Chapter 5
Ceramic Artifact Assemblages

Ceramic vessel fragments (n=13,175) constitute the second most abundant class of artifacts (other than lithic debitage) recovered during the 2010 investigations at 38YK533 (Tables 5.1, 5.2, and 5.3; Appendix F1). Most (84%) of these sherds derive from plow-disturbed contexts and cannot be specifically associated as true assemblages, yet 96% of the analyzed sherds from non-feature contexts are stylistically and technologically consistent with Late Woodland period ceramic wares associated with radiocarbon dated feature contexts that assayed ca. A.D. 1010–1160.

Ceramic sherds recovered from the Ashe Ferry site are referable to a number of historical types and series documented in the Carolina piedmont or farther afield, including Badin, Deptford, Yadkin, Cape Fear, Woodstock, and Uwharrie. The great bulk of the site assemblage comprises a newly defined Late Woodland period ware, the Ashe Ferry series (primarily one type, Ashe Ferry Simple Stamped). The Ashe Ferry series is closely comparable to Santee series wares (Anderson et al. 1982) of the South Carolina Coastal Plain, but it is defined in this study as a distinct facies of the macroregional Late Woodland period tradition of sand-tempered, simple stamped wares (see Anderson 1989, 1996:20; Anderson and Joseph 1986:246–247; Elliott and Wynn 1991; Worth 1996; Worth and Duke 1991:34). Because Ashe Ferry Simple Stamped wares constitute the overwhelming majority of ceramic artifacts deposited over a 160-year period during the most intense occupation at 38YK533, this span is designated the Ashe Ferry phase (ca. A.D. 1000–1160). Successive to the Late Woodland period Ashe Ferry phase is an early Middle Mississippian period occupation (ca. A.D. 1200–1350) distinguished by a markedly different suite of ceramic wares, designated here as the Early Brown phase (named for Mr. Early B. Brown, the long-time Catawba ferryman at Ashe Ferry).

This chapter presents a formal description of the ceramic vessel fragments collected at 38YK533 during the 2010 investigations with a primary aim toward situating the collection within the rubric of previously established regional historical types and ceramic phases. Such characterization should be particularly useful because local ceramic sequences and chronologies in the northern central Piedmont region of South Carolina are not currently well defined nor well understood (Benson 2006; Prentice and Nettles 2003; Trinkley 1990). The radiocarbon dated ceramic assemblages from 38YK533 provide reference points for initial definition of terminal Woodland period and early Middle Mississippian period occupations in the lower Catawba River Valley and their relationships to the better known sequences of the Savannah River (e.g., Anderson et al. 1990; DePratter 1979, 1990; Hally 1990; Hally and Rudolph 1986) and Wateree-Santee River valleys (e.g., Anderson 1982; Cable 2002; DePratter and Judge 1990). Consideration of these dated Ashe Ferry ceramic samples lends clarity to particular issues articulated in the 1992 conference on Indian Pottery of the Carolinas (Anderson, et al. 1996) and restated by Vanier (2010) by specifically defining the nature and chronological position of terminal Woodland ceramic assemblages in the Piedmont region and the subsequent transition to Mississippian ceramic traditions.

Characterization of the Ashe Ferry Site Ceramic Assemblage

Characterization of the ceramic assemblage recovered from 38YK533 is based upon descriptive, attribute-level analysis of individual potsherds; these attributes are primarily nominal state observations (e.g., vessel portion, temper/aplastic content, primary surface treatment,

secondary decorative treatment), in addition to sherd size (maximum diameter) and thickness measures. Covariation of these nominal attribute states is then applied to the definition or classification of sherds with reference to established historical types, where applicable, or newly defined historical types as deemed necessary. The incidence and frequency of these historical types serve as chronological keys to outlining history and intensity of site occupation at 38YK533 and provide a basis for relating Ashe Ferry site occupations to those of the surrounding region.

Ceramic Vessel Sherd Sample and Analytic Methods

As a first step in characterizing the ceramic collection, all ceramic sherds from each archaeological provenience were counted and weighed in bulk to effect gross measures of the spatial distribution and density of ceramic artifacts across the site area (Figure 4.15). After these inclusive metrics, the collection was subsampled by sorting sherds through ½" (1.3cm) mesh screen, separating the collection into "sherdlets" (those smaller than 1.55cm [.61"] diameter, the diagonal dimension of ½" screen) and sherds greater than 1.55cm diameter. Sherdlets (n=4222), which account for 32% (by count) of the ceramic sample, are frequently too small to allow accurate definition of vessel portion or surface treatment, and were not accorded further analytic scrutiny (beyond count and weight) in this study.

Table 5.1. Size distribution of ceramic sherds recovered from 38YK533.

size grade	*size range*	*n=*
0	≤1.55cm	4222
1	>1.55cm– ≤2cm	1608
2	>2cm–≤4cm	5341
3	>4cm–≤6cm	1548
4	>6cm–≤8cm	362
5	>8cm–≤10cm	71
6	>10cm–≤12cm	18
7	>12cm–≤14cm	3
8	>14cm	2
	total	13175

The remaining 8953 ceramic sherds (i.e., those greater than 1.55cm diameter) were individually characterized with respect to size grade (maximum diameter in two centimeter increments – i.e., ≤2cm, >2cm–≤4cm, etc.) (Table 5.1), thickness (graded in 2mm increments, ranging from <4mm–<12mm) (Table 5.2), aplastic content/temper (discrete nominal categories) (Table 5.3), vessel portion (i.e., rim, neck, shoulder, body, base, or combinations [e.g., rim/neck, rim/body]), vessel exterior surface treatments (discrete nominal categories), vessel interior surface finish (discrete nominal categories), and secondary decorative treatment. Rim fragments were further characterized with regard to rim form and lip form (see Appendix F1).

Table 5.2 Thickness distribution of ceramic sherds recovered from 38YK533

thickness grade	*thickness range*	*n=*
0	n/d	4263
1	≤4mm	423
2	>4mm– ≤6mm	5340
3	>6mm– ≤8mm	2828
4	>8mm– ≤10mm	267
5	>10mm	54
	total	13175

Vessel portion

Where possible, individual ceramic sherds in the 8953 sherd sample were defined as specific vessel portions (Figure 5.1) on the basis of wall curvature, thickness differential (taper), presence of lip finish, or the presence of zoned treatment. The default vessel portion assignment was body fragment (n=8265). Other observed vessel portion states include: rim fragments (n=432), rim/neck fragments (n=8), rim/neck/body fragments (n=3), rim/body fragments (n=111), neck

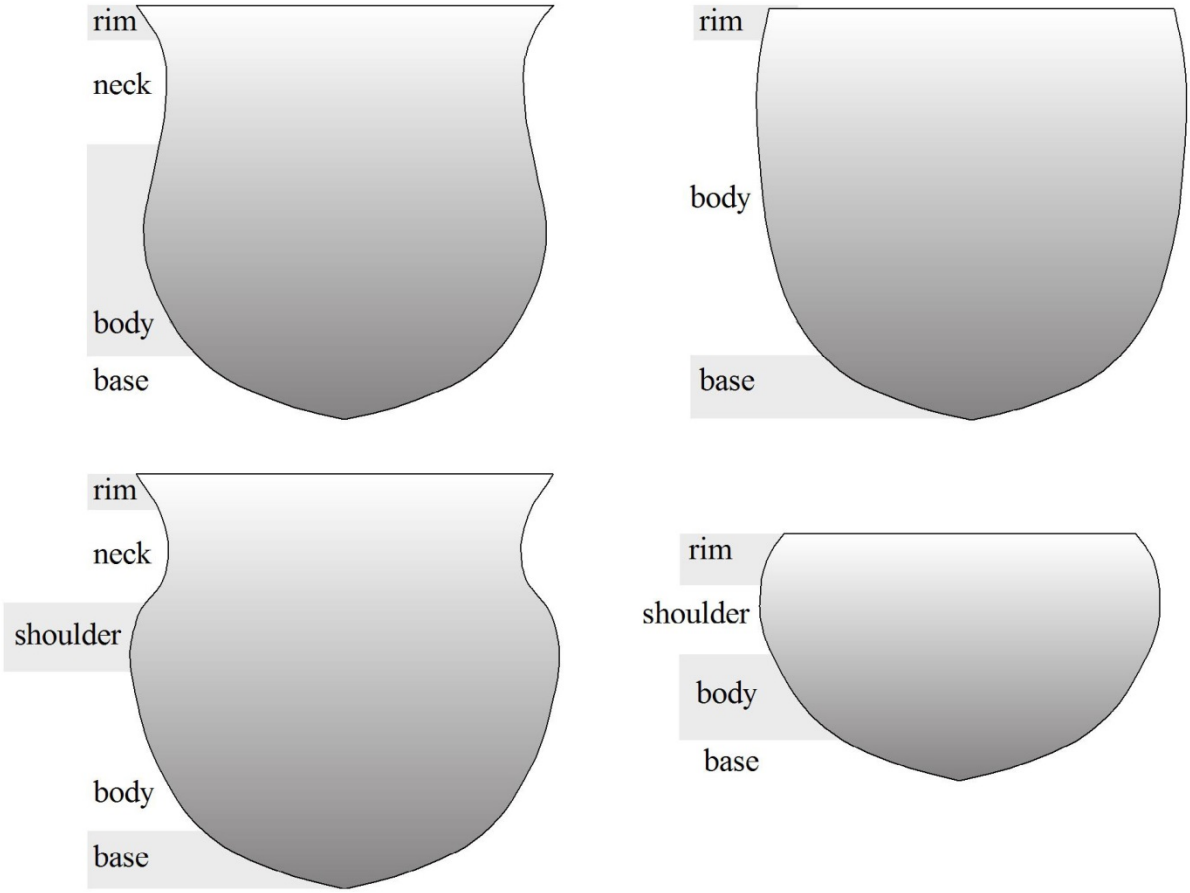

Figure5.1. Schematic of possible vessel forms indicating location/landmarks for vessel portions.

fragments (n=45), neck/body fragments (n=18), and basal fragments (n=69). It is likely that body fragments are substantially overrepresented in this scheme, at the expense of both neck and base fragments, which in small, highly fragmented states could not be differentiated on the basis of wall inflection or thickness.

Rim morphology attributes

Vessel rim fragments were further characterized with respect to horizontal morphology (simple or castellate), vertical morphology (simple or compound) (Figures

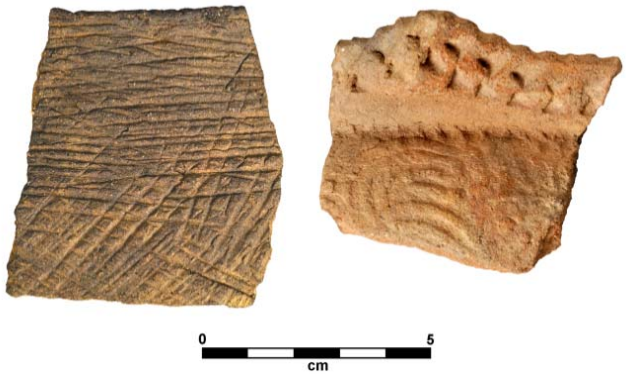

Figure 5.2. Simple (left) and thickened castellate (right) rim forms represented at 38YK533.

5.2 and 5.3), rim profile (vertical, excurvate, strongly excurvate or incurvate) (Figure 5.3), and vessel lip morphology (see Figure 5.4).

Rim type

Vessel rim forms are either simple or castellate in horizontal plane (Figure 5.2). Simple rims (n= 501) strike an approximately uniform (although frequently uneven) plane on the horizontal axis. By contrast, four castellate rims present scalloped rim edges punctuated by sculpted peaks that project above the predominant rim plane. These castellate sherds are attributed to the early Middle Mississippian period site component.

Rim morphology in vertical plane may be either simple or compound (thickened) (Figure 5.3). In simple forms (n=472), the vessel walls extend from the neck or body in even planes (usually with some thinning) to the lip termination. Compound forms, which occur exclusively on wares associated with the early Middle Mississippian period site component, are thickened by modeling or additive strips to either the rim interior (n=11) or exterior (n=22). Interior thickening effects a narrow ridge or corona that expands the rims of Mississippian bowls. Exterior thickening creates moderate to heavy collars on jar forms.

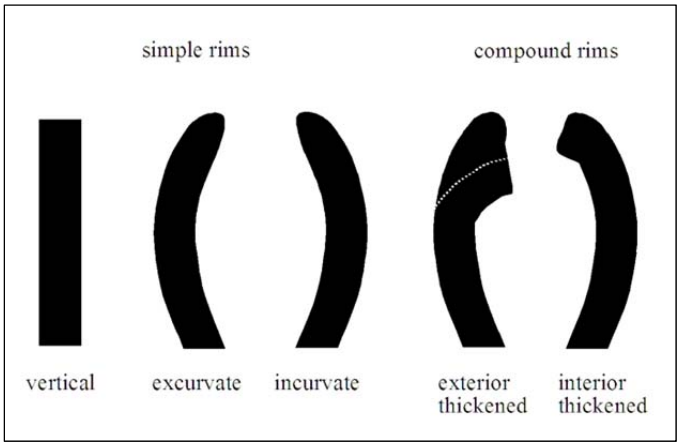

Figure 5.3. Schematic illustrating vessel rim morphologies (vertical) identified in the 38YK533 ceramic sample.

Rim profile

Rim profile, a categorical description of the deviation of the vessel rim from an absolute vertical axis, was noted for 493 rim fragments (Figure 5.3). Most rims (n=225) were defined as approximately vertical in orientation, indicative of nearly vertical walled vessels with open orifices. Another 133 rims were described as slightly everted, 42 rims are moderately everted, and 18 rims are strongly everted or flared. Most of these represent jar forms with slight to moderate neck constriction and recurvate rims, with rims that approximate maximum vessel diameter. Seventy-five rims are incurvate, with either slight orifice constriction (n=24) that occurs on high shouldered jar forms or moderate orifice constriction (n=51) that occurs on shouldered bowl forms.

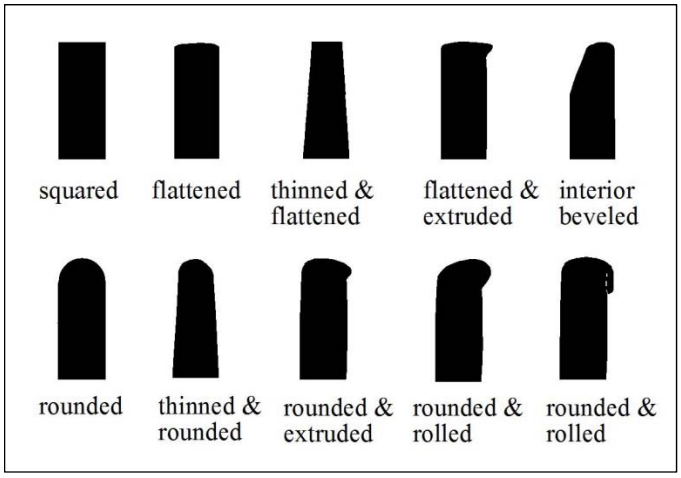

Figure 5.4. Schematic illustrating vessel lip morphologies identified in the 38YK533 ceramic sample.

Lip form

Vessel lip forms are defined and nominally categorized for 490 rim sherds. Defined forms include squared (i.e., cut) (n=2), flattened (n=117), thinned and flattened (45), flattened and extruded (n=79), rounded (n=113), thinned and

rounded (n=72), and rounded and extruded/rounded and rolled (n=62) (see Figure 5.4). Three rims also exhibit narrow folded lips.

Aplastic Content

Almost all ceramic vessel sherds from Ashe Ferry exhibit macroscopic aplastic inclusions as constituents of the clay bodies; such inclusions may represent up to 40% of sherd volume (Table 5.3). Most of these aplastic inclusions are siliceous material, predominantly quartz, with particles that range in size from fine sands (.125mm–.25mm) up to granular gravel (2mm – 4mm). While some aplastic component was probably incidental to clay sources used for pottery manufacture, variability in mixes and condition (e.g., rounded, subangular, angular) of aplastic particles likely connote intentional selection (and, in some cases, modification) of aplastic materials for addition to clay bodies to create tempering agents. The addition of such tempering materials may have aimed to improve clay workability, firing qualities, durability, or vessel

Table 5.3. Summary of aplastic content and primary exterior surface treatment observed on ceramic vessel sherds from 38YK533.

	aplastic content							
primary exterior surface treatment	fine quartz sand with subangular quartz particles	fine quartz sand	medium sand/grit	crushed quartz	grog & crushed quartz	none	n/d	totals
simple stamped	4007	350	113	145				4615
complicated stamped	124	6	15					145
linear stamped (indet.)	105	22	6	1				134
check stamped	57	5	1					63
stamped (indet.)	988	80	15	12				1095
plain	619	109	38	4		1		771
n/d (thickened rim)	8		3					11
plain (burnished)	39	22	58	1				120
plain (rough)	94	2	9	1	16			122
smoothed	4							4
smoothed (obliterated)	390	81	8	11				490
fabric impressed	289	5		17				311
cordmarked	63	3	1	2				69
cob marked	1							1
cord-wrapped paddle stamped					1			1
indet./eroded/spalled	869	97	20	18				1004
sherdlets (<1.55cm)							4219	4219
totals	7657	782	287	212	17	1	4219	**13175**

function; particular clay body formulas were likely specific to both source clays and to cultural traditions or "communities of potters." In a broad sense, temporal variation in clay formulas and aplastic materials tends to distinguish the wares associated with Middle Woodland, Late Woodland, and Mississippian period occupations at Ashe Ferry, but because various mixes of siliceous materials to intergrade, no particular temper variety appears to be exclusively definitive of temporal ware groups, and the diagnostic value of temper categories alone appears limited.

Categories of aplastic content observed in ceramic vessel sherds from Ashe Ferry may be broadly characterized (in order of abundance) as fine quartz sand with larger angular/subangular quartz particles fine quartz sand crushed quartz mixed medium sand/grit and grog mixed with crushed quartz (Figure 5.5).

Figure 5.5. Sherd edge views illustrating aplastic/temper states observed in 38YK533 ceramic sherds: a. fine quartz sand with angular/subangular quartz particle inclusions; b. fine quartz sand; c. grog and crushed quartz; d. crushed quartz; e. medium/coarse sand (grit).

Fine Quartz Sand (with angular/subangular quartz particles) (n=7657) (Figure 5.5a)

The most common aplastic constituents in ceramic sherds at Ashe Ferry are fine (.125mm–.25mm) quartz sands with sparse to abundant inclusions of larger subangular quartz particles (i.e., coarse [.5mm–1mm and very coarse [1mm–2mm] quartz sand) (Figure 5.5). Point counts of aplastic particles evident in broken edges of a sample of sherds that include sand with subangular quartz particles indicate moderately dense (25%–36%) sand content, with very fine to fine sands (<.25mm) constituting 30%–70% of particles, medium sand (<.5mm) contributing 25%–50%, coarse sand (<1mm) representing 2%–20%, and larger particles typically represented at less than 5%. These sand mixtures are likely the result of the manual (or sieve) separation of moderately sorted alluvial sands and gravels. In a few instances, fine sand appears mixed with coarse angular quartz granules, which is interpreted as the product of manual crushing and active introduction into the temper formula. In other cases (n=30 sherds), the fine sand constituent appears mixed with larger rounded quartz particles; these may be the residues of incomplete sorting. Some sherds (n=138) exhibit slight admixture of non–quartz particles (primarily feldspar and biotite) with quartz particles in the larger grain constituent of the sand mix; these are likely minor inclusions in the alluvial deposit sources.

Fine sand with larger angular/subangular quartz particles was noted in 7758 sherds, approximately 85% of analyzed specimens. Most of these sherds are attributed to the Late Woodland period Ashe Ferry series, but some sherds tempered with fine sand mixed with crushed quartz are more clearly referable to the Middle Woodland period Yadkin ceramic series. AMS dates associated with Ashe Ferry series wares tempered with sand with angular/subangular quartz particles range from ca. A.D. 1010 to AD 1160 (calibrated intercepts).

Fine Quartz Sand (n=782) (Figure 5.5b)

Well-sorted fine (.125mm–.25mm) to medium (.25mm–.50mm) quartz sand is the second most common aplastic/temper state observed on ceramic sherds at Ashe Ferry. Sand density ranges from 24% – 31% of volume of sherd bodies, and sherd texture is often notably sandy to the touch. Grain sizes tend toward fine sand (30%–70%) with a few sherds exhibiting greater constituents of medium sand (24%–47%) and occasional larger coarse sand inclusions. Three sherds exhibit predominant fine sand content with sparse subspherical solution voids indicating probable former calcareous content, such as marl. Most surface treatments and rim forms observed on fine sand-tempered wares correspond to Late Woodland period Ashe Ferry phase wares, but later Mississippian wares also exhibit well-sorted sand temper.

Crushed Quartz (n=212) (Figure 5.5d)

Angular medium (.25mm–.5mm) to very coarse (1mm–2mm) quartz fragments are the predominant aplastic contents observed on 166 sherds in the Ashe Ferry sample. These angular quartz fragments are interpreted as products of manual crushing, size sorting, and active introduction into the temper formula. Most crushed quartz tempered sherds also exhibit an appreciable fine sand component. Most crushed quartz tempered sherds recovered from the Ashe Ferry site are referable to Late Woodland period Ashe Ferry phase component, but crushed quartz aplastic content also characterizes Yadkin series and Uwharrie series wares at Ashe Ferry.

Medium/Coarse Sand (grit) (n=287) (Figure 5.5e)

A total of 286 sherds exhibit medium (.25mm – .5mm) to coarse (.5mm – 1mm) subangular to angular sand particles in densities ranging from 15% to 32%. Particle sizes are mixed, with 27%–57% fine sand (by count), 25%–57% medium sand, 10%–41% coarse sand, and less than 7% (by count) of particles larger than 1mm. Sand particles are predominantly quartz, but many medium/coarse sand tempered sherds exhibit admixtures including feldspar, manganese, and schist. Most aplastic particles are subangular, indicating selection of sands from probable alluvial sources and size sorting of particles without further modification (i.e., crushing). The rock mixtures evident in medium mixed sand indicate different sources from the sand with subangular quartz mixes predominant at Ashe Ferry, and may reflect procurement from local creek mouth deposits that are not completely dominated by the heavy quartz load of Catawba River sands. Half of the medium sand tempered sherds are attributed to vessels associated with the Mississippian period Early Brown phase site occupations; 114 medium sand tempered sherds are otherwise consistent with the Late Woodland period Ashe Ferry Simple Stamped. AMS dates directly associated with medium sand temper/grit tempered wares at Ashe Ferry are A.D. 1210, 1270, and 1300 (calibrated intercepts).

Grog and Crushed Quartz (n=17) (Figure 5.5c)

Seventeen sherds exhibit crushed angular fragments of fired clay or grog as the primary temper component, with crushed quartz particles as secondary constituents. All appear to derive from a single exotic (Midwestern?) Middle Woodland period plain surfaced vessel with zoned, cordwrapped stick decoration above the shoulder (see Figure 5.13). Grog fragments range up to 2.5mm in diameter, and aplastic elements constitute more than 30% of the sherd bodies.

Temperless (n=1)

One small burnished plain sherd exhibits a fine, temperless body, and appears most consistent with post-1760 Catawba Indian colonoware (Riggs 2010) found in the immediate area. Because 38YK533 yielded no other evidence for late 18th–early 19th century site occupation, it is suspected that this sherd represents an accidental intermingling of materials from 38YK534, a nearby Federal Period Catawba village investigated concurrently with 38YK533.

Exterior Primary Surface Treatments

All ceramic vessel fragments with intact (i.e., not eroded or spalled) exterior surfaces exhibit extensive surface finishes that were either purposely effected or which represent *de facto* traces of the manufacturing process. Primary surface finishes are defined on 7951 sherds (88.8% of the analyzed sample) and include simple stamped, complicated stamped, check stamped, fabric impressed, cordmarked, plain, burnished plain, and cobmarked treatments (defined as follows). These nominal state surface treatments, when considered in conjunction with aplastic content of sherds, constitute the principal criteria used for the definition of historical types.

Simple Stamped (n=4615) (Figure 5.6)

Almost 58% of the analyzed sherds that exhibit definable (i.e., not obliterated or eroded/spalled) exterior surface treatments appear simple stamped, with parallel arrays of impressed longitudinal grooves (often overstamped), typically applied at oblique angles to the vessel rim. In addition, most of the 1228 sherds with surfaces defined as linear stamped indeterminate or stamped (indeterminate) may represent small fragments of simple stamped vessels; inclusion of these with the simple stamped wares accounts for 74% of the analyzed sherd sample.

Two general modes of simple stamping are evident in the Ashe Ferry sample; narrow (.5mm–1mm) "U"-shaped grooves that appear to be impressions of round strings wrapped in rough parallel fashion around a stamp paddle, and wider (1mm–3mm) subrectangular grooves that appear to be impressions of flat straps, also wrapped in parallel around a stamp paddle. The media used to effect these simple stamped impressions are not obvious. The clearest impressions of round "strings" exhibit linear striations that appear slightly twisted (perhaps as a function of wrapping around a paddle), but are not conventionally twisted composite fiber cordage. One possible medium might be finely split and lightly twisted tree inner bark or secondary phloem. The "strap" or "thong" impressions appear to represent uniformly sized strips of pliable material evenly wrapped around a stamp paddle, with no evidence of overwrapping; these may reflect use of broader, thicker straps of inner bark. However, some instances of the wider, subrectangular groove category appear to represent impressions of carved wooden stamp paddles, and at least one sherd evinces a stamp pattern of parallel lines connected by terminal loops. All of the simple

Figure 5.6. Ashe Ferry Simple Stamped rim sherds from 38YK533.

stamped sherds recovered at Ashe Ferry are attributed to Late Woodland period occupations, and constitute the ubiquitous Ashe Ferry Simple Stamped type found in most site contexts.

Plain (n=1024) (Figure 5.7)

Plain exterior finishes are evident on 1024 sherds from Ashe Ferry, and constitute approximately 14% of the analyzed sample. Plain finishes are defined as those surfaces that are completely smoothed by wiping or rubbing, which obliterated evidence of modeling or paddling transferred in the manufacturing process. Three modes of plain surfaces are discriminated in the sample: (1) plain (matte) finishes (n=782), in which smoothing aligned clay and aplastic materials into a uniform surface; (2) burnished plain finishes (n=120), in which rubbing or polishing of leather-hard clays produced floated surfaces with slightly to moderately reflective (i.e., shiny) finishes (often with remnant burnishing facets); and (3) rough or coarse plain finishes (n=122), in which rewetting and wiping

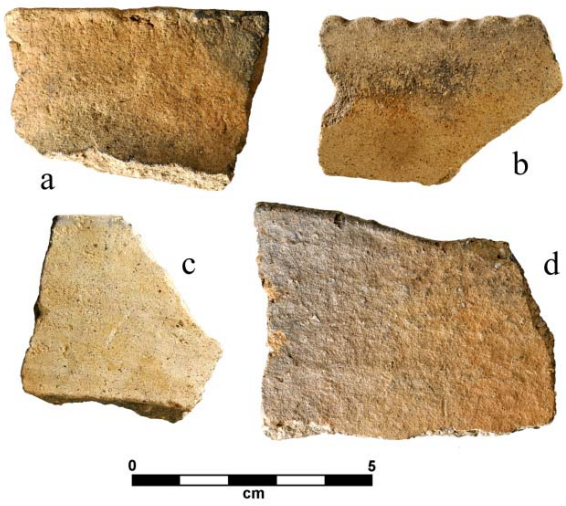

Figure 5.7. Plain wares from the Ashe Ferry site. a-b. plain sherds; c. burnished plain sherd; d. rough plain sherd.

of the surface produced a pebbly surface with slight extrusion of temper particles. Burnished plain and rough plain surface finishes occur primarily (and as dominant treatments) on Mississippian wares; plain surfaces are common on the Late Woodland wares as well as the Mississippian wares.

Smoothed (n=490)

In addition to plain sherds, another 490 sherds exhibit incompletely smoothed surfaces that reveal indistinct (and undefinable) traces of prior surface states. Most of these sherds probably represent obliterated or oversmoothed areas of textured surface vessels. The paste characteristics of most smoothed sherds are consistent with the Late Woodland period Ashe Ferry wares, and smoothed surface sherds account for 13% of sherds recovered from Ashe Ferry phase feature contexts.

Stamped Indeterminate (n=1095)

Stamped [form indeterminate] sherds (n=1095) exhibit partially obliterated surfaces with indistinct traces of prior stamping with carved or wrapped paddles. In a few instances, stamped indeterminate sherds can be attributed to defined vessels, including simple stamped, complicated stamped, and check stamped vessels.

Figure 5.8. Fabric impressed wares from the Ashe Ferry site. left: Yadkin Fabric Impressed sherd; right: Cape Fear Fabric Impressed sherd.

Fabric Impressed (n=311) (Figure 5.8)

Fabric impressed surfaces account for 3.86% of the distinguishable sherd analyzed sherd sample. Two distinct modes of fabric impression are represented in the site collection. Large (cordage) element coarse wicker-like fabric impressions are distinctive of Early Woodland period Badin wares (Coe 1964:27–29) and Middle Woodland period Yadkin series wares (Coe 1964:30–32). Smaller element weaves are distinguished on Late Woodland Cape Fear (*sensu* Anderson et al. 1982; Cable 1992) and Uwharrie series (Coe 1952:307–308; Eastman 1996) wares. Half of the fabric marked sherds recovered in the 2010 investigations at Ashe Ferry are attributable to a single Cape Fear Fabric Impressed vessel, most consistent with the latest Cape Fear wares (Anderson et al. 1982) that Cable and Cantley (1998) characterize as Cape Fear III.

Cordmarked (n=69) (Figure 5.9)

Sherds that exhibit parallel impressions of twisted fiber cordage constitute less than 1% of the analyzed assemblage. Most of these sherds evince narrow (<.5mm) impressed grooves of z-twist cordage wrapped closely and evenly over a paddle surface. Most cordmarked sherds appear closely comparable to the Late Woodland period Ashe Ferry Simple Stamped

Figure 5.9. Cord marked sherds from the Ashe Ferry site.

wares in terms of clay selection, aplastic content, and paste preparation, and the incidence of cordmarked sherds in Ashe Ferry phase feature contexts indicates probable contemporaneity with the Ashe Ferry phase component.

Complicated Stamped (n=145) (Figure 5.10)

Complicated stamped sherd surfaces are distinguished by impressed lands and grooves that intersect to constitute multilinear composite geometric motifs. These patterns were effected by application of carved wooden stamp paddles. Complicated stamped wares include Late Woodland period Woodstock Complicated Stamped (n=56), and early Middle Mississippian period Early Brown Complicated Stamped (n=85) (defined herein). Sherds that exhibit curved lands and grooves are defined as curvilinear complicated stamped (n=91), even in the absence of obvious line intersections. Sherds that evince straight lands and grooves with angular intersections, and which lack curving elements, are defined as rectilinear complicated stamped (n=25). Sherds that exhibit line element intersections, but which are too small to accurately identify curvature of line elements, are considered as complicated stamped (form indeterminate) (n=19). In addition, 28 linear stamped (form indeterminate) sherds can be attributed to defined complicated stamped vessels.

Figure 5.10. Complicated stamped wares from the Ashe Ferry site. a. Woodstock Complicated Stamped sherd; b-d. Early Brown Complicated Stamped sherds.

Check Stamped (n=63) (Figure 5.11)

Check stamped wares exhibit a regular grid pattern of impressed square or rectangular cells divided by narrow lands, a pattern applied with wooden paddles carved with crosshatched lines. Two modes—simple check stamped and linear check stamped—are represented in the assemblage. Simple check stamped sherds evince patterns of equilateral cells divided by lands of equal weight and depth. These include 11 sherds from a single Deptford Check Stamped vessel (Feature 58) (Figure 5.11a), as well as fragments from a single sand tempered vessel with an unusually large pattern of 10mm cells divided by 3mm lands. Linear check stamped sherds exhibit a pattern of rectangular cells divided by lands of greater weight and depth on one axis than the opposing axis. This pattern is characteristic of an early Middle Mississippian period ware

Figure 5.11. Check stamped wares from the Ashe Ferry site. a. Deptford Stamped sherds; b-c. Twelve Mile Check Stamped sherds.

defined here as Twelve Mile Check Stamped (Figure 5.11b). Associated radiocarbon dates indicate a thirteenth century temporal position for Twelve Mile Check Stamped wares, indicating contemporaneity with the more widely documented Savannah Check Stamped type.

Cobmarked (n=1) (Figure 5.12)

A single basal sherd of a probable miniature jar exhibits distinctive deep maize cob cupule impressions. Cobmarked treatments appear as diagnostic minority surface finishes in early Mississippian and early Middle Mississippian assemblages documented in the upper and middle Savannah River basin (Hally 1990; Hally and Rudolf 1986; Whitley 2012), and the incidence of cobmarked wares at 38YK533 is consistent with the early Middle Mississippian Early Brown phase component.

Figure 5.12. Cobmarked sherd recovered from plowzone at 38YK533.

Cord Wrapped Dowel Stamped (n=1) (Figure 5.13)

A single sherd exhibits cord wrapped dowel impressions as part of the zoned treatments (in combination with rough plain) evident on a unique grog and crushed quartz tempered vessel recovered from plowzone contexts on the terrace crest. This vessel appears to be of nonlocal origin, and may be comparable to late Middle Woodland period wares documented in southern Illinois (Caldwell-Rohm 2008). The stamped pattern on the vessel neck consists of parallel, 2.5mm-wide grooves that are composites of impressions of cordage wrapped tightly around a narrow dowel or paddle edge with grooves evenly spaced at 4.7mm intervals.

Secondary Decorative Treatments

In addition to the broadly applied surface finishes, 219 sherds (primarily rims) also exhibit secondary decorative treatments (Table 5.4; Figure 5.18). These secondary manipulations can be characterized as intrusive treatments, such as incision, punctation, or notching or modeled manipulations that raise or expand the vessel surface, such as nodes and lugs.

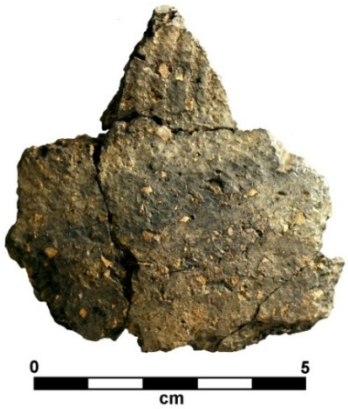

Figure 5.13. Cord wrapped dowel stamped sherd recovered from plowzone at 38YK533.

Notched (n=133) (Figure 5.18)

The most common secondary treatment in the Ashe Ferry ceramic collection is notching of vessel rims or lips. Notching can be broadly dichotomized as narrow (<2mm) V-shaped notches or broad (2mm–4.5mm) U-shaped notches. Broad U-shaped notches are evident on 53 sherds; these exhibit impressions of smooth cylindrical styluses or rods with diameters that range from 2mm up to 4.5mm (x=3.35). These cylindrical stylus impressions occur exclusively on Mississippian period ceramics, and are a hallmark attribute of the Early Brown phase (ca. A.D. 1200–1300). Narrow, V-shaped notching (n=79) is the primary decorative treatment applied to lips of Late Woodland period Ashe Ferry Simple Stamped rims.

Table 5.4. Secondary decorative treatments observed on 38YK533 sherds.

	lip treatment						
secondary decorative treatment	incised	noded	notched	plain	punctate	n/a	totals
notched lip			112				112
notched rim (interior)			4				4
punctate			8	19	1	22	50
punctate; incised				1	1	7	9
punctate; noded			1	1			2
incised	2		2	9		21	34
incised; noded			1				1
node		2	3	1			6
lug			1	1			2
							219

Punctate (n=61) (Figure 5.14c-e)

Sixty-one sherds exhibit one or more intrusive punctations applied as zoned decorative treatments on vessel rims, necks, or shoulders. Two modes of punctation, those effected with a square or rectangular stylus (n=33) and those effected with a circular or cylindrical stylus (n= 23), predominate. Square/rectangular stylus punctations occur on Ashe Ferry Simple Stamped and Twelve Mile Check Stamped sherds, and include triangular punctations effected with the stylus corner. Circular or cylindrical punctations occur primarily on early Middle Mississippian period wares, particularly elaborated rims associated with Early Brown Complicated Stamped wares. The diameter of these circular/cylindrical punctations closely parallels that of cylindrical stylus notches (with which they frequently co-occur); both appear to have been effected with the same class of tool. Circular/cylindrical punctations documented in the 38YK533 collection are consistent with specimens that Whyte et al. (2011) specifically correlated with use of large bird quill styluses.

Incised (n=43) (Figure 5.14f-i)

Forty-three ceramic sherds exhibit incised decorations consisting of scribed lines etched into green clay bodies with pointed or squared styluses. In most instances (n=32), incision is relatively narrow (<1.5mm) and deep, and is typically executed over plain fields. Such fineline incision is present on both Late Woodland period and Mississippian period wares. The other mode of incision consists of relatively wide (2.5mm–3.5mm) lines that are square or triangular in profile, and which appear to have been scribed with the tip or corner of a square stylus. This broadline form resembles the Camden Incised (Stuart 1975) type, a presumed Late Woodland period ware documented in the Wateree River Valley.

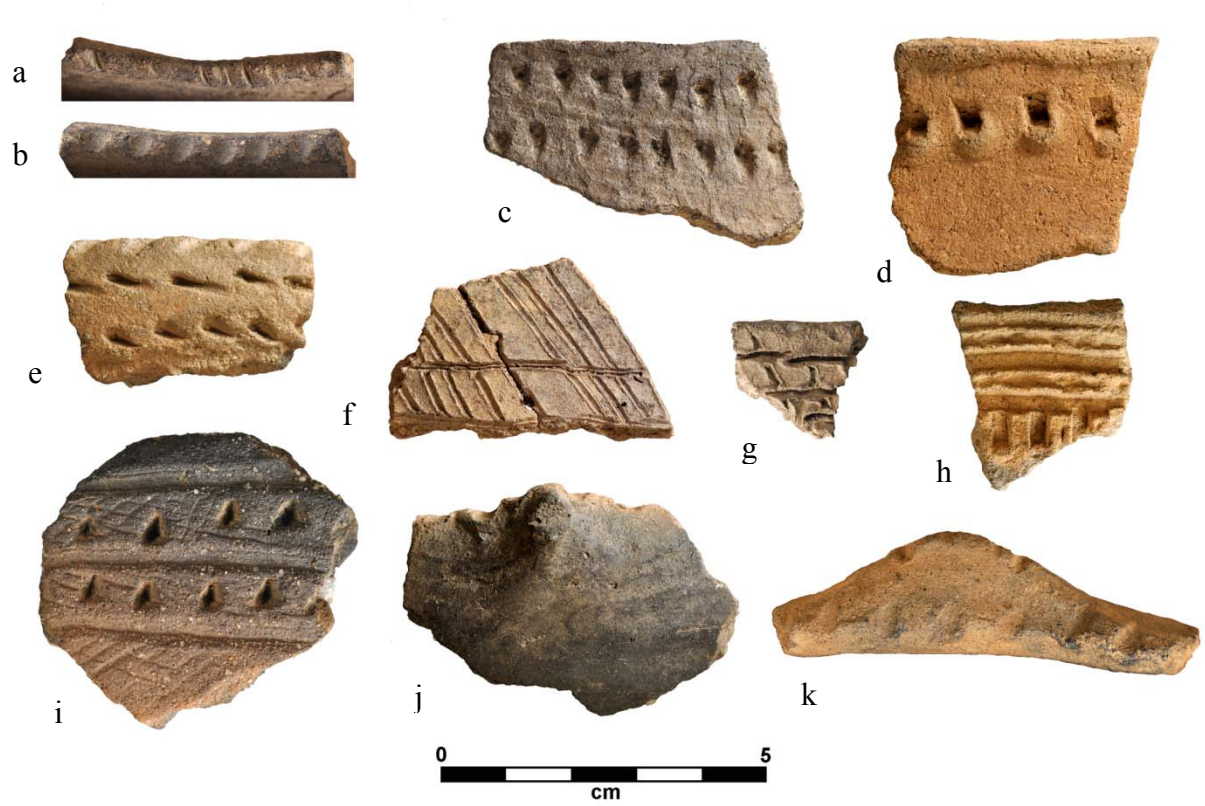

Figure 5.14. Secondary decorative treatments. a. V-shaped rim/lip notching on Ashe Ferry Simple Stamped sherd; b.; U-shaped rim/lip notching; c-e. punctate; f., g. fine line incised; h. broad line incised; i. punctate and incised; j. modeled node on burnished sherd; k. lug (top edge view of rim).

Noded (n=9) (Figure 5.14j)

Nine rim sherds exhibit modeled nodes that range in prominence from subtle expansions of vessel lips to a possible reworked loop handle attachment. Eight of these noded sherds are attributable to early Middle Mississippian period vessels; four are thickened loci on rim castellations.

Lug (n=2) (Figure 5.14k)

Two Mississippian Plain bowl rims are elaborated with attenuated lugs. These low lugs probably functioned poorly as handles, but may instead denote particular aesthetic landmarks along vessel rims.

Ceramic Typology at 38YK533

Most ceramic vessel fragments recovered from the Ashe Ferry site are referable to a number of established or newly defined historical types that describe the repeated and consistent co-occurrence of particular suites of attributes (e.g., temper/aplastic content, primary surface treatment, secondary decorative treatment) that exhibit tendencies to covary in time and space. Categorization of these suites of attributes as historical types is particularly useful as a means to

facilitate consistency and comparability with previously documented ceramic assemblages from the region.

Ashe Ferry Simple Stamped (n=4615) (Figures 5.6, 5.15 and 5.16)

Simple stamped, sand tempered wares account for more than half of the analyzed ceramic sherd sample recovered from the Ashe Ferry site. Although these sherds exhibit considerable variation in stamping and paste composition, the sand tempered simple stamped wares appear to have been deposited over a relatively brief span (ca. A.D. 1000–1160, as determined by eight AMS assays of associated materials) and can be characterized as representative of a newly defined historical type, designated Ashe Ferry Simple Stamped**.** These wares appear closely comparable, but not identical, to contemporaneous Santee Simple Stamped wares (Anderson 1982; Cable 2013) defined in the lower Santee River basin of the South Carolina coastal plain. Ashe Ferry Simple Stamped wares tend to exhibit more compact paste than Anderson's Santee Simple Stamped sample, and are distinguished by the prevalence of notched (rather than simple stamped) lip treatments, and the virtual absence of interior simple stamping near the rims (as noted in the Matassee Lake Santee Simple Stamped sample).

Figure 5.15. Ashe Ferry Simple Stamped sherds recovered from Feature 50, AMS cCal. A.D. 1020 (intercept); 2σ Cal. A.D. 990–A.D. 1040 and A.D. 1100–A.D. 1120.

Other comparable, contemporaneous ceramic wares include Savannah Creek Simple Stamped (Oliver 1992) in south central North Carolina and Vining Simple Stamped (Elliott and Wynn 1991; Kelly 1938) in central Georgia. Camden Simple Stamped wares (Stuart 1975) from the Guernsey Cut-Off site (71km south of 38YK533) and McClellanville Simple Stamped (Trinkley 1981) ceramics from the South Carolina northeastern coastal plain are also generally comparable, but their temporal placement is not well understood. Vanier (2010) reports simple stamped wares as part of presumed Late Woodland

Figure 5.16. Ashe Ferry Simple Stamped rim profiles. Exterior oriented to left. Vertical orientation determined by reconciliation of lip plane vessel wall curvature to achieve horizontal plane.

period ceramic collections at Concrete Block, V. Green, Richardson, and Belmont Neck sites near Camden, SC, but a temporal framework for these wares is not established.

Attributes

Surface treatment and secondary decorative treatments: Ashe Ferry Simple Stamped wares exhibit paddle-applied linear impressed surface treatments, with both narrow (.5mm–1mm) "U" or "V' shaped grooves (73%) and wider (1mm–3mm) subrectangular grooves (27%) represented. No temporal pattern in the incidence of narrow versus wide stamped elements (as gauged by occurrence in dated contexts) was noted. Stamping is typically applied at oblique angles to the rim plane, although necks and rims occasionally exhibit stamping parallel to rim planes to create zoned patterns. Overstamping is common, especially in the narrow grooved variety. Simple stamping is applied to 12.6% of vessel lips, but only one sherd exhibits rim interior stamping. These lip treatments contrast with the Mattassee Lake Santee Simple Stamped wares, in which 78% of vessel lips are stamped, and 10.6% of rims exhibit interior stamping (Anderson 1982:307). Secondary decorative treatments are uncommon on Ashe Ferry Simple Stamped, but include lip notching (with narrow, edged stylus) on 20.5% of vessel rims, fineline incision on 5.75% of rims, and square-stylus punctation on 1% of rims.

Aplastic content and paste characteristics: Most (i.e., 87%) Ashe Ferry Simple Stamped sherds contain relatively dense (25%–35%) amounts of fine quartz sand with sparse to dense admixtures of larger subangular quartz particles (1mm–3mm). Well sorted fine quartz sand predominates in approximately 7.6% of Ashe Ferry Simple Stamped sherds, while crushed angular quartz fragments are evident in 3% of simple stamped sherds. Mixed medium to coarse sand is the primary aplastic constituent in 2.5% of analyzed Ashe Ferry Simple Stamped sherds. Sherd bodies are relatively hard, dense and well-compacted, yet high sand content renders fragments subject to particulate exfoliation. Body colors range from red (2.5YR 5/6) to dark grayish brown (10YR 4/2); most sherds are brownish yellow to yellowish brown (10YR 5/4–10YR 6/6) with uniform cores, indicating even firing of moderately iron-rich clays in oxidizing environments.

Vessel forms: The most prevalent Ashe Ferry Simple Stamped vessel forms are restricted jars with inslanting rims (no neck constriction) and moderately constricted orifices and rounded bases. Less common are vertical jars with unrestricted orifices and jars with gently constricted necks and slightly everted rims. Both open hemispherical bowls, and restricted bowls occur, but true carination is not present. Vessel rims are simple; no compound forms (e.g., collars, thickening strips) or sculpturing (e.g., castellation) are noted. Vessel lips tend to be flattened, and often exhibit mild exterior extrusion and occasional interior beveling. Vessel walls are well thinned, with 66% measuring <6mm, and 31% measuring >6mm<8mm. Coil fractures are uncommon.

Notes: An additional 1150 sherds that exhibit linear stamped (n=101) or indeterminate stamped (n=1049) surfaces and body compositions and colors consistent with Ashe Ferry Simple Stamped wares likely represent fragments of Ashe Ferry Simple Stamped vessels.

Ashe Ferry Plain/Smoothed [provisional] (n=1156)

Plain (n=743) or smoothed (n=413) surfaced sherds with body compositions similar to Ashe Ferry Simple Stamped wares are provisionally categorized as Ashe Ferry Plain/Smoothed. Most of these sherds are probably attributable to partially or completely smoothed portions of Ashe Ferry Simple Stamped vessels, as indicated by refitted vessel sections including both simple stamped and plain/smoothed sherds. A marked underrepresentation of fine sand tempered plain rims in the sample bolsters this interpretation. However, plain rims (n=27) exhibit a higher rate (37%) of secondary decorative treatment (i.e., punctation, incision) as compared to simple stamped rims (n=317; 26% decorated); these may reflect plain rim fields for secondary decorative treatments applied to simple stamped vessels.

Ashe Ferry Cordmarked [provisional] (n=67) (Figure 5.13)

Sixty-seven sand tempered cordmarked sherds are provisionally attributed to the Ashe Ferry series on the basis of similarity to Ashe Ferry Simple Stamped wares in terms of body composition and interior finish. These sherds evince paddle application of typically fine (.9 mm–1.6 mm) s-twist or z-twist cordage is present (with z-twist predominating). Incidence of sand tempered cordmarked sherds in Features 11, 28, 35, 40 and 52 also indicates probable Ashe Ferry phase associations. Radiocarbon dates obtained from three of these feature contexts attest a range ca. A.D. 1010–1160.

Cape Fear Fabric Impressed (n=184) (Figures 5.17 and 5.18)

Fine sand tempered fabric impressed sherds recovered from 38YK533 conform to the Cape Fear Fabric Impressed type (South 1976:18–20; Cable 1993), a ware generally attributed to the late Middle Woodland period in the Carolinas. Anderson 1982 reports six radiocarbon dates for Cape Fear Fabric Impressed wares at the Mattassee Lake sites, with corrected dates ranging from A.D. 570 to A.D. 730. Eastman (1994a:21) reports a calibrated date of A.D. 1028 (2σ A.D. 821–1282) for Cape Fear Fabric Impressed wares at the McLean Mound (Cumberland County, NC). This relatively late assay corresponds to the earliest Ashe Ferry contexts dated at 38YK533. Cape Fear Fabric Impressed sherds were recovered in association with Ashe Ferry Simple Stamped sherds in Feature 22, which indicate Cape Fear Fabric Impressed wares as elements of the early Ashe Ferry phase occupation.

Attributes

Figure 5.17. Edge view of Cape Fear Fabric Impressed sherd illustrating aplastic content.

Surface treatment and secondary decorative treatments: Cape Fear Fabric Impressed wares exhibit paddle-applied fabric impressed surface treatments oriented at oblique angles to the rim plane. The fabric impression is carefully applied, and appears to swirl around the vessel from base to rim. Of five Cape Fear Fabric impressed rims, two are plain, two are notched with narrow, edged stylus, and one is fabric impressed.

Aplastic content and paste: Cape Fear Fabric Impressed sherds exhibit relatively high densities (20%–25%) of fine to medium (.06mm–.48mm) quartz sand with sparse admixtures of larger subangular quartz particles (1mm–3mm). The paste also includes sparse, very fine mica

Figure 5.18. Reconstructed Cape Fear Fabric Impressed vessel from 38YK533.

flecks. Sherd bodies are relatively hard, dense, and well-compacted, with body colors that range from brown (7.5YR 5/4) to dark grayish brown (10YR 4/2); most sherds are brown (7.5YR 5/4) or yellowish brown (10YR 5/4) with uniform cores.

Vessel form: The only Cape Fear Fabric Impressed vessel form observed in the 38YK533 collection is an open, conoidal jar (Figure 5.18) that measures 33 cm tall, with an orifice

diameter of 32cm. This vessel exhibits a simple rim with a simple squared, slightly extruded lip finish. Other rims indicate at least three vessels are represented in the collection. Vessel walls are notably thin and uniform, ranging from 3.8mm–5.8mm in the reconstructed vessel section.

Uwharrie Fabric Impressed (n=63) (Figures 5.19 and 5.20)

Fine weft fabric impressed sherds with heavily scraped or combed interiors are categorized as Uwharrie Fabric Impressed (Coe 1952:307–308, 1964:32–33; Eastman 1994, 1996), a Late Woodland period ceramic type most commonly associated with the North Carolina piedmont region. Although fabric impressions are similar to those evident on Cape Fear Fabric Impressed, Uwharrie Fabric Impressed sherds are distinguished by coarser temper, thicker bodies, and combed or scraped interiors.

The majority (n=55; 90%) of Uwharrie Fabric Impressed sherds are attributable to a single vessel recovered from plowzone contexts above and around Feature 22. The spatial distribution of Uwharrie Fabric Impressed sherds at 38YK533 closely corresponds to that of Cape Fear Fabric Impressed sherds; both types appear associated with a small, early Ashe Ferry phase component located near the northern edge of the site.

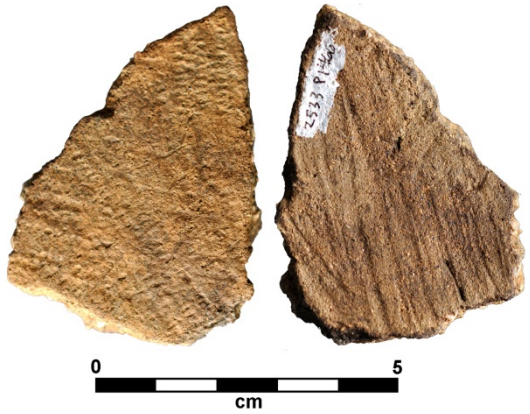

Figure 5.19. Uwharrie Fabric Impressed sherd (obverse and reverse views) from 38YK533.

Radiocarbon assays associated with Uwharrie series wares span nearly one thousand years, but Eastman (1994a) suggests a core cluster of dates, ca. A.D. 1000–1200, as the most likely range for these wares. This temporal range corresponds closely to Ashe Ferry phase dates associated with Ashe Ferry Simple Stamped pottery, but the constrained spatial distribution of Uwharrie Fabric Impressed wares (and the absence of Uwharrie Cordmarked and Uwharrie Net Impressed wares) at 38YK533 suggests only limited contemporaneity with Ashe Ferry phase occupations.

Attributes

Surface treatment and secondary decorative treatments: Uwharrie Fabric Impressed wares exhibit paddle-applied fine weft fabric impressed surface treatments that appear somewhat randomly oriented. Most sherds exhibit oversmoothing that partially obliterates the fabric impressions, and one sherd evinces simple stamped impressions overstamped with fabric. Three Uwharrie Fabric Impressed rims exhibit plain lip finishes; two are fabric impressed. Vessel interiors are uniformly combed or scraped, with no subsequent smoothing.

Figure 5.20. Edge view of Uwharrie Fabric Impressed sherd illustrating aplastic content.

Aplastic content and paste: Uwharrie Fabric Impressed sherds exhibit relatively dense (22%–35%) aplastic content, and are generally coarse and sandy, with sparsely distributed medium (2mm–10mm) angular crushed quartz granules to fine sand mixed with medium subangular quartz. Sherds from the single vessel that constitute most of the sample contain a mix of quartz particles that includes 31% fine (.06mm–.25mm) quartz sand, 47% medium (.26mm–.5mm) quartz sand, and 22% larger angular quartz particles (.52mm–10mm). The paste is moderately hard and compact, but exfoliates readily due to high sand content. Sherd exterior surfaces range from light yellowish brown (10YR 6/4) to yellowish brown (10YR 5/6); sherd cores range from dark grayish brown (10YR 4/2) to very dark gray (10YR 3/1).

Vessel form: Uwharrie Fabric Impressed rims appear to represent large vertical open jars; a single basal disk indicates a subconoidal form. This vessel exhibits a simple rim with flattened lip that is partially fabric impressed, but impressions are discontinuous around the vessel rim. Other rims indicate at least two additional vessels represented in the collection. Vessel walls are uniform, but thicker than Cape Fear Fabric Impressed; 92% of sherds measure 6mm–8mm. Sherd fractures indicate a strong tendency for these wares (or this particular vessel) to break on coil junctures.

Yadkin Fabric Marked (n=7) (Figure 5.21)

Seven fabric impressed sherds with crushed quartz temper correspond to the Yadkin Fabric Marked type (Blanton et al. 1986; Coe 1964:31–32). This Early Woodland period ware is widely distributed in the Carolina piedmont, but is best documented at 38Su83, where Blanton et al. (1986) obtained radiocarbon dates of 165 BC (intercept) (1σ Cal. 345–42 BC) and 393 BC (1σ Cal. 411–259 BC) on Yadkin phase contexts. Yadkin Fabric Marked wares are similarly dated to 199 BC (intercept) (1σ Cal. 381–67 BC) at 31CH8 (Cable and Claggett 1982) and 193 BC (intercept) (1σ Cal. 367–61 BC) at 31FY549 (Eastman 1994:27).

Attributes

Surface treatment and secondary decorative treatments: Yadkin Fabric Marked wares exhibit coarse weft/ flexible warp textile impressions on exterior surfaces. Weft cordage impressions measure 2.3mm–2.6mm in diameter; warp impressions measure 25mm–2.7mm in width. Textile impressions appear slightly oblique to vessel rim planes. Rim interiors exhibit V-shaped notches (3mm, on 4.6mm centers). Vessel interiors are uniformly smoothed but exhibit vestigial traces of scraping.

Figure 5.21. Yadkin Fabric Impressed rim (obverse and reverse views) from 38YK533.

Aplastic content and paste: Yadkin Fabric Marked sherds exhibit a fine sandy body with angular quartz granules that measure 2mm–5mm. Sand tends to be more uniformly distributed throughout the paste than the angular quartz granules. Sherd exterior surfaces are yellowish red (5YR 5/6–5YR 5/8), with similar colors for sherd cores and interior surfaces.

*Vessel form*s: The small sample of *Yadkin Fabric Marked* sherds from 38YK533 does not reveal specific vessel forms, but vertical rims are consistent with open, conoidal jar forms that are well documented in other contexts (e.g., Blanton et al. 1986).

Badin Fabric Impressed (n=57) (Figures 5.22 and 5.23)

Fifty-seven sand tempered fabric impressed sherds recovered from general deposits around Square 820R831 most closely resemble the Badin Fabric Impressed (Coe 1964:26–29) type, an undated ware that may be antecedent to Yadkin Fabric Impressed. All of these sherds appear to derive from a single vessel, and probably represent an ephemeral use of the site during the Early Woodland period.

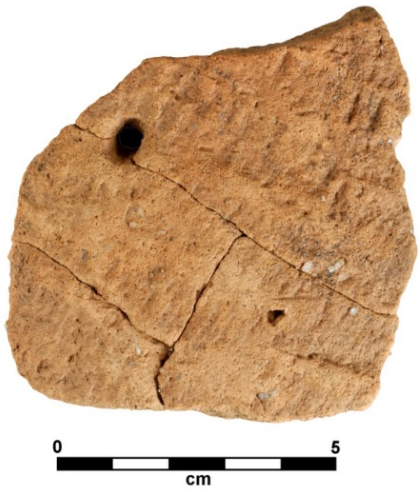

Figure 5.22. Badin Fabric Impressed sherds with mend hole.

Attributes

Surface treatment and secondary decorative treatments: Badin Fabric Impressed wares exhibit medium weft / rigid warp textile impressions on exterior surfaces. Weft cordage impressions measure 1.3mm–1.6mm in diameter; warp impressions measure 3.5mm–4.6mm in width. Textile impressions appear parallel to the rim plane on the single rim sherd, but appear to have been applied in a variety of oblique angles (to coil fractures) over the body. No secondary treatments are evident. Vessel interiors are uniformly smoothed but exhibit vestigial traces of scraping.

Aplastic content and paste: Badin Fabric Impressed sherds exhibit a fine sandy body with sparse subangular quartz granules that measure 2mm–4mm. Uniform distribution of very fine (<.125mm) quartz sand throughout the paste probably indicates selection and use of naturally sandy clays; larger granules may be additive. Sherd exterior surfaces range in color from reddish yellow (5YR 6/6) to strong brown (7.5YR 5/6) with similar colors for sherd cores and interior surfaces.

Figure 5.23. Edge view of Badin Fabric Impressed sherd illustrating aplastic content.

Vessel form: Badin Fabric Impressed sherds from 38YK533 appear to represent a large vertical, open-mouthed conoidal jar with a simple flattened lip. Sherds exhibit a tendency to break along poorly welded coil junctures. One drilled mend hole is evident in a relatively thick, lower wall sherd, a probable indication that the repaired vessel had cycled into dry containment functions.

Deptford Check Stamped (n=11 [50]) (Figure 5.24)

Possibly coeval with the Badin Fabric Impressed wares are eleven sand tempered, check stamped sherds that conform to the Deptford Check Stamped type (Caldwell and Waring 1939a; DePratter 1979, 1991) following Cable (1996; personal communication 2012). All of these sherds are attributable to a single vessel recovered from Feature 58. Thirty-nine associated sherds exhibit identical paste and temper, but exhibit indeterminate stamped, smoothed or indeterminate surfaces; these appear to be fragments of the same Deptford Check Stamped vessel. Blanton et al. (1986:75–77) report closely similar wares from 38SU83 (100km south of 38YK533), but classify these as Yadkin Check Stamped (Coe 1964:30–32). Deptford nomenclature is applied here in view of the historical precedence of usage in the South Carolina Piedmont region, and because these check stamped sherds from 38YK533 do not exhibit the abundant angular quartz temper inclusions characteristic of the Yadkin ceramic wares as defined by Coe.

Figure 5.24. Deptford Check Stamped vessel section, Feature 58, 38YK533.

Anderson (1982:281) proposes a date range ca. 800 B.C.–A.D. 500 for Deptford Check Stamped in the lower Santee River basin. Blanton, et al., (1986:75–77) report a corrected radiocarbon age of ca. 460 B.C. for closely comparable Yadkin Check Stamped wares at 38SU83 in the lower Wateree River Valley. Nagle and Green (2010) derived radiocarbon dates of 1700±40 yrs. BP and 2140±40 yrs. BP and TL dates of 2060±90 yrs. BP and 2110±120 yrs. BP on Deptford associated contexts at the Treehouse Site near Irmo, SC.

Attributes

Surface treatment and secondary decorative treatments: Deptford Check Stamped sherds from 38YK533 exhibit a paddle impressed grid pattern of rectangular cells (4mm x 6mm) divided by .5mm lands, applied at approximately 30° to the rim plane. No secondary treatments are evident. Vessel interiors are uniformly smoothed but exhibit trailing from temper particles.

Aplastic content and paste: Deptford Check Stamped sherds exhibit a fine sandy body with sparse subangular quartz granules that measure 1mm–2.5mm. Uniform distribution of very fine (<.125mm) quartz sand throughout the paste probably indicates selection and use of naturally sandy clays; larger granules may be additive. Sherd exterior surfaces range in color from very pale brown (10YR 7/3) with similar colors for sherd cores; interior surfaces are light brownish gray (10YR 6/2).

Vessel form: Deptford sherds from 38YK533 appear to represent a large (approximately 35cm diameter) vertical, open-mouthed conoidal jar with a simple rounded lip. Vessel walls are thick (9mm–10mm), and coil fractures are prominent.

Woodstock Complicated Stamped (n=59 [136]) (Figures 5.25, 5.26, and 5.27)

Fifty-five sand tempered, complicated stamped sherds derive from three Woodstock Complicated Stamped (Caldwell 1950:29; Wauchope 1948:201, 1966:60–62) vessels, a ceramic type documented primarily in Georgia (Markin 2007). An additional 81 sherds from Feature 1 exhibit indeterminate stamped, smoothed, or indeterminate surfaces, but otherwise match one defined Woodstock Complicated Stamped vessel in terms of paste, color, and sherd thickness; some of these refit to complicated stamped sherds. These vessels are attributed to the Ashe Ferry phase site occupation; one Woodstock Complicated Stamped sherd from Feature 11 is associated with a calibrated AMS date of A.D. 1010 (intercept) (2σ Cal. A.D. 980–1030). This assay is consistent with the later end of the ca. A.D. 800–1000 span documented for Woodstock phase contexts in Georgia (Markin 2007). The limited incidence of Woodstock Complicated Stamped wares at Ashe Ferry may reflect only minor temporal overlap of the Woodstock phase with the Ashe Ferry phase. As Anderson (1996:271) notes, Woodstock ceramics occur rarely east of the western Piedmont region of South Carolina.

Figure 5.25. Woodstock Complicated Stamped sherds, Trench 10, 38YK533.

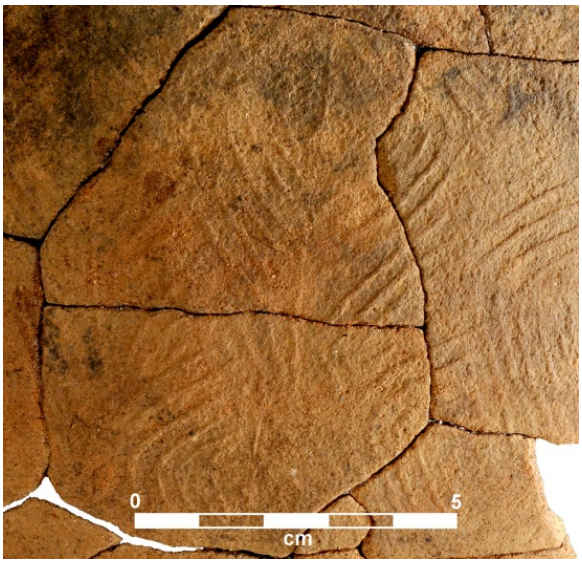

Figure 5.26. Woodstock Complicated Stamped sherds, Feature 1, 38YK533.

Attributes

Surface treatment and secondary decorative treatments: Woodstock Complicated Stamped sherds from 38YK533 exhibit paddle impressed curvilinear complicated geometric motifs distinguished by narrow (1.5mm–2mm) lands and grooves, and shallow, but clear execution. Stamp motifs include a pattern of nested ovals with horizontal 3-bar fills against a field of straight parallel lines (Figure 5.29) and a pattern nested (6 line) ogees with a vertical bisection line (Figure 5.30). On one vessel, the neck inflection is defined by a 3mm incised band. One vessel exhibits a simple rim with a rounded and slightly extruded lip. The other rim is simple, but markedly thinned to 2mm below a squared and slightly extruded lip. Vessel interiors are well smoothed, but wiping striations are still evident.

Aplastic content and paste: Woodstock Complicated Stamped sherds exhibit aplastic content similar to Ashe Ferry series wares, with abundant fine (<.25mm) quartz sand with sparse admixtures of coarse (.5mm–1mm) or very coarse (1mm–2mm) subangular quartz sand. Sherd exterior surfaces are pale brown (10YR 6/3) to light yellowish brown (2.5Y 6/3) with very dark gray (10YR 3/1) cores.

Figure 5.27. *Woodstock Complicated Stamped* jar section, Feature 1, 38YK533.

Vessel form: Feature 1 yielded a section of a large, vertical Woodstock jar with a rounded (subconoidal) base and a moderately everted rim. Vessel dimensions are estimated approximately 40cm tall and 34cm rim diameter. Another Woodstock vessel appears to be a low, short-necked jar. Vessel walls are slightly thicker on average than those in Ashe Ferry series sherds; over 40% of Woodstock Complicated Stamped sherds are >6mm thick.

Mississippian Burnished Plain (n=120) and ***Mississippian Plain*** (n=99) (Figure 5.28)

Plain and burnished plain sherds that exhibit floated exterior or interior surfaces are attributed to Mississippian period occupations at Ashe Ferry, and are categorized as Mississippian Plain/Burnished Plain consistent with terminologies applied at Mattassee Lake (Anderson 1982) and the Camden district (i.e., Cable 2002; DePratter and Judge 1990). Mississippian Plain/Burnished Plain sherds are most consistently distinguished from Ashe Ferry Plain sherds in terms of degree of surface finish (i.e., floated surfaces and trimming/burnishing facets on Mississippian Plain/Burnished Plain), greater average thickness of Mississippian sherds, and a tendency toward coarser, lower density aplastic content (54% medium sand/grit). Feature contexts that yielded Mississippian Plain/Burnished Plain sherds are radiocarbon dated to A.D. 1210 and A.D. 1300, indicating an early Middle Mississippian period occupation (here termed Early Brown phase) closely successive to the Late Woodland period Ashe Ferry phase occupation. Mississippian Plain/Burnished Plain sherds are the primary diagnostic elements of Mississippian period occupation at the Ashe Ferry site; it is assumed small numbers of Mississippian complicated stamped sherds and elaborated rims recovered from plowzone contexts are contemporaneous elements of the Early Brown ceramic phase.

Figure 5.28. Mississippian Plain/Burnished Plain rims from 38YK533.

Attributes

Surface treatment and secondary decorative treatments: Mississippian Plain and Burnished Plain sherds from 38YK533 are completely smoothed, with floated exterior and interior surfaces, and frequently exhibit residual facets from trimming and burnishing. Burnished Plain sherds are distinguished by a low degree of exterior polish; in many instances such polished surfaces may have degraded to plain surfaces. Vessel interiors are well smoothed; 40% are burnished. Secondary decorative treatment of rims is common; 53% (i.e., 30) exhibit stylus notching on lip surfaces. Twenty-five rims are notched with round dowels (most likely large bird quills; see Whyte et al. 2011) that range from 2.1mm–4.5mm in diameter. Such round dowel notching appears particularly diagnostic, and does not appear on Ashe Ferry phase wares, but is documented in ca. A.D. 1200–1300 assemblages at the Belmont Neck site near Camden (Cable 2002; DePratter and Judge 1990). Two plain rims exhibit small circular punctations executed with the ends of round styluses; these may represent different fasces of the tools used to execute dowel notching. One body sherd has three parallel fineline incisions.

Aplastic content and paste: Mississippian Plain and Burnished Plain sherds exhibit a range of aplastic inclusions. Medium mixed sand/grit temper is evident in 43% of sherds, while fine quartz sand temper is present in 16%. Fine quartz sand with prominent admixtures of coarse/very coarse sand is noted in 40% Mississippian Plain and Burnished Plain sherds. Large particles tend to be sparse, but evenly distributed, and the clay body appears well mixed. Exterior surfaces of Mississippian Plain/Burnished Plain sherds are either light gray (10YR 7/2) to very pale brown (10YR 7/3) or much darker hues from brown (7.5YR 5/4) to dark grayish brown with similar colors for sherd cores and interior surfaces. Approximately 15% of Mississippian Plain/Burnished Plain sherds exhibit interior smudging.

Vessel form: Vessel form diversity greatly exceeds that of preceding Ashe Ferry series wares. Most Mississippian Plain/Burnished Plain rim fragments are attributable to shouldered, incurvate rim bowls with restricted orifices and flat bases. Most bowl rims exhibit either beveled interior thickened lips (coronas), or simple interior bevels (see Figure 5.40). Short necked jars, thickened rim jars, flaring walled pans, and miniature jars are also represented. One sherd exhibits a probable plugged loop handle attachment scar. Three rims exhibit peaks or castellations, five have modeled nodes, and one rim exhibits an attenuated lug. Vessel walls are typically thicker than Ashe Ferry series wares; 60% of Mississippian Plain and Burnished Plain sherds measure greater than 6mm thick.

Early Brown Complicated Stamped [provisional] (n=85) (Figures 5.29 and 5.30)

Eighty-four sherds recovered from plowzone contexts exhibit curvilinear or rectilinear complicated stamped motifs applied to bodies that resemble Mississippian Plain/Burnished Plain wares in terms of paste, aplastic content, and vessel wall thickness. Most of these are curvilinear complicated stamped, and generally resemble the Savannah Complicated Stamped type (Caldwell and McCann 1941:42–48; Caldwell and Waring 1939) broadly associated with early Middle Mississippian period occupations in the Wateree and Santee river valleys (Anderson 1982:308–311; Cable 2002). However, unlike Savannah Complicated Stamped, which typically exhibits simple, unmodified rims, the majority of rims associated with complicated stamped Mississippian wares at Ashe Ferry are highly elaborated with thickened folds or collars densely decorated with round stylus punctations, round dowel lip notching, applique nodes, and

castellations. Lip notching on these rims duplicates that observed on Mississippian Plain/Burnished Plain rims, and it is inferred that the complicated stamped wares are coeval with Mississippian Plain/Burnished Plain at Ashe Ferry, and constitute part of the Early Brown phase. These elaborated rims generally resemble early Pisgah series rim treatments documented in the Appalachian Summit (Dickens 1976:186–192) and foothills region of the Carolinas (Charles and Ferguson 2005:4; Moore 2002). Similar wares are reported from the Blair Mound (Teague 1979), McCullom Mound (Ryan 1971), and Tyger Village (Elliott 1984) sites in the Broad River

Figure 5.29. Early Brown Complicated Stamped sherds from 38YK533 plowzone contexts.

basin in the central piedmont region. Farther afield, on the upper Savannah River, Anderson and Joseph (1988:287–293) report collared rims and other elaborated forms at Rucker's Bottom, and Rudolph and Hally (1985:273–274) noted collared rims associated with early Middle Mississippian period contexts at the Beaverdam Creek site.

Because Mississippian complicated stamped sherds from Ashe Ferry appear internally consistent as a class, but do not conform well to previously defined historical types, a provisional type, *Early Brown Complicated Stamped*, is proposed here.

Attributes

Surface treatment and secondary decorative treatments: Early Brown Complicated Stamped sherds from 38YK533 exhibit bold, paddle applied complex (primarily curvilinear) stamp patterns that are the hallmark of South Appalachian Mississippian wares. The small and highly fragmented sample precludes definition of clear stamp motifs, but partial patterns appear consistent with the Middle Mississippian period Savannah Complicated Stamped type. Overstamping is prevalent, and stamp execution varies widely from crisp patterns applied to relatively dry surfaces, to less distinct "sloppy" applications on wet surfaces. Stamp elements are relatively open and wide, with grooves ranging from 2.3mm–4mm and lands ranging from 2.6mm–3.5mm. Rectilinear patterns are rare and may represent partial elements of larger patterns based around curvilinear central motifs. Secondary decorative treatments are confined to rims, which are markedly elaborated by modeling (i.e., thickening, nodes, castellations), notching, and punctation. Rim/body or rim/neck junctures are often highly inflected and demarcated by a broad incision or groove that weakens the juncture and causes rims to detach readily from bodies. As a consequence, most thickened or collared rims are disassociated from body sherds, but snapped inflection grooves on both body and rim sherds indicates probable correspondence.

Figure 5.30. Elaborated rims attributed to Early Brown Complicated Stamped vessels from 38YK533 plowzone contexts.

Aplastic content and paste: Early Brown Complicated Stamped sherds tend to include higher proportions of aplastic material than presumably contemporaneous Mississippian Plain and Burnished Plain sherds. Medium mixed sand/grit temper is evident in 15% of sherds, while fine quartz sand temper is present in 6.8%; 78% of Early Brown Complicated Stamped sherds include fine quartz sand with prominent admixtures of coarse/very coarse sand. Most Early Brown Complicated Stamped sherds are evenly colored throughout (with the exception of occasional firing clouds), ranging from brown (7.5YR 5/4, 7.5YR 4/2) and strong brown (7.5YR 5/6) to reddish brown (5YR 5/4). Pale grayish bodies evident in Mississippian Plain/Burnished Plain wares are not represented in the complicated stamped wares, and some

differences in clay selection are indicated. Approximately 27% of Early Brown Complicated Stamped sherds exhibit interior smudging.

Vessel form: Most Early Brown Complicated Stamped sherds from 38YK533 appear to represent large, flaring rim globular jars without distinct neck inflections. These jar forms are likely associated with Mississippian Plain\Burnished Plain bowls as elements of the early Middle Mississippian period Early Brown phase assemblage. Vessel wall thickness is highly variable, ranging from 4.2mm up to 10mm; 64% of Early Brown Complicated Stamped sherds are >6mm thick.

Figure 5.31. Early Brown phase (early Middle Misssissippian period) vessel rim profiles (exterior to left). top row: Mississippian Plain/Burnished Plain bowl rims; bottom row: Early Brown Complicated Stamped jar rims.

Twelve Mile Check Stamped [provisional](n=41 [77]) (Figure 5.32)

Forty-six sherds recovered from Features 78 and 79 are attributable to a large, sand-tempered linear check stamped jar with a partially smoothed neck zone decorated with three rows of rectangular jab-drag punctations. An AMS assay of associated charcoal returned a

calibrated date of A.D. 1270 (intercept) (2σ Cal. A.D. 1230–1290), indicating deposition during the Early Brown phase. Plowzone contexts yielded 54 similar linear check stamped sherds, as well as 13 other sherds with this distinctive jab-drag rectangular punctation. These punctate and check stamped wares are designated as representing a new provisional type, *Twelve Mile Check Stamped*. Incidence of *Twelve Mile Check Stamped* as part of the early Middle Mississippian period Early Brown phase is consistent with the minority representation Savannah Check Stamped wares in the contemporaneous Belmont Neck (Cable 2002; DePratter and Judge 1990), Savannah II (DePratter 1991), Jeremy (Anderson 1982; Trinkley 1980, 1981), and Beaverdam (Rudolph and Hally 1985; Hally and Rudolph 1986) phases.

These wares also superficially resemble Camden Check Stamped (Stuart 1970, 1975), a type defined on the basis of materials collected from the Guernsey site near Camden, South Carolina. The Camden wares are characterized by abundant grit temper on thin bodies with check stamped surface treatments and frequent incised or rectangular punctate secondary treatments. Stuart originally postulated a general temporal placement between ca. A.D. 1000–1400, but regards the

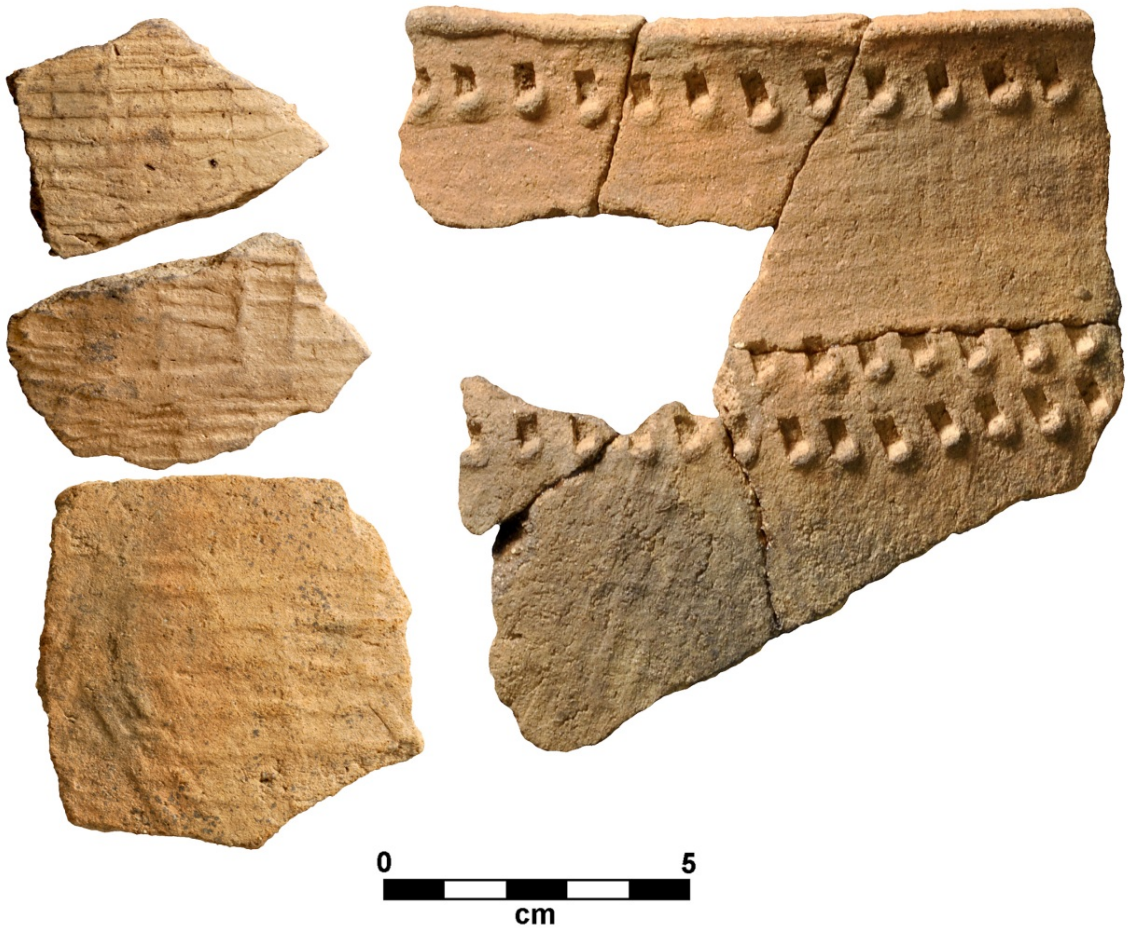

Figure 5.32. Twelve Mile Check Stamped sherds from 38YK533. Vessel section at right is associated with an AMS date of A.D. 1270 (intercept) (2σ Cal. A.D. 1230–1290).

Camden Ceramic Complex material as anomalous and enigmatic (George Stuart, personal communication, 2012). Elliott (1984) relates punctate and incised check stamped sherds collected from Tyger Village site (38UN213) (near Whitmire, South Carolina) to the Camden Check Stamped type, and reports an uncorrected radiocarbon date of A.D. 1400 ± 80 years for a context that included check stamped sherds (as well as rectilinear complicated stamped sherds). Recent salvage work at 38SU13 (near Sumter, SC) recovered Camden Ceramic Complex materials, including punctate check stamped wares, from discrete feature contexts (Christopher Judge, personal communication 2012; Vanier 2013). Associated fabric impressed vessel sections may indicate an earlier temporal frame for the materials, but no absolute dates for the 38SU13 contexts have been obtained at the time of this report. Osbourne (2013) reports wares that closely resemble *Twelve Mile Check Stamped* from the Eden site, a Mississippian period site located along the Congaree River near Columbia, South Carolina.

Comparison of the Ashe Ferry material with Stuart's type collection reveals several points of difference, but also similarities. The Ashe Ferry punctate and check stamped ware is substantially thicker (6.2mm–7mm) on average than Camden wares, which Stuart (1970:111–112) indicates as ranging from 4mm to 6mm thick. The Ashe Ferry material also exhibits much sandier pastes, and stamping on *Twelve Mile Check Stamped* is typically light and partially obliterated, as contrasted to bold execution of Camden Check Stamped. Although the particular jab/drag punctation of the Ashe Ferry site wares is not evident in the Guernsey collection, punctation and incised treatments appear to have been executed with similar sized (i.e., 3mm–3.5mm) rectangular styluses on sherds from both sites.

Attributes

Surface treatment and secondary decorative treatments: Twelve Mile Check Stamped sherds from 38YK533 exhibit paddle applied linear check patterns that are typically lightly executed and partially obliterated. The Twelve Mile Check Stamped vessel evinces rectangular cells (5.8mm x 3.6mm) separated by 1.6mm wide longitudinal lands and 1mm transverse lands. Stamping below the neck inflection was applied at approximately 70° from the rim axis. Stamping on the neck parallels the rim axis and is heavily smoothed to create a distinct design zone. The vessel is decorated with three rows of rectangular (5.5mm x 3.5mm) punctations oriented 10°–27° from the rim axis, with punctations arrayed 5mm–6.7mm apart. One row of punctations is positioned approximately 7mm below the vessel lip; the other two rows are situated at the neck-body juncture. Sherds from other presumed Twelve Mile Check Stamped vessels exhibit similar linear check stamp patterns, with elongate rectangular check cells divided by lands that are more pronounced (i.e., deeper paddle grooves) along the long axis of the cells. Vessel interiors are well smoothed, and 20% of Twelve Mile Check Stamped sherds evince smudged interior surfaces. Only one sherd has a clearly burnished interior.

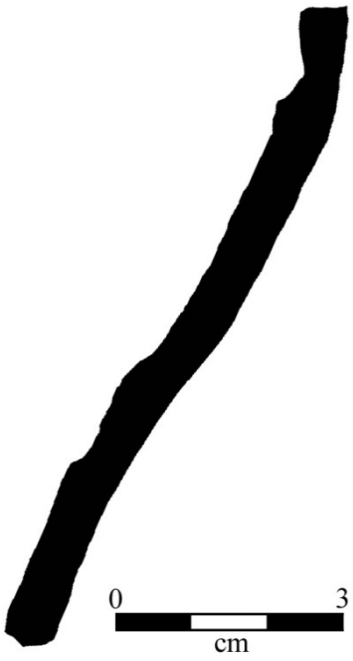

Figure 5.33. Rim profile of Twelve Mile Check Stamped vessel section. Orientation determined by lip plane.

Aplastic content and paste: Twelve Mile Check Stamped sherds tend to be compact and dense, with generally higher proportions of aplastic material than presumably contemporaneous Mississippian Plain/Burnished Plain and Early Brown Complicated Stamped sherds. Fine quartz sand with prominent admixtures of medium sand is evident in 50% of Twelve Mile Check Stamped sherds; 39% are tempered with fine quartz sand with coarse/very coarse sand inclusions. Nine Twelve Mile Check Stamped sherds include relatively well sorted fine quartz sand, and two evince medium mixed sand/grit temper. Most Twelve Mile Check Stamped sherds range in color from light brown (7.5YR 6/4, 10YR 6/3) to brown (7.5YR 5/3–7.5YR 5/4) and tend to be evenly colored throughout. Clay choice resembles Early Brown Complicated Stamped rather than Mississippian Plain/Burnished Plain.

Vessel form: Only one Twelve Mile Check Stamped vessel, a large (~32 cm orifice diameter) globular jar with insloping rim profile and a weakly defined neck (Figure 5.32, 5.33), is clearly definable in the collection. The rim is slightly thinned, with a squared and slightly extruded lip. Vessel wall thickness in this vessel ranges from 5.4mm to 9.5mm. Other Twelve Mile Check Stamped sherds apparently represent vessels of similar scale (as indicated by sherd curvature and thickness).

Ceramic Assemblages, Ceramic Chronology, and Site Occupation History at 38YK533

One of the primary goals of attribute based analysis of the 38YK533 ceramic sherds was to define temporally associated assemblages of materials that could be used to reconstruct the chronology and scale (i.e., duration/intensity) of site occupation. Ceramic artifacts are media particularly well suited to these tasks because they are both abundant and chronologically sensitive (with regard to temporal variation of technofunctional and superficial stylistic attributes). Toward these ends, individual sherds were assigned (when possible) to previously defined historical types with documented temporal ranges (as described in the preceding section) or categorized as newly defined historical types for which temporal placements were ascertained via radiocarbon dating of associated materials from discrete contexts. Ceramic types with similar or concurrent date ranges are then associated, *de facto*, as broad temporal assemblages that constitute ceramic phases.

Typological analyses, combined with a battery of AMS radiocarbon dates derived from materials from discrete contexts, indicate that the vast majority of ceramic sherds recovered from 38YK533 were deposited over a four century (ca. A.D. 950–A.D. 1350) span. Two distinct ceramic assemblages, the Late Woodland period Ashe Ferry phase (ca. A.D. 950–1160) and the early Middle Mississippian period Early Brown phase (ca. A.D. 1200–1350), can be distinguished within this span. Earlier Woodland period occupations are represented by fragments of only five or six vessels (Badin, Deptford, Yadkin, undef. grog-tempered cordwrapped-stick stamped ware), artifacts that probably reflect ephemeral, transient occupations consistent with the long-term use of the site as a footing for the trail crossing of the Catawba River at Twelvemile Ford. Similarly, sparse earlier Archaic period site occupations are indicated by thirteen diagnostic projectile points, four of which were recovered from Late Woodland period contexts (see Chapter 6, this volume).

Chronology of the Late Woodland and Mississippian period components

Construction of a temporal framework for the principal Late Woodland period and Mississippian period components at 38YK533 is based upon a suite of radiocarbon dates obtained from twelve discrete feature contexts that exhibited the largest and more readily definable collections of ceramic sherds (Figure 5.34). Each of the charred botanical samples submitted to Beta Analytic, Inc. for accelerator mass spectrometry radiocarbon assay was selected to minimize likelihood of contamination and to obviate problems of "old" carbon by using annuals (e.g., acorns, hickory nutshell) or short-lived species (e.g., river cane). Nonetheless, the Feature
22 sample returned markedly anomalous dates (i.e., 4350±30 yrs. BP, 3820±30 yrs. BP, and 900±30 yrs. BP) and are rejected as erroneous. The other AMS assays returned a series of estimates of conventional radiocarbon ages ranging from 1040 B.P. to 630 B.P. with standard deviations of 30 years (respectively). Two-sigma calibrations of these dates provide evidence of persistent site occupations ranging between ca. A.D. 970 and A.D. 1400, with calibration curve intercepts that range from A.D. 1010 to A.D. 1380 (Table 5.5; Appendix E). The estimates group as three temporal clusters; five samples returned assays with intercepts in the early 11th century, two samples appear to date to the mid-12th century, and three samples date to the 13th–early 14th centuries.

Table 5.5. AMS dates associated with 38YK533 feature contexts.

Feature	*conventional radiocarbon age*	*2 σ calibration*	*intercept(s) of radiocarbon age with calibration curve*
77	1040±30 BP	cal AD 970 to 1030	cal. AD 1010
11	1030±30 BP	cal AD 980 to 1030	cal. AD 1010
53(b)*	1010±40 BP	cal AD 970 to 1050; cal AD 1090 to 1120; cal AD 1140 to 1150	cal. AD 1020
50	1000±30 BP	cal AD 990 to 1040; cal AD 1100 to 1120	cal. AD 1020
46	1000±30 BP	cal AD 990 to 1040; cal AD 1100 to 1120	cal. AD 1020
52	970±30 BP	cal AD 1010 to 1160	cal. AD 1030
53(a)*	920±30 BP	cal AD 1030 to 1190; cal AD 1200 to 1210	cal AD 1050; 1080; 1130; 1150
48	910±30 BP	cal AD 1030 to 1210	cal. AD 1160
28	900±30 BP	cal AD 1040 to 1210	cal. AD 1160
76	840±30 BP	cal AD 1160 to 1260	cal. AD 1210
78	750 ±30 BP	cal AD 1230 to 1290	cal. AD 1270
41	630±30 BP	cal AD 1280 to 1400 (cal BP 660 to 550)	cal. AD 1300; 1360; 1380
22(a)*	2520±30 BP	cal BC 790 to 730 (cal BP 2740 to 2680); cal BC 690 to 660 (cal BP 2640 to 2610); cal BC 650 to 540 (cal BP 2600 to 2490)	cal. BC 760; 680; 670
22(b)*	900±30 BP	cal AD 1030 to 1220 (cal BP 920 to 740)	cal AD 1160
22(c)*	3820±30 BP	cal BC 2400 to 2380 (cal BP 4350 to 4330); cal BC 2340 to 2200 (cal BP 4300 to 4150); cal BC 2170 to 2150 (cal BP 4120 to 4100)	cal BC 2280; 2250; 2230; 2220; 2210
22(d)*	4530±30 BP	cal BC 3360 to 3260 (cal BP 5310 to 5210); cal BC 3240 to 3100 (cal BP 5190 to 5050)	cal. BC 3340; 3200

* multiple assays performed on split samples

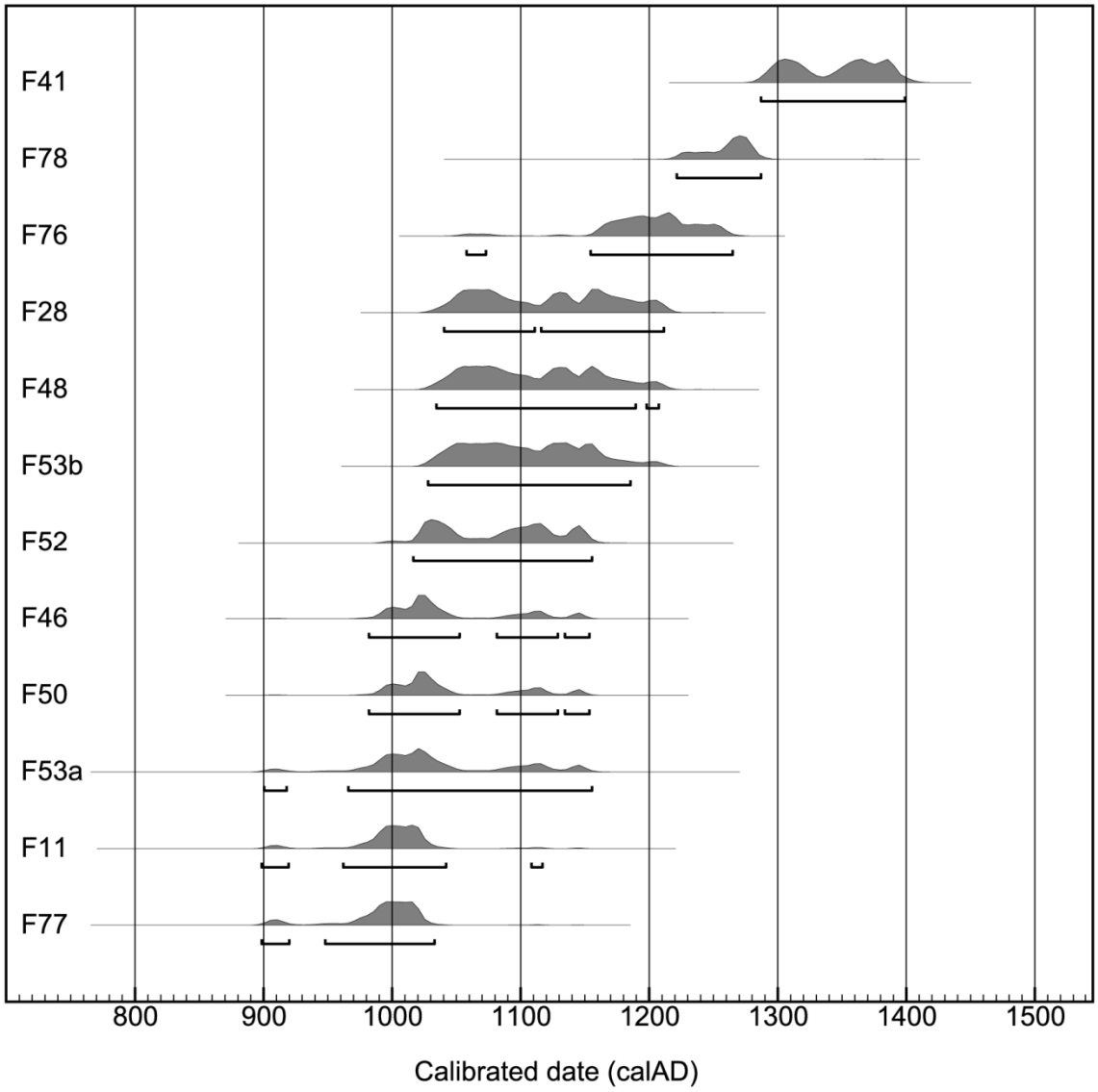

Figure 5.34. Graph illustrating calibrations of AMS dates from 38YK533 contexts, with 2σ ranges indicated by brackets (anomalous Feature 22 dates excluded). Generated by OxCal 4.2 using IntCal13 curves (Bronk Ramsey 2009; Reimer et al., 2013).

Ashe Ferry Phase (ca. A.D. 950–1200)

The ceramic assemblages associated with 11th and 12th century dated contexts form the basis for defining the *Ashe Ferry phase* (ca. A.D. 950–1200), a Late Woodland period ceramic complex comparable to (and coeval with) the Santee II ceramic phase (Anderson 1982, 1994; Cable 2002) defined at Mattassee Lake in the middle Santee River basin, 115m southeast of 38YK533). The earliest dated contexts (Features 11, 46, 50, 52, 77) yielded sherd collections (n=484 sherds) heavily dominated (67%–81% of defined surfaces) by sand tempered simple stamped wares (Ashe Ferry Simple Stamped) (Table 5.6; Figures 5.15, 5.35, 5.36, and 5.37). Plain and smoothed/obliterated surfaces constitute 15%–23% of sherd surfaces defined in these contexts; most of these are likely oversmoothed portions of Ashe Ferry Simple Stamped vessels.

Table 5.6. Ceramic sherds associated with contexts dated ca. A.D. 1010–1030 (38YK533, Features 11, 46, 50, 52, 77).

		temper/aplastic content					
type/series	*surface treatment*	crushed quartz	medium sand/grit	sand	sand with subangular quartz particles	sherdlets (not analyzed)	totals
Ashe Ferry	simple stamped	9		17	238		264
Ashe Ferry	stamped (indet.)			1	11		12
Ashe Ferry	cordmarked				2		2
Ashe Ferry	plain			6	23		29
Ashe Ferry	plain (rough)		1		1		2
Ashe Ferry	smoothed (obliterated)	7		3	27		37
Woodstock	complicated stamped				2		2
Uwharrie	fabric impressed				1		1
n/d	indet./eroded/spalled			2	35		37
n/d	sherdlets (not analyzed)					98	98
	totals	16	1	29	340	98	**484**

Two cordmarked sherds exhibit paste closely comparable to that of Ashe Ferry Simple Stamped sherds; these are categorized as Ashe Ferry Cordmarked. These early contexts also yielded two Woodstock Complicated Stamped sherds and one Uwharrie Fabric Marked sherd; the early 11th century dates are consistent with accepted date ranges for these types (Eastman 1994; Hally and Rudolph 1986; Markin 2007; Ward and Davis 1999). Cape Fear Fabric Impressed sherds recovered from Feature 22, a probable early Ashe Ferry phase context, may indicate contemporaneity of that ware with the early Ashe Ferry Simple Stamped type. One third of vessel lips are simple stamped or lightly notched, but no other secondary decorative treatments are evident among these earliest feature collections. Vessel lips (n=29) are mostly simple rounded or flattened; only six exhibit noticeable exterior extrusion.

Most vessels represented in early dated contexts are medium-sized (30cm–35cm dia.), subconoidal shouldered jars with inslanting rims that are slightly recurvate at the orifice. Inflections of inslanting rims range from 5°–20°. At least one small (18cm dia.) recurvate jar, and one hemispherical bowl (22 cm) are represented in these discrete contexts.

The latter portion of the Ashe Ferry phase is typified by wares from two mid-12th century contexts (Features 28 and 48) (Table 5.7; Figures 5.38 and 5.39). As in the early 11th century contexts, sand tempered simple stamped wares predominate (79% of definable surfaces) and plain/smoothed sherds constitute 19% of the sample. Ashe Ferry Cordmarked sherds continue as a minority (1.4%) type, but fabric impressed and complicated stamped types are not present in

Figure 5.35. Ashe Ferry Simple Stamped sherds recovered from Feature 77.

these contexts and cannot be ascribed to the later Ashe Ferry phase. One vessel from Feature 28 (Figure 5.38a) exhibits a zigzag pattern of multiple (6-line in most arrays) fineline incised chevrons over simple stamping; another fineline incised simple stamped sherd was recovered from Feature 48. Two vessels from Feature 48 evince fine notching or stamping of lip surfaces.

Vessel forms represented in these later Ashe Ferry contexts also include subconoidal shouldered jars with inslanting rims inflected from 10° up to 25° to create restricted orifices. Vertical rimmed hemispherical bowls, which range from 18cm–27cm in diameter, appear more common than in earlier contexts. As a whole, the Ashe Ferry phase can be characterized as spanning the 11th and 12th centuries, with an inception as early as A.D. 950, and a terminus ca. A.D. 1200 (as indicated by dates for the successive Early Brown phase). The phase consists of assemblages dominated by sand tempered (i.e., fine quartz sand with sparse to moderate mixtures of medium-to-coarse quartz sand particles) wares with simple stamped surface treatments and minimal secondary decoration. Simple stamped treatments comprise up to 81% of Ashe Ferry phase assemblages, followed by plain/smoothed treatments (15%–23%) (some of which represent oversmoothed or obliterated areas of simple stamped vessels). Cordmarked treatments

Figure 5.36. Sherds recovered from Feature 11, AMS Cal. A.D. 1010 (intercept); (2σ Cal. A.D. 980–1030). a–e, Ashe Ferry Simple Stamped; f, Woodstock Complicated Stamped.

are persistent minority (1%–1.4%) surface finishes. Complicated stamped and fabric impressed treatments (i.e., Woodstock Complicated Stamped, Cape Fear Fabric Impressed, Uwharrie Fabric Impressed types) are present in the early 11th century, but apparently drop out of Ashe Ferry phase assemblages by the 12th century. Secondary decorative treatments, particularly fineline incision, and probably punctation, are more common in the latter end of the phase. Ashe Ferry vessel forms include vertical, open subconoidal jars, small recurvate wall jars with weak necks, and hemispherical bowls. Most common are shouldered, subconoidal jars with inslanting rims and restricted orifices finished with slightly recurvate lips. Bowl forms apparently increase in relative frequency throughout the Ashe Ferry phase.

Figure 5.37. Ashe Ferry Simple Stamped sherds recovered from Feature 52.

The Ashe Ferry phase, a terminal Woodland period ceramic complex, fills a notable void in the culture historical sequence of the South Carolina piedmont, where the Late Woodland period has long been considered enigmatic (e.g., see Benson 2006:53–55; Trinkley 1990:24; Prentice and Nettles 2003). Although numerous researchers suspected or asserted sand tempered simple stamped wares as Late Woodland period precursors to early Mississippian patterns in the region (e.g., Cable 2002; DePratter 1996; Stuart 1970; Vanier 2010), the Ashe Ferry sample has proven to be the first assemblage recovered from secure, well-dated contexts that clearly situates simple stamped wares as immediately antecedent to the inception of Mississippian ceramic modes in the Piedmont. As such, the Ashe Ferry phase materials provide an important benchmark in the construction of sequences for the surrounding region.

The spatial extent of the Ashe Ferry phase remains undocumented, although comparable components are documented nearby at sites 38LA144 (Charles 1984) and 38LA125, and upstream at Spratt's Bottom (38YK3) (May and Tippitt 2000). Late Woodland period simple stamped wares are also reported from the Blair (38Fa48) and McCollum (38Cs2) mound sites on the Broad River (Green and Bates 2003; Ryan 1971; Teague 1979), and at Tyger Village (38Un213) (Elliott 1986) on the lower Tyger River, all within 45 miles of 38YK533. Downstream near Camden, probable terminal Late Woodland period simple stamped wares are documented at the

Table 5.7. Ceramic sherds from dated mid-12th century contexts (Features 28 and 48).

		temper/aplastic content				
type/series	*surface treatment*	medium sand/grit	fine quartz sand	fine quartz sand with subangular quartz particles	n/d (sherdlets)	totals
Ashe Ferry	simple stamped	1	19	131		151
Ashe Ferry	simple stamped; incised		14	1		15
Ashe Ferry	simple stamped; notched lip		3			3
Ashe Ferry	stamped (indet.)			2		2
Ashe Ferry	cordmarked			3		3
Ashe Ferry	plain		3	13		16
Ashe Ferry	smoothed (obliterated)		7	17		24
n/d	indet./eroded/spalled			14		14
n/d	n/d (sherdlets)				93	93
		1	46	181	93	**214**

Concrete Block (38Ke192), V. Green (38Ke287), and Richardson (38Ke288) sites (McWhorter 2008; Stewart 2008; Vanier 2010; Wagner 2003, 2008), and at the Guernsey site (Stuart 1970).

The Ashe Ferry phase appears to be a local, lower Catawba River Valley expression of a much more widespread terminal Woodland period horizon of sand tempered simple stamped wares. Anderson (Anderson et al. 1996) forwards this simple stamped horizon concept as:

> … the array of evidence generated in recent years — from Georgia (Vining), the upper Savannah River (Russell Reservoir/late Cartersville), central South Carolina (Mattassee Lake/Santee Simple Stamped and Walnut Grove/McClellanville Simple Stamped), and the Connestee area (late simple stamping from A.D. 500–1000) — that, taken together, demonstrates the existence of a late Woodland simple stamped horizon apparently extending from central Georgia to northern coastal North Carolina (Anderson et al. 1996:20).

The Ashe Ferry phase appears most directly comparable to the latter portion of the Santee II phase (Anderson 1982:250; Cable 2007), a ceramic complex widely distributed in the Santee River Basin, approximately 100 miles southeast of 38YK533. Santee II has been variously identified as incipient Mississippian or as an immediate Mississippian precursor (Anderson 1982, 1990; Cable 2007). Anderson identified the Santee I and Santee II phases at Mattassee Lake as:

> … corresponding to the Late Woodland/Early Mississippian time horizon … defined by six dates from six features …. These features, characterized by simple stamped pottery, yielded dates ranging from AD 810–to AD 1340, for an average of AD 1046 (Anderson 1982:355).

Figure 5.38. Ashe Ferry Simple Stamped sherds recovered from Feature 28.

Figure 5.39. Ashe Ferry Simple Stamped sherds recovered from Feature 48.

The Santee I phase (ca. A.D. 700–A.D. 900) includes Santee Simple Stamped, Cape Fear Fabric Impressed, Cape Fear Cordmarked, Woodland Plain, and Wilmington Heavy Cord Marked and Wilmington Plain types. The Santee II phase, dated ca. A.D. 900–1200, is heavily dominated by Santee Simple Stamped wares, but also includes Woodland Plain, and Wilmington Heavy Cord Marked and Wilmington Plain types. Cable (2007) suggests the addition of Santee Cordmarked and Santee Check Stamped types to the Santee II phase. Anderson notes possible contemporaneity with Mississippian complicated stamped wares with Santee II, but that association is not demonstrated.

Santee II phase components are particularly well documented in the Francis Marion National Forest along the central South Carolina coast (Cable 2002, Cable et al. 2013). Using AMS dates derived from Santee phase samples at the Dark Bay, Fogarty Creek, and Sewee Camp sites, Cable et al. (2013) estimate a span of ca. A.D. 850–1200/1220 for Late Woodland period simple stamped wares, but differentiates temporal trends in paste and temper within this span, and suggests adjustments to Anderson's (1982) Mattassee Lake nomenclatures by parsing the Santee series (i.e., Santee Simple Stamped) into two groups. Cable redefines Santee series wares as "characterized by a soft clay body and traits suggestive of a poorly controlled oxidizing firing atmosphere. Cores are generally clear. Exterior and interior surface colors on individual sherds are most often without variation" with edge fracture that is "brittle to crumbly" (Cable 2013:166). This ware is viewed as most characteristic of the earlier portion of the Santee II span. Cable repositions later simple stamped wares as part of the McClellanville series, partially defined by "a hard ceramic fabric along with other traits suggesting better-controlled, longer duration firing conditions undertaken more often in a partially reducing atmosphere. Specimens approach the extremely hard clay body typical of later Mississippian pottery" (Cable 2013:171). Based on paste similarities between later McClellanville wares and successive Mississippian wares, and the co-occurrence of simple stamped wares with Mississippian complicated stamped wares in discrete contexts, Cable (2013) views the emergence of Mississippian ceramic patterns in the central coastal region as a gradual transition occurring during the Santee II phase.

Late Woodland period components dominated by sand tempered simple stamped wares are also attested along the upper Saluda River in the Blue Ridge foothills, where Ferguson obtained 11th century radiocarbon dates for pit contexts that yielded simple stamped jars with constricted necks, along with Woodstock Complicated Stamped wares (Charles and Ferguson 2005:4; Terry Ferguson, personal communication March 2012). These assemblages are not yet extensively described, but their documented presence lends weight to Anderson's (Anderson and Joseph 1988:246–247) suggestion that some of the simple stamped pottery traditionally ascribed to Cartersville or Connestee series in the upper Savannah River basin actually dates to the terminal Woodland period time horizon.

The best documented of these terminal Woodland/early Mississippian period phases characterized by simple stamped wares is the Vining phase of central Georgia, a construct originally formulated by Kelly (1938) as the "Vining simple stamped pottery complex" of the Macon Plateau (see Elliott and Wynn 1991; Meyers et al. 1999; Pluckhahn 1997; Worth 1996:76–77). Elliott and Wynn (1991) resurrected the Vining complex concept for the Oconee and Ocmulgee river valleys, and proposed a Vining phase (ca. A.D. 950–1150) characterized by ceramic assemblages of fine grit tempered wares with plain surfaces (58%–78%) and simple stamped surfaces (22%–42%) found in association with small triangular projectile points. Worth's (1996) investigations of the Vining phase component at the upland Raccoon Ridge site

on the Oconee River yielded evidence of a large, village-scale occupation that included storage pits and evidence of circular single-post domestic structures. Ceramic assemblages associated with OCR dates of ca. A.D. 1015–1205 include up to 50% simple stamped wares, approximately 30% plain surfaced wares, and examples of Woodstock, Etowah, and Savannah complicated stamped types. At Tarver, located on the Ocmulgee River within 10 km of Macon Plateau, the Vining phase assemblage is dated ca. A.D. 1000–1100 and includes 58% Vining Simple Stamped sherds and 32% plain wares (Pluckhahn 1997). Pluckhahn also defined Bibb Plain, a Macon Plateau Mississippian type, as part of the Vining phase assemblage at Tarver.

Farther west, below the Fall Line on the Flint River, Worth and Duke (1991) defined the Lester phase at Hogcrawl Creek site, with a Vining-like ceramic assemblage of plain (88%) and simple stamped (10%) jars and bowls. Worth and Duke (1991:30) note that, for simple stamped wares, "open bowl forms and bowls or jars with sharply incurvate rims and restricted orifices seem to predominate." Worth and Duke suggest a ca. A.D. 900–1150 temporal range for the Lester phase, and relate the complex to both the Vining phase of the Oconee and Ocmulgee river valleys and the Averett phase of the Chattahoochee River Valley.

The temporal placement of the Santee II, Vining, and Lester phases (all approximately contemporaneous with the Ashe Ferry phase) has compelled researchers to consider these ceramic complexes as emergent or Early Mississippian manifestations rather than Late Woodland phases. More precisely (if somewhat more convoluted), Worth and Duke (1991), Worth (1996), and Pluckhahn (1999) appear to consider the Vining and Lester phases as representative of Woodland cultures situated in close proximity to contemporaneous Mississippian cultures during the Early Mississippian period. Worth notes that the Raccoon Ridge Vining component "was apparently contemporaneous with the emergent Mississippian Woodstock culture of North Georgia" and suggests "The contemporaneous development of a more heterogeneous cultural landscape characterized by several more or less clearly defined ceramic style zones" (Worth 1996:63). Pluckhahn (1999:49) observed that the dating of the Vining phase component at Tarver "indicates that the comparatively dissimilar societies represented by Vining and Macon Plateau assemblages existed within 10km of each other during the period from approximately 1000 to 1100 A.D," but suggests that "there was considerable interaction between the Early Mississippian populations in the Macon area" (Pluckhahn 1999:49).

Although less clearly delineated, this situation may also exist along the South Carolina fall line interface, where Cable (2000) has suggested development of early Mississippian Etowah related complexes at the Belmont Neck site in the Camden district during the eleventh century. No evidence of such early Mississippian occupation is detected at the Ashe Ferry site, despite the relative proximity to Camden (48 miles) and possible contemporaneity of the Ashe Ferry phase with Camden area early Mississippian phases. It should be noted, however, that the timing of the Camden/Wateree sequence has not yet been underpinned with absolute dates, and the contemporaneity of the Woodland pattern Ashe Ferry phase with nearby early Mississippian phases may be more apparent than real. Nonetheless, persistence of the later Ashe Ferry phase through the twelfth century, followed in rapid succession by the early Middle Mississippian Early Brown phase, indicates the asynchronous spread of Mississippian ceramic patterns through the Catawba-Wateree-Santee river basin, a situation that hints at considerable social and cultural complexity across the north central Piedmont, Fall Line, and Coastal Plain zones of South Carolina.

The widespread, supraregional extent of the Late Woodland/Early Mississippian simple stamped ceramic style horizon reflects existence of a broadly shared information network that persisted in relatively stable form for 200–300 years. The relationship of this network to the ensuing Mississippian culture networks is unclear at present. Various models have promoted hypotheses of social competition or cooperation, rapid cultural replacement or gradual transformation, or even rapid population replacement versus cultural assimilation. In all likelihood, the relationships are quite diverse and complex, yet little evidence has been brought to bear on Woodland pattern persistence and Mississippian pattern emergence within the region covered by the late simple stamped ceramic style horizon. It may prove that the information network represented by the late simple stamped ceramic style horizon constituted a matrix initially (ca. A.D. 1050) resistant to Mississippian patterns, but which later (ca. A.D. 1200) facilitated rapid incorporation of Mississippian systems. Unfortunately, the Ashe Ferry phase and ensuing Early Brown phase samples from 38YK533 shed little light on these processes other than to provide close framing for the timing and material patterns involved in the transition from Woodland ceramic patterns to Mississippian ceramic patterns.

Early Brown phase (ca. A.D. 1210–1350)

Feature contexts dated to the 13th and 14th centuries yielded small numbers of grit tempered plain/burnished plain sherds and sand tempered punctate/check stamped sherds, wares not found in earlier dated contexts (Table 5.8; Figures 5.32, 5.39, and 5.40). These sherds, along with similar wares recovered from plowzone and remnant A-horizon deposits across 38YK533, are the basis for defining the *Early Brown phase* (ca. A.D. 1210–1350), an early middle Mississippian period ceramic complex referable to Savannah Culture (Hally and Rudolph 1986:51). These 13th and 14th century contexts also yielded Ashe Ferry Simple Stamped sherds, but contemporaneity of these sand tempered simple stamped wares with the Mississippian period wares is uncertain. Because Ashe Ferry Simple Stamped sherds are ubiquitous in plowzone and remnant A-horizon deposits across the site, the presence of these sherds in post-A.D. 1200 contexts may reflect incidental inclusion.

Feature 76, Zone A is interpreted as an Early Brown phase pit that intruded an earlier Ashe Ferry phase storage pit. AMS assay of carbonized nutshell recovered from a mass of charred hickory nutshells in the Zone A deposit yielded a radiocarbon age of 840±30 years B.P. (2σ calibration cal. AD 1160 to 1260; calibration curve intercept cal. A.D. 1210), a result that substantially overlaps the later Ashe Ferry phase dates in the 2-sigma range. Included in this deposit (in addition to nine Ashe Ferry Simple Stamped sherds) were a grit tempered plain bowl rim and a grit tempered burnished plain body sherd (Figure 5.40) referable to the Mississippian Plain/Burnished Plain type. The bowl rim is clearly distinguished from Ashe Ferry simple stamped bowls, having an incurvate profile, interior thickening or extrusion of the lip trimmed to effect a sharply defined corona or ridge, and cylindrical dowel or stylus impressed notches applied diagonally to the top of the lip. This type of lip notching is evident on thirty plain or burnished plain rim sherds in the 38YK533 sample, including sherds recovered from Features 41, 46, and 53. Feature 41, which also yielded burnished plain, rough plain, and complicated stamped sherds, is AMS dated to 630±30 years B.P. (2σ calibration cal. A.D. 1280 to 1400; calibration curve intercepts cal. A.D. 1300, 1360, and 1380) (Figure 5.41). These dates suggest a minimum span of A.D. 1210–1300 for these distinctive plain/burnished plain incurvate bowls with notched lips. Other grit tempered plain/burnished plain bowls with plain, unnotched lips are assumed to date to the same span.

Table 5.8. Ceramic sherds recovered from post-A.D. 1200 dated contexts used to define Early Brown phase assemblages.

	temper/aplastic content				
type surface treatment	medium sand/grit	sand	sand with sub-angular quartz particles	n/d	totals
Early Brown					
complicated stamped (indet.)		1			1
Mississippian					
plain	3				3
plain (burnished)	2		1		3
Twelve Mile					
check stamped			6		6
linear stamped (indet.)			4		4
stamped (indet.)			8		8
plain			3		3
smoothed (obliterated)			21		21
Ashe Ferry					
simple stamped			35		35
stamped (indet.)			4		4
smoothed (obliterated)		1	5		6
indet./eroded/spalled		1	10		11
sherdlets (<1.55cm)				34	34
totals	5	3	98	34	**140**

AMS assays of split samples from Feature 53, which yielded a notched Mississippian Plain/Burnished Plain bowl rim and two other small Mississippian Plain/Burnished Plain body sherds, returned dates (1010±30 yrs. BP [2 σ calibration: AD 970 to 1050, and AD 1090 to 1120]; 920±30 yrs. BP [2 σ calibration: AD 1030 to 1190 and AD 1200 to 1210] more comparable to those from contexts that yielded only Ashe Ferry Simple Stamped sherds. The latter of these dates overlaps substantially with that determined for Feature 76 (840±30 yrs. B.P. (2σ calibration cal. AD 1160 to 1260), and may reflect the inception of the Early Brown phase in the latter twelfth or early thirteenth century.

The particular style of "U"-shaped notching observed on Mississippian Plain/Burnished Plain bowl rims is also evident on 11 thickened or collared rims of flaring rimmed jars (Figures

5.29 and 5.30) recovered from plowzone contexts. These rims, most of which are elaborated with modeling and punctation, resemble distinctive Pisgah series rims (ca. A.D. 1200–1400) documented in the Blue Ridge highlands and foothills (see Charles and Ferguson 2005; Dickens 1976) and parallel the collared rims documented in the Beaverdam phase (ca. A.D. 1200–1300) (Rudolph and Hally 1985). The notched, thickened rims pair with grit tempered curvilinear complicated stamped bodies (n=61) that resemble the Savannah Complicated Stamped type, and these are categorized as Early Brown Complicated Stamped (described herein). Temporal association of Early Brown Complicated Stamped jars with Mississippian Plain/Burnished Plain bowls is inferred from the co-occurrence of the particular rim notching style (which is not observed on Ashe Ferry Simple Stamped rims). Grit tempered rectilinear complicated stamped and complicated stamped (type indeterminate) sherds are assigned, *de facto*, to the Early Brown Complicated Stamped type.

Figure 5.40. Ceramic sherds recovered from Feature 76,. top row: Mississippian plain bowl rim with dowel-notched lip and interior corona, obverse (left), reverse (right). Bottom row: Mississippian plain body sherds.

Twelve Mile Check Stamped wares appear to be contemporary with Mississippian Plain/Burnished Plain bowls and Early Brown Complicated Stamped jars, as indicated by AMS assay of materials from Feature 78, which returned an estimate of 750±30 years B.P. (2σ calibration, cal. A.D. 1230 to 1290; calibration curve intercept, cal. A.D. 1270). Feature 78 deposits yielded Ashe Ferry Simple Stamped Sherds, but also contained punctate and smoothed sherds that refit a large portion of a zoned linear check stamped jar from adjacent Feature 79. Because such Twelvemile Check Stamped wares did not occur in earlier Ashe Ferry phase features, it is assumed that this type can be appropriately associated with the 13th century date. This temporal association is indirectly supported by the spatial association of Twelvemile Check Stamped sherds with Mississippian Plain/Burnished Plain and Early Brown

Figure 5.41. Mississippian Plain/Burnished Plain ceramic sherds recovered from Feature 41. Note obverse and reverse views of plain bowl rim with dowel-notched lip, at top left.

Complicated Stamped sherds in the deposits above and surrounding Feature 41 (AMS dated to the 14th century).

Fewer than 500 sherds (~100 vessels) and only six features or feature deposits can be readily attributed to post-A.D. 1200 occupations (Tables 5.9 and 5.10). Although the case for temporal association of the Mississippian Plain/Burnished Plain, Early Brown Complicated Stamped, and Twelvemile Check Stamped types as primary elements of an Early Brown phase assemblage is somewhat circumstantial, the construct conveniently accommodates all of the latest ceramic evidence and associated dates as a coherent occupation of limited scale and duration that closely succeeded the terminal Woodland period Ashe Ferry phase occupations. Absence of well documented later 14th and 15th century South Appalachian Mississippian ceramic attributes in the 38YK533 samples, such as applique rosettes and pellets, cane punctations, segmented rimstrips, and bold incision found in the Wateree Valley Town Creek phase (ca. A.D. 1300–1350)

Table 5.9. Ceramic sherds attributed to Early Brown phase occupations.

	temper/aplastic content				
type surface treatment	crushed quartz	medium sand/grit	sand	sand with sub-angular quartz particles	totals
Early Brown					
complicated stamped (curvilinear)		10	4	47	61
complicated stamped (rectilinear)		4		6	10
complicated stamped (indet.)			2	13	15
linear stamped (indet.)		6		10	16
stamped (indet.)		15	1	5	21
collared rim*		3		13	16
Mississippian					
plain (burnished)	1	58	22	39	120
plain		38	13	61	112
plain (rough)		3		10	13
smoothed (obliterated)		7		8	15
cob marked				1	1
indet./eroded/spalled				3	3
Twelve Mile*					
check stamped		1	5	31	37
linear stamped (indet.)				7	7
stamped (indet.)				9	9
plain				3	3
smoothed (obliterated)				21	21
totals	1	145	47	285	**480**

*collared rims detached from body; surface treatment undetermined

** assignment of non-check stamped sherds to Twelve Mile type based on attribution to Feature 78/79 vessel

(DePratter and Judge 1990:57) and the PeeDee culture Leak phase (ca. A.D. 1300–1500) (Boudreaux 2005) supports a case for a single early Middle Mississippian component. Although Ashe Ferry Simple Stamped wares consistently occur in 13th and 14th century contexts, ceramic continuity or derivation between the Ashe Ferry and Early Brown phases is not clearly indicated. Because the Ashe Ferry Simple Stamped sherds from these contexts do not exhibit similarities in paste, temper, vessel form, surface treatment or secondary decorative treatment to the Mississippian Plain/Burnished Plain, Early Brown Complicated Stamped, and Twelvemile Check Stamped types, contemporaneity appears unlikely. However, similarities in structure and content of Ashe Ferry phase and Early Brown phase roasting facilities indicate continuity in specialized activities at 38YK533, and it is tempting to assert social and economic continuity in the groups that used the site in the 11th to mid-14th centuries.

As a composite construct of post-A.D. 1200 ceramic wares at 38YK533, the Early Brown phase can be characterized as including medium mixed sand/grit tempered and fine quartz sand (with medium/coarse quartz sand inclusions) tempered wares with plain/burnished plain (≈56%), complicated stamped (~27%), and check stamped (~8%) surface treatments. Overall, these

Table 5.10. Early Brown phase rim treatments, 38YK533.

	primary surface treatment									
secondary decorative treatment	plain/ burnished plain	plain (rough)	smoothed (obliterated)	complicated stamped	linear stamped (indet.)	check stamped	stamped (indet.)	n/d (thickened rim only)	indet./eroded	totals
notched lip	25	1	3	1	2		3	1	1	37
notched lip; incised			1							1
notched lip; incised; noded				1						1
notched lip; noded	4									4
notched lip; noded; punctate				1						1
notched lip; punctate					4			4		8
notched lip; lug	1									1
noded	1		1							2
punctate	1		2	1	4	2	1	3	1	15
punctate; incised	1									1
punctate; noded								1		1
none	24	2		6	3	1	4	2	3	45
totals	57	3	7	10	13	3	8	11	5	**117**

wares are thicker bodied, but more evenly potted than those in the preceding Ashe Ferry phase. Early Brown phase wares also exhibit harder bodies with lower aplastic content than Ashe Ferry wares, and typically exhibit highly smoothed or burnished interiors, with frequent interior smudging. Secondary decorative elaborations are common; 61% of Early Brown phase rims evince notching, punctation, incision, or modeling (often in combination), as contrasted with 24% of Ashe Ferry rims with light notching, incision, or punctation (Table 5.10). Early Brown phase vessel forms also include incurvate rim bowls (including carinated forms) in a variety of sizes, flaring rim bowls/pans, hemispherical bowls, globular short-necked jars, and tall necked globular jars.

The spatial extent of the Early Brown phase is unattested, and no other early Middle Mississippian components in the lower Catawba River basin have been investigated. Upstream, archaeological surveys of Lake Norman (Moore 2002) and reconnaissance in Gaston County, North Carolina (May 1985) found no evidence of Mississippian occupations predating ca. A.D. 1350. Small-scale investigations at Crowder's Creek (May 1989), Hardins (Keel 1990), and Hardins II (Levy and May 1987) revealed evidence of late Mississippian period occupations, but no indication of early or middle Mississippian period components. The absence (or lack of evidence) for early or middle Mississippian period occupations north of 38YK533 may position the Early Brown phase as the northernmost extension of Mississippian ceramic patterns in the lower and middle Catawba River basin prior to A.D. 1350.

The Early Brown phase (ca. A.D. 1200–1350) appears most comparable to early Middle Mississippian period ceramic assemblages from the Blair Mound site (Teague 1979), located along the Broad River, 42 miles southwest of 38YK533. Investigations at Blair recovered a ceramic collection that included plain/burnished plain bowls with notched lips, complicated stamped jars, collared jar rims elaborated with castellations, nodes, punctation and incision, and check stamped wares. Green and Bates (2003) note that:

> Pottery found at the [Blair Mound] site includes zoned punctated, simple stamped, check stamped, and complicated stamped surface treatments. Complicated stamped designs include nested diamonds, crosses, arc-angles, bull's-eyes, spirals, quartered and nested circles, and line block motifs. Rim forms included notched lips, reed punctations, incised rims, and riveted lugs. All of these forms are similar to Pee Dee series pottery found in the Wateree Valley.
>
> Based on these rim forms, the presence of zone punctated pottery, and the lack of rosettes and rim strips, we believe the initial Mississippian occupation occurred during the Belmont Neck Phase and continued through the Savannah II or early Adamson phase. Based on this, a tentative date of 1225–1300 can be established. Supporting this estimate are two radiocarbon dates obtained from the site. One sample, taken from a hearth, produced a date of 1195 ± 90 (UGa-406), while the second, taken from a postmold, yielded a date of 1325 ± 75 (UGa-405). This would make Blair roughly contemporary with the Lawton, Hollywood, Beaverdam Creek and Irene sites in the Savannah River Valley, and Belmont Neck in the Wateree Valley (Green and Bates 2003:4).

The McCollum Mound site, located in the Broad River Valley 33 miles west of 38YK533, appears to have been occupied slightly later than the Early Brown phase and Blair Mound (Green and Bates 2003; Ryan 1971). Green and Bates (2003:5) note that the McCollum assemblage includes wares with "segmented rim strips, reed punctations, and rosettes, all treatments commonly seen on Adamson and Town Creek phase sites in the Wateree Valley" as well as "collared and plain rims with horizontal and oblique ticks and incisions" that "closely resemble those found on Pisgah phase sites in North Carolina and Georgia, and at Rucker's Bottom, a palisaded village located in the Upper Savannah River Valley…" (Green and Bates 2003:5).

They also observed that "Based on the presence of the described rim treatments, as well as the absence of such earlier treatments as punctated and notched lips, zoned punctated sherds, and riveted lugs, a tentative date of 1275–1375 can be established" (Green and Bates 2003:5). Since Green and Bates' study, Charles and Ferguson have investigated well-defined Pisgah phase components on the Saluda River, 65 miles west of McCollum (Charles and Ferguson 2005), and have obtained a series of absolute dates that span the Early Brown phase and the occupations at McCollum (Terry Ferguson, personal communication 2012).

The Belmont Neck (ca. A.D. 1200–1250) and Adamson (ca. A.D. 1250–1300) phases defined in the Camden locality (48 miles southwest of 38YK533) are also somewhat comparable to the contemporaneous Early Brown phase (Cable 2003, 2007; DePratter and Judge 1990). Plain/burnished plain treatments account for 40% of Belmont Neck sherd surfaces and 59% of sherd surfaces in Adamson (comparable to Early Brown) (DePratter and Judge 1990:56-58). Conversely, complicated stamped treatments are noted on 43% of Belmont Necks sherds, 23% of Adamson sherds, and 27% of Early Brown phase sherds. Belmont Neck phase also includes Etowah-type nested diamond-based complicated stamp motifs, an early characteristic not seen in the 38YK533 sample. Belmont Neck and Adamson phases apparently lack the elaborate collared rims that distinguish the Early Brown phase (and which are evident at Blair Mound and other Broad River sites). Notched lip elaborations are present on 9% of Belmont Neck phase rims and 13% of Adamson phase rims. In general, the Early Brown phase appears to more closely resemble the Adamson phase (ca. 1250–1300) than its antecedent Belmont Neck phase (ca. A.D. 1200–1250). Possible chronological disconformity between Early Brown, Belmont Neck, and Adamson may be attributable to a lack of absolute chronological controls for much of the Camden-Wateree Valley sequence.

Also contemporary with the Early Brown phase is the Beaverdam phase (ca. A.D. 1200–1300) defined in the upper Savannah River Valley (Rudolph and Halley 1985; Halley 1990:52–53). Like the Early Brown phase, plain/burnished plain wares predominate (86%) but Beaverdam phase exhibits little complicated stamping (2%). As in Early Brown, punctate collared jar rims occur on complicated stamped bodies in the Beaverdam phase.

The Early Brown phase span overlaps that of the Lawton phase (ca. A.D. 1000–1250) and Hollywood phase (ca. A.D. 1250–1350) defined in the middle Savannah River Valley (Anderson 1994; Stephenson 2012). Anderson notes of the provisional Lawton phase:

> Diagnostic indicators include Savannah Complicated Stamped, Plain, Burnished Plain, Fine Cordmarked, and Check Stamped. The Savannah series materials typically have plain, unmodified rims lacking punctuations, rosettes, or nodes. Other finishes that may occur include plain (nonburnished) and, as a minority, cross V-shaped simple stamping (Santee Simple Stamped, *var. Santee*). The Savannah Check Stamped, Cordmarked, and Burnished Plain types may occur earlier than Savannah Complicated Stamped. Concentric circle motifs dominate the complicated stamped assemblages, with one- and two-bar diamond (Etowah motifs) less common. [Anderson 1994:370]

Stephenson (2012) observes that Anderson's proposed Lawton phase did not prove characteristic of the Lawton type site, but appears instead at sites 38AK753 and Riverfront Village (Whitley 2012). Early-early Middle Mississippian Lawton phase contexts at Riverfront Village yielded ceramic assemblages heavily dominated by plain wares (57%–93%) followed by complicated stamped treatments (6%–42%) and consistent incidence of cobmarked (1%–12.5%) and check stamped (.5%–12.5%) treatments. Associated rims are

apparently simple and largely undecorated, in contrast to the Early Brown rim elaborations. Stephenson (2012:18) notes that the succeeding Hollywood phase (ca. A.D. 1250–1350) is characterized by:

> Savannah Check Stamped, Savannah Plain and Burnished Plain, and Savannah Complicated Stamped dominated by variations of the filfot-cross motifs and other related designs. Additional characteristics include cane punctations and large riveted nodes impressed with cane punctations on unthickened jar rims (Anderson 1994:370; Anderson et al. 1986:40–41; Hally and Rudolph 1986:62–63).

DeBaillou (1965:6) indicates high proportions of plain (38%) and check stamped (41%) wares in Hollywood site collections, but the collared rims and notched lips distinctive of the Early Brown phase wares are not present.

Although the Pee Dee culture Town Creek phase (ca. AD. 1150–1300), centered in North Carolina at the Town Creek mound site (31MG3) (58 miles northeast of 38YK533), is largely contemporaneous with the Early Brown phase, the ceramic assemblages differ appreciably. Boudreaux (2005) reports that earlier Town Creek phase assemblages (ca. A.D. 1150–1250) include 44% complicated stamped surfaces and 22.5% plain/burnished plain surfaces, with minority representation of fabric impressed, cordmarked, simple stamped, and check stamped treatments. Later Town Creek phase (ca. AD. 1250–1350) assemblages show an increase in plain/burnished plain treatments (38%) but relatively stable, high representation of complicated stamped treatments (42%). Notched rim treatments and collared rims are not present in Town Creek phase assemblages.

As these gross scale comparisons indicate, development and contemporaneous expressions of South Appalachian Mississippian (Caldwell 1958; Ferguson 1971) ceramic practice during the early Middle Mississippian period varied considerably at local and regional scales. While common elements (e.g., grit tempered burnished plain bowls, complicated stamped jars) unify these ceramic phases as part of a widely shared ceramic tradition, substantial variation in documented assemblages indicates independent trajectories in the development of local Mississippian ceramic patterns. Some of this variation is likely minor stylistic differences, while other aspects (e.g., proportions of plain bowl forms vs. stamped jar forms) may represent important technofunctional variation in vessel assemblages and their household contexts.

Comparisons with the Early Brown phase at 38YK533 are probably also influenced by differences in site function. Most of the better documented early Middle Mississippian period assemblages that are contemporaneous with Early Brown derive from village/mound center complexes, where activities involving ceramic use covered a spectrum of function from daily domestic household chores to community-scale ritual. By contrast, the Early Brown phase occupations at 38YK533 appear more narrowly focused on seasonal extraction activities (much like the preceding Ashe Ferry phase) in which the range of ceramic functions were probably somewhat restricted. This type of site use almost certainly shaped the vessel assemblage, emphasizing particular vessel shapes and sizes (and the treatments and decorations associated with particular vessel classes) (e.g., restricted bowls and small collared jars) at the expense of others (e.g., large flaring rimmed or necked jars). In addition, because the Early Brown phase component at 38YK533 does not appear to reflect long-term residential use, the ceramic vessels represented by the sherd collections were most likely produced in other, and potentially distant, locations, and may even reflect a composite of vessels from disparate localities. Therefore, until additional early Middle Mississippian period components are documented in the lower Catawba

River Valley, the Early Brown phase cannot be fully construed as "typical" of the immediate area.

Summary and Discussion

The ceramic sherd collections recovered from 38YK533 during the 2010 investigations document varying scales and intensities of site occupations across more than a millennium, from the Early Woodland period through the early Middle Mississippian period. The very sparse incidence of Badin, Deptford, Yadkin, and other Early and Middle Woodland period ceramic wares (which account for 1.5% of diagnostic sherds) connote light, infrequent ephemeral use of the site prior to ca. A.D. 900–1000. Toward the end of the Late Woodland period, occupation of 38YK533 increased dramatically, as indicated by a recovered collection of more than 6800 Ashe Ferry Simple Stamped sherds that represent at least 200 ceramic vessels deposited over a span of 150–200 years (i.e., between about A.D. 950 and A.D. 1200). These Late Woodland period occupations were probably small, episodic, and redundant, with site use particularly concentrated ca. A.D. 1000–1050 (as indicated by AMS dated Ashe Ferry phase contexts). Vessel assemblages associated with these Ashe Ferry phase occupations include medium-sized (~8l–15l), vertical open jars, jars with inslanting rims, restricted orifice jars, necked jars with weakly defined constrictions, and hemispherical bowls. Facilities associated with the Ashe Ferry phase occupations reflect a limited range of functions related to wild plant food (e.g., acorns) processing and storage, and it is inferred that the numerous Ashe Ferry phase ceramic vessels, particularly jars, were integral to these specialized processing activities. Because the formal range and content of Ashe Ferry facilities appear to indicate more specialized site function, it is unclear whether the Ashe Ferry vessel assemblage at 38YK533 is broadly representative of the Ashe Ferry phase, or a more narrowly focused subset tailored to the predominant processing activities at the site.

Incorporated into the Ashe Ferry phase assemblages are small numbers of Woodstock Complicated Stamped sherds (more commonly associated with terminal Woodland/emergent Mississippian occupations in the north Georgia piedmont), Uwharrie Fabric Impressed sherds (typically associated with early Late Woodland period occupations in the central North Carolina piedmont), and Cape Fear Fabric Impressed sherds (wares generally associated with late Middle Woodland and early Late Woodland occupations in the Carolina Coastal Plain). The documented date ranges of these wares are consistent with the earlier (i.e., ca. A.D. 1000–1050), higher intensity or higher frequency Ashe Ferry phase occupations. None of these wares were associated with the latest Ashe Ferry phase contexts (ca. AD 1160), which yielded collections of sand tempered simple stamped and plain/smoothed ware, with bowl forms much more prominent than in 11th century contexts.

Wares associated with the Ashe Ferry phase comprise 92% of the diagnostic sherds (i.e., sherds larger than 1.55cm diameter with definable surface treatments) recovered in the 2010 investigations. These Ashe Ferry phase ceramic sherds were the primary (and most recent) temporally diagnostic artifacts associated with 41 discrete contexts defined at the site, accounting for 85% of feature contexts that can be attributed to cultural phase or period.

The late Ashe Ferry phase assemblage appears to be the immediate precursor of South Appalachian Mississippian pattern ceramic assemblages at 38YK533. Approximately 480 ceramic sherds (attributable to approximately 100 distinct vessels) recovered from site deposits (primarily plowzone) are distinguished from Ashe Ferry wares on the basis of paste, surface

treatment, decorative treatments and vessel form, and appear most comparable to early Middle Mississippian period wares documented at the Belmont Neck and Blair Mound sites. These Mississippian sherd assemblages constitute the Early Brown phase and reflect small-scale, probably episodic occupations of the site ca. A.D. 1200–1350. The Early Brown phase assemblage appears markedly more diverse that the preceding Ashe Ferry phase collection, with multiple vessel forms (including small short neck globular jars, restricted rim bowls, carinated and hemispherical bowls, castellate jars, flaring rim jars and bowls), decorated in a profusion of secondary treatments.

Certain vessel forms common to South Appalachian Mississippian ceramic assemblages (i.e., large, tall neck jars [see Hally 1984]) are grossly underrepresented at 38YK533. The near absence of these normally abundant large vessel forms may indicate that certain common domestic vessel functions were not deployed at the Ashe Ferry site during the Early Brown phase. Instead, early Middle Mississippian period site occupations may have focused on a limited range of non-residential activities, as was the case during the preceding Ashe Ferry phase. Only seven discrete deposits (i.e., Features 41, 46, 53, 63, 76, 78, and 79) are attributed to the Early Brown phase occupation; these include two rock-filled roasting facilities with substantial quantities of acorn nutshell, similar to those documented with the Ashe Ferry phase component. No postholes or other indications of longer term domiciles (e.g., formal, interior hearths) are associated with the Early Brown phase component, nor are there substantial storage facilities or human interments referable to Early Brown occupations. Like the Ashe Ferry phase component, the Early Brown phase component appears to have been less continuous and more functionally focused than "normal" residential occupation. Furthermore, the incidence of rock-filled roasting facilities with abundant acorn nutshell in the Early Brown phase component indicates continuity in specific site function from Ashe Ferry phase antecedents.

The closely sequential dating of the Ashe Ferry and Early Brown phases poses questions about the nature of the relationships between these two markedly different ceramic assemblages. Although Ashe Ferry and Early Brown wares co-occur in a number of discrete contexts at 38YK533, the wares are not demonstrably coeval. Accidental inclusion of Ashe Ferry wares in post-A.D. 1200 contexts appears to be a function of the general abundance and ubiquity of Ashe Ferry wares in extensive site deposits. Moreover, no hybrid Ashe Ferry/Early Brown forms are present; the paste, interior and exterior finishes, secondary decorative treatments and vessel forms documented for Ashe Ferry and Early Brown wares indicate two discrete, non-overlapping sets. Nonetheless, the transition between Ashe Ferry assemblages and Early Brown assemblages, as represented at 38YK533, appears to have occurred rapidly and completely between ca. A.D. 1160 and ca. A.D. 1210, a span typically associated with the inception of Middle Mississippian period Savannah culture (Hally and Rudolph 1986:51). In the upper Wateree River Valley (Camden district) and in the Savannah River Valley, there are documented Early Mississippian period antecedents (typically Etowah-like) to Savannah culture (Cable 2000). DePratter (Anderson et al. 1996) and others (i.e., McWhorter 2008; Stewart 2008; Vanier 2010; Wagner 2003, 2008) have posited Late Woodland period Ashe Ferry-like antecedents to Early Mississippian assemblages in the Camden district. The appearance of the Early Brown phase ceramic assemblages fast on the heels of the Ashe Ferry phase points to asynchronous development of Mississippian patterns across the Carolina piedmont, a trend amplified by the apparent absence of early Middle Mississippian period assemblages in the middle Catawba River Valley (see Moore 2002). The timing, tempo, and process of change from terminal Woodland

ceramic patterns (and, presumably foodways and economic patterns) to those characteristic of mature Mississippian development in the lower Catawba River basin is clearly a topic for additional research.