)	5	(20.8)	4	(16.7)	8	(33.3)	-	-	-	-	24
10–20	120	(41.1)	79	(27.1)	23	(7.9)	60	(20.6)	7	(2.4)	3	(1.0)	292
20–30	232	(44.5)	175	(33.6)	17	(3.3)	85	(16.3)	12	(2.3)	-	-	521
30–40	87	(47.0)	68	(36.8)	2	(1.1)	21	(11.4)	6	(3.2)	1	(0.5)	185
40–50	13	(35.1)	15	(40.5)	1	(2.7)	7	(18.9)	1	(2.7)	-	-	37
50–60	2	(14.3)	9	(64.3)	-	-	1	(7.1)	1	(7.1)	1	(7.1)	14
60–70	-	-	1	(100.0)	-	-	-	-	-	-	-	-	1

Total: *n*=1074, 71%)

CHAPTER 5: CONCLUSIONS

This study presented the results of an analysis of a large ceramic assemblage thought to date to the Early and Middle Woodland periods of Barber Creek. Particular emphasis was given to the Deep Creek series sherds in the assemblage. In this chapter I return to the two research questions posed in Chapter 1 dealing with refining the definition of Deep Creek ceramics. First, I address the range of variation in temper and surface treatments in the Deep Creek assemblage. Second I examine the surface treatment frequencies with respect to the existing three phase sequence proposed for Deep Creek. The findings indicate that Deep Creek sherds utilize a slightly larger temper size than previously thought. Deep Creek types include those enumerated in previous studies (Martin 2004, Phelps 1983). Further Deep Creek fabric-impressed and simple-stamped types contained more grit elements than other Deep Creek types at Barber Creek. By replacing hypothesized frequencies with real data, a Deep Creek assemblage will now be comparable with other sand-tempered traditions of the Southeast. With regards to Deep Creek phasing, the results were inconclusive because deposition of Woodland ceramics from throughout the period in the same 1 m deposit means apparent divisions within the record are likely not representative of past phases.

Temper and Surface Treatment Range

What is the range of variation in temper and surface treatments in a Deep Creek assemblage? Phelps (1983:29-32) defined Deep Creek pottery as being tempered with coarse sands. Subsequently, Martin (2004:71-75) further clarified the paste in Deep Creek ceramics as being fine to medium-grained sand with occasional pebbles up to 2mm in size. The range of

Deep Creek temper found in this study was medium to pebble sized quartz sand and gravel in a sandy and somewhat friable to compact paste consistent with Martin's (2004) results. The majority of the sherds (n=716, 77%) have medium-to-very coarse sand-sized quartz temper in various combinations in the paste. The remaining sherds are tempered with medium-to-pebble sized temper. This suggests that these larger elements could be considered incidental in the paste. A higher percentage (49%) of gravel sized tempers (granule and pebble) was found in the Deep Creek Fabric-Imprinted type than in other treatments (see Table 5.1). This is interesting because fabric-impressed types are more popular in the Middle Woodland and thus later Deep Creek types would also probably contain larger temper particles.

Table 5.1 Deep Creek Gravel Sized Tempers by Surface Treatment

Surface Treatment	Total Count	Sherds with Gravel	Percentage of Total
Cord-Marked	473	100	21.1
Fabric-Imprinted	48	26	54.2
Net-Imprinted	354	55	15.5
Plain	27	3	11.1
Simple-Stamped	6	3	50.0
Base Sherds	10	2	20.0

Temper sizes of medium to pebble sized sand and gravel are not uncommon for Early Woodland ceramics (Coe 1964:27-28, 84). Deep Creek then is well placed in the Early Woodland Period. Previous research has noted that Deep Creek is not “exclusively coarse grained” (cf. Martin 2004:73) and therefore the wider ranges of temper identified in this study is consistent with an expanded range of temper sizes.

Temper abundances ranged from 1 - 40% with a majority (n=574, 61%) between 10 - 20%. Temper abundances of lower and higher quantities were roughly equal in amount. Therefore we can say that although the range of temper abundance is quite wide, a temper

abundance between 10 -20% is most commonly found. This is in agreement with previous research on Deep Creek sherds from Barber Creek (see Martin 2004:73).

Deep Creek Surface Treatment Phases

How does the frequency distribution of surface treatments compare to the three part sequence proposed by Phelps (1983)? As noted in the previous chapter, attempting to stratigraphically separate the ceramic period occupations at Barber Creek is problematic. Hence, it is best to view the Deep Creek assemblage as a single component. As such, the relative frequencies of surface treatments in the assemblage (Table 5.2) are consistent with the relative order of surface treatments for Deep Creek as proposed by Phelps (1983:29-31) and identified in Martin's (2004:71-73) study. In the Barber Creek assemblage cord-marking is the predominant ceramic type in the assemblage (ca. 51%) followed by somewhat lesser frequencies of net-impressing (ca. 38%) and then relatively minor occurrences of fabric-impressed (ca. 5%), plain (ca. 3%) , and simple-stamped (ca. 1%) sherds. Placing the assemblage into one of the three hypothetical phases proposed by Phelps (1983) is somewhat tricky, however, as he only proposed the relative order of occurrences of surface treatment types for each phase. No percentages for surface treatment frequencies are provided. For example, Phelps notes a predominance of cord-marking in all three phases with net- and fabric-impressed pottery increasing in frequency over time at the expense of cord-marking. Martin (2004), however, has proposed surface treatment frequencies for Deep Creek I and II (Table 5.2) based on his data which allows some comparisons to the results of this study¹.

¹ This data may also be problematic for detecting phasing if deposition mirrors this Barber Creek assemblage.

Table 5.2 Comparison of Deep Creek surface treatments between studies.

Surface Treatment	Cord-Marked	Net-Impressed	Fabric- Impressed	Plain	Simple- Stamped
Barber Creek ¹	50.53%	37.82%	5.13%	2.88%	0.64%
Deep Creek II ²	25-30%	35-40%	5-10%	5-10%	5-10%
Deep Creek I ²	45-50%	15-20%	15-20%	5-10%	-

¹This study

²Martin 2004 Table 5.1 [Barber Creek (31PT259) and Parker (31ED29) sites]

Comparisons of the surface treatment frequencies in Table 5.2 indicates that the Barber Creek assemblage in this study most closely matches the Deep Creek II phase frequencies proposed by Martin (2004:5.1)—with one exception. The relatively high frequencies (ca. 51%) of cord-marking are more consistent with the frequencies Martin (2004:5.1) predicted for Deep Creek I phase cord-marking (45-50%). The remaining surface treatment frequencies in this study, including net (ca. 38%), fabric-marking (ca. 5%), plain (ca. 3%), and stamped (ca. 1%) most closely fit the predicted Deep Creek II frequencies. This apparent incongruity is difficult to explain but at least explanations come to mind. First, taking the percentages at face value, they could reflect a mixture of occupations that span the Early Woodland; hence no clear association with either Deep Creek I or II would be expected. Given the presence of a Middle Woodland occupation at the site, Barber Creek could have been intermittently occupied throughout the Early Woodland into the Middle Woodland. Alternatively, the Barber Creek assemblage could simply reflect a Deep Creek II phase occupation—ignoring for a moment the seemingly high frequency of cord-marked sherds. The apparent discrepancy between the cord-marked frequencies proposed by Martin (2004:5.1) and those obtained in this study could simply be the result of sampling error in Martin’s (2004:5.1) study. The sample size upon which he based his results was a small sample (n=494), hence the percentage of cord-marked sherds could have been under-represented.

This study is the first analysis of a substantial number of Deep Creek ceramics from Barber Creek. The resulting picture is that of an Early Woodland series that is the most representative of the period for the northern coastal plain of North Carolina. This study fills a void left in the typology of Phelps 1983 publication, by replacing his assertions with data. To further enhance the typology for the region some absolute dates need to be added. This can be accomplished by thermoluminescence dating of the sherds themselves as well as radiocarbon dates from associated faunal remains. Deep Creek has for some time been considered the least well-known series in the region. Future studies can now also address typology issues related to comparing series.

APPENDIX A

Deep Creek Series Definition

- Series Name: Deep Creek
- Types: Cord-Marked, Fabric-Impressed, Net-Impressed, Plain, and Simple-Stamped
- Varieties: Cord-Marked (Perpendicular Crossed and Parallel).
Fabric Impressed (Medium Weave and Fine Weave).
Net-Impressed (Square Mesh and Elongated Mesh).
Simple Stamped (Broad Land >2mm).
- Temper: Medium to Very Coarse Sand with occasionally (20%) larger elements.
- Paste: Slightly friable somewhat compact fine sandy clay.
- Temper Abundance: An average 10-20% of the paste with occasional sherds <10% and some 20-40%.
- Vessel Shape: Unknown- Inferred as restricted and straight-sided jars and bowls based on rim sherds with round bases, unknown height. Circumferences of 300-380mm based on rim portions.
- Vessel Walls: Thickness ranges from 1.45-.3cm with the majority from 8-6mm. Rims are thinner and bases are thicker.
- Rim Treatments: Notching (whole rim, interior to middle, wavy rim, alternating interior and exterior paddle edge indenting with plain middle); Simple (unmodified rounded, unmodified flat); Folded (fabric impressed continued over rim). Some have a small 1-2mm section of untreated surface just below rim treatment styles on the exterior walls.
- Method of Construction: Coil built with wrapped paddle surface treatments for wall strengthening.
- Color range: Exterior Surface: (Very Pale Brown 10YR 7/4, Reddish Yellow 5YR 6/6, Pale Yellow 2.5Y 7/3, Very Pale Brown 10YR 7/4 (5YR 6/6))
Internal Paste: (Very Pale Brown 10YR 8/4-8/3, Pale Yellow 2.5Y 7/4, Light Yellowish Brown 2.5Y 6/3 (2.5Y 5/1)(2.5Y7.4)
Interior Surface: (Very Pale Brown 10YR 8/3, Reddish Yellow 5YR 6/6, Pale Yellow 2.5Y 7/3-7/4, Grey 2.5Y 5/1, Light Brown 7.5YR 6/4)
- Range: Southern Virginia to South Carolina's Coastal Regions.
- Breakage Pattern: Breakages occur as roughly flat and at obtuse angles.
- Texture: They can be rough to somewhat smooth with varying levels of sandy feels to them.

APPENDIX B

Refit Distributions

During the analysis an attempt was made to identify sherd refits within the assemblage. This resulted in 151 refits of two or more sherds. Of these refits 15 samples exhibiting characteristics of various series and surface treatments were selected to illustrate the comingling of temporally distinct series. Refits were plotted by level to reveal where the pottery was concentrated within the site's stratigraphy (see Table B.1). Interesting changes to surface treatments should also be noted to demonstrate how refits help in identifying single vessels amongst a grouping of sherds which might otherwise be considered more than one vessel, or even a different series. Sherd groups consisting of 2 or more refit sherds sampled at 15 groups are described below in terms of counts, series and type. Their provenience information is also provided.

Group One- This rim refit includes three Indeterminate sand-tempered Plain sherds. They were recovered from two contiguous units (N447 E432 and N447 E434), in a 2 x 4 m area, from levels 1 – 3 (0 – 30 cmbs).

Group Two- This refit includes thirteen sherds and represents a reconstructed base and partial body of a Deep Creek Cord-Marked vessel. They were recovered from three contiguous units (N445 E432, N447 E432, and N447 E434), in a 3 x 3 m area, from levels 1 – 4 (0 – 40 cmbs).

Group Three- Six sherds refit to form a Hanover II Cord-Marked vessel. They were recovered from two contiguous units (N441 E432 and N443 E432), in a 2 x 3 m area, from levels 1 – 2 (0 – 20 cmbs).

Group Four- Four body sherds refit to form a Hanover I Cord-Marked vessel. They were recovered from two contiguous units (N443 E432 and N445 E432), in a 2 x 3 m area, from levels 2 – 3 (10 – 30 cmbs).

Group Five- Four body sherds refit from a Deep Creek Cord-Marked vessel. They were recovered from three contiguous units (N443 E432, N443 E434, and N445 E432), in a 2 x 3 m area, from levels 2 – 4 (10 – 40 cmbs).

Group Six- Sixteen body sherds refit from a Deep Creek Cord-Marked vessel. They were recovered from two units (N443 E432 and N447 E438), over a 6 x 8 m area, from levels 2 – 4 (10 – 40 cmbs).

Group Seven- This rim refit includes three sherds from a Deep Creek Cord-Marked vessel. They were recovered from two units (N447 E438 and N446 E442), over a 1 x 5 m area, from levels 2 – 3 (10 – 30 cmbs).

Group Eight- This rim refit includes six sherds from a Deep Creek Fabric-Imprinted vessel. They were recovered from one unit (N446 E442), in a 1 x 1 m area, from level 2 (10 – 20 cmbs).

Group Nine- Four body sherds refit from an Indeterminate sand-tempered Incised vessel. They were recovered from two contiguous units (N444 E442 and N446 E442), in a 2 x 4 m area, from levels 2 - 3 (10 – 30 cmbs).

Group Ten- Three body sherds refit from a Deep Creek Net-Imprinted vessel. They were recovered from one unit (N442 E442), in a 2 x 2 m area from level 4 (30 – 40 cm).

Group Eleven- Three body sherds refit from a Deep Creek Net-Imprinted vessel. They were recovered from one unit (N444 E442), in a 2 x 2 m area, from levels 2 – 3 (10 – 30 cmbs).

Group Twelve- This rim refit includes six sherds from a Deep Creek Cord-Marked vessel. They were recovered from one unit (N444 E442), in a 1 x 2 m area, from level 3 (20 – 30 cmbs).

Group Thirteen- Two body sherds refit from a Hamp’s Landing Net-Imprinted vessel. They were recovered from one unit (N443 E434), in a 2 x 2 m area, from level 3 (20 – 30 cmbs).

Group Fourteen- Three body sherds refit from an *Indeterminate sand-tempered Net-Imprinted* vessel. This is the vessel with soot (or possibly paint) preserved on the interior. They were recovered from one unit (N443 E434), in a 1 x 2 m area, from levels 3 – 5 (20 – 50 cmbs).

Group Fifteen- Five body sherds refit from a Deep Creek Cord-Marked vessel. They were recovered from one unit (N447 E438), in a 1 x 2 m area, from levels 2 – 3 (10 – 30 cmbs).

Table B.1 Refit Group Level Provenience

Lv.1															
Lv.2															
Lv.3															
Lv.4															
Lv.5															
Group	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

The provenience data suggests that the series discussed throughout this project are primarily concentrated in levels 2-3 (10-30cmbs) at Barber Creek. In mapping refits I found that sherd joins occurred between adjacent levels of single or contiguous units. In other words,

ceramics from the Early, Middle, and Late Woodland form a single component at the site, and therefore cannot be discerned stratigraphically.

The importance of analyzing refits is demonstrated in Tables B.2 and B.3. A single vessel formed from thirteen sherds showed a sparse to average temper abundance with larger (very coarse to pebble) sized temper particles (Table B.2). Another single vessel formed from sixteen sherds but contained a range of temper-particle size in a consistently sparsely tempered paste (Table B.3).

Table B.2 Group 2 Sherd Temper Size and Abundance

Sherd Weight (g)	55.12	55.16	15.7	11.05	54.08	42.99	25.0	8.58	13.53	39.34	18.57	2.71	8.59
Temper Size	M-C	M-C	M-G	M-G	M-VC	M-VC	M-C	M-C	M-C	M	M-VC	M	M-C
Temper Abundance	5-10%	5%	3%	3%	5%	5%	5%	5%	10%	3%	3%	3%	3%

Table B.3 Group 6 Sherd Temper Size and Abundance

Sherd Weight (g)	25.06	15.12	92.99	17.80	20.32	3.04	3.09	20.01	8.86	21.38	16.28	28.13	16.61
Temper Size	M-VC	M-VC	M-VC	M-VC	M-VC	M-VC	M-P	M-G	M-VC	M-VC	M-VC	M-VC	M-G
Temper Abundance	10-20%	10-20%	10-20%	10-20%	10-20%	10-20%	5%	3%	3%	3%	5%	3%	5%

Considering the sharing of traits between series it is important to realize that thin sectioning for petrographic and clay sourcing studies may clear up some of the confusion (Herbert 2003: 40-41). Petrographic studies conducted at another Indeterminate sand-tempered tributary site, the Maple Branch Site (31BF340) that is 10.5 kilometers East of Barber Creek suggest that Deep Creek and Mount Pleasant share the closest degree of abundances of quartz types (Lewis Berger Group 2009: Table 10.6). With this in mind it may be that separation of sherds based on temper grain size alone could result in the separation of the same series (e.g.

Mount Pleasant from Deep Creek). Grain size proved insufficient for distinguishing these series in the Fort Bragg sample of (Herbert 2003: 51) and without the use of thin section analysis grain size is likely to remain an imprecise diagnostic feature. (Herbert 2003:156).

Categorizing based on temper grain size was not practiced in this study, preferring to match paste types and temper types first. Therefore any examples provided in figures above were listed with references to visually similar examples known to this author. Sherds have been partitioned based on the best evidence from previous studies. It remains to be seen whether the series isolated in this study will match future testing of the same typology for different areas at the Barber Creek site, and other sites in the Coastal Plain regions of the Southeast.

APPENDIX C

Frequencies Compared

A presentation of sherd data for Deep Creek types based on count and weight frequencies shows that frequencies can change over 10% if they are found in levels with low sherd counts (Table C.1). The weight more accurately displays the total percentages of the physical data.

Table C.1 Surface Treatment Frequencies by Level

Level	1	2	3	4	5	6	7
Cord wt.	21.88	1099.5	2705.46	881.54	62.04	7.99	-
Cord wt.%	22.6	49.4	54.3	58.1	30.3	11.4	-
Cord #	7	120	232	87	13	2	-
Cord #%	29.2	41.1	44.5	47.0	35.1	14.3	-
Net wt.	19.65	656.25	1516.3	491.37	90.71	46.73	1.68
Net wt.%	20.3	29.5	30.4	32.4	44.3	66.8	100
Net #	5	79	175	68	15	9	1
Net #%	20.8	27.1	33.6	36.8	40.5	64.3	100
Fabric wt.	28.89	183.3	150.78	10.79	10.9	-	-
Fabric wt.%	29.8	8.2	3.0	0.7	5.3	-	-
Fabric #	4	23	17	2	1	-	-
Fabric #%	16.7	7.9	3.3	1.1	2.7	-	-
Plain wt.	-	24.02	40.96	22.4	3.99	2.18	-
Plain wt.%	-	1.1	0.8	1.5	2.0	3.1	-
Plain #	-	7	12	6	1	1	-
Plain #%	-	2.4	2.3	3.2	2.7	7.1	-
Stamp wt.	-	16.94	-	6.2	-	9.06	-
Stamp wt.%	-	0.8	-	0.4	-	13.0	-
Stamp #	-	3	-	1	-	1	-
Stamp #%	-	1.0	-	0.5	-	7.1	-
Indet wt.	26.51	247.61	569.78	105.93	37.12	3.99	-
Indet. wt.%	27.4	11.1	11.4	7.0	18.1	5.7	-
Indet. #	8	60	85	21	7	1	-
Indet. #%	33.3	20.6	16.3	11.4	18.9	7.1	-

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