

Chapter 8

Summary and Conclusions

The 2010 archaeological investigations of the Ashe Ferry site (38YK533) aimed to document contexts and recover assemblages from the site in order to mitigate adverse impacts to the site occasioned by the replacement of the SC Highway 5 bridge across the Catawba River. Construction of a new bridge and approach ramp after the conclusion of field investigations obliterated or buried that portion of 38YK533 north of the existing 1959 roadway that bisected the site. Phase I archaeological survey of the bridge replacement project area by Legacy Research Associates in 2008 identified the Ashe Ferry site and documented the presence of potential buried contents, discrete features, and appreciable substantive content, qualities that led SCDOT to seek further evaluation of contextual integrity and content as an initial stage of the 2010 investigations. Testing of the site by the UNC Research Laboratories of Archaeology in the spring of 2010 clearly demonstrated integrity of site deposits and the presence of coherent material assemblages that exhibited capacity to “yield information important to prehistory,” consistent with significance Criterion D for eligibility of the site for inclusion in the National Register of Historic Places. Because avoidance or other preservation options were not feasible given the scope of the bridge replacement project, mitigation of construction impacts through data recovery of “information important to prehistory” was undertaken immediately on the heels of site evaluation and expedited consultation, consistent with Section 106 of the National Historic Preservation Act.

Site testing and evaluation recovered materials that indicated the presence of multiple archaeological components, with especially strong representation of terminal/Late Woodland period components and, secondarily, Mississippian period components. These components were not identified in the 2008 survey, but were clearly significant as instances of archaeological complexes that had previously been poorly documented in the lower Catawba River Valley and in the South Carolina central piedmont region. As such, the assemblages and contexts investigated at the Ashe Ferry site are clearly pivotal for development of culture historical sequences for the region. Comparison of the Ashe Ferry assemblages with those documented in surrounding regions illustrates variability and asynchronicity in the transitions from Woodland period cultural patterns to those characteristic of the Mississippian period.

Field investigations at 38YK533 included hand excavation of one-meter square units totaling 216m² to obtain material samples from plowed soils and underlying A-horizon remnants and to document site stratigraphy. This well distributed sample amounted to approximately 3.5% of the accessible site area (exclusive of the area obscured/obliterated by the existing SC Highway 5 causeway). These hand excavated units revealed soil stratigraphy consisting of two superimposed historic era plowzones above patchy A-horizon remnants over largely undifferentiated eluviated sands. The uppermost plowzone primarily represents overburden deposits from the 1916 flood event, but slightly intruded a pre-1916 horizon of plowed soils that contained abundant artifact inclusions. Hand excavated units yielded artifact samples that included approximately 8,500 ceramic sherds and 10,000 lithic artifacts. Among those ceramic sherds that can be referenced to historical types, 92% are consistent with Late Woodland period site occupations, and 6% are attributed to Mississippian period site occupations. Mechanical removal of plowed soils from 2583 m² (42% of the accessible site area) revealed 52 cultural features evident at or near the base of the pre-1916 plowzone. Excavation of these facilities recovered material associations indicating that 42 features are referable to Late Woodland period

site occupations, seven include Mississippian period deposits, one is associated with Early Woodland period site occupation and one is associated with Late Archaic period occupations. AMS dates obtained from 10 contexts indicate that the predominant Late Woodland period Ashe Ferry phase components spanned ca. A.D. 1000–1150, followed by occupations during the early Middle Mississippian period Early Brown phase, ca. A.D. 1150-1350.

Two classes of facilities, fire-cracked rock filled basins and deep pits, account for almost half of the cultural features. Archaeobotanical analyses indicate that the fire cracked rock filled basins included *de facto* charcoal content heavily dominated by acorn nutshells, results interpreted as evidence for use of these features as acorn parching facilities. Deep pits are interpreted as storage facilities, and their spatial association with fire cracked rock filled basins is interpreted as evidence for redundant spatial segregation of processing and storage activities from core residential activities at the site. Spatial association of fire-cracked rock filled basins and deep pits may also connote possible functional association as facilities employed in the mass parching and storage of acorns. AMS dates obtained from fire-cracked rock filled basins indicate that these acorn roasting facilities were constructed and used throughout the Ashe Ferry and Early Brown phases. The abundance and spatial (and temporal) redundancy of these facilities indicates that acorn roasting (and, by extension, acorn gathering, processing, storage and consumption) was a focal activity at the Ashe Ferry site for almost 350 years. By contrast, facilities associated with long term residential use, such as “permanent” architecture and formal hearths, are notably lacking at the site, and the Late Woodland and early Middle Mississippian period site occupations are interpreted as a series of short- and medium-term camps rather than continuous permanent residential occupations. Although incidence of various botanical and faunal remains bespeak resources available in warm weather months, the vast predominance of acorn and hickory nut residues indicates autumn use of the site as a seasonal base camp for procurement and processing of hard mast. Apparent long-term trends in site use indicate stable, structural conditions of resource availability (e.g., proximity to productive oak and hickory groves), coupled with local conditions appropriate to focal uses (e.g., sandy, porous soil matrices, abundant fresh water, and abundant uniform cobbles for acorn processing) and peripheral uses (e.g., proximity to fish weir and stream crossing). Decline in the use of the site after circa A.D. 1200 may reflect gradual de-emphasis of acorns in the subsistence economy, or constrictions of mobility based subsistence systems that may have accompanied the spread of Mississippian cultural patterns through the Carolina piedmont.

Material assemblages recovered from 38YK533 contexts are consistent with hypothesized site function as a seasonal extraction camp redundantly occupied during the terminal Late Woodland and early Middle Mississippian periods. Lithic (i.e., flaked stone) artifacts are the most abundant class recovered from the site; 13,673 (96%) of these objects are nondiagnostic debitage from the production of stone tools. Among 457 projectile points and point fragments, 419 (92%) are small triangular points referable to Late Woodland period and Mississippian period occupations, and are most consistent with the Caraway Triangular type. Probably contemporaneous with these small triangular projectile points are eight small shouldered pentagonal points. Most of these projectile points were produced from fine-grained metavolcanic materials derived from peri-local sources, an indication that the populations that frequented the Ashe Ferry site maintained territories that intersected or otherwise maintained access to Carolina Slate Belt deposits.

The relative abundance of these small arrowpoints at 38YK533 probably reflects a secondary focus of Ashe Ferry phase and Early Brown phase site occupations as a hunting

basecamp, from which hunting forays targeted animals and birds attracted to the mast crops that also drew human collectors. The sparse incidence of earlier diagnostic projectile point forms (e.g., Kirk, Morrow Mountain, Savannah River) attests low frequency and low intensity use of the site in early to mid-Holocene times.

Ceramic artifact assemblages recovered from 38YK533 contexts are dominated by Ashe Ferry Simple Stamped sherds associated with terminal Late Woodland period occupations. This newly defined ware is most comparable to the Santee Simple Stamped and McClellanville Simple Stamped types defined in the South Carolina Coastal Plain, and appears to be a precursor to Mississippian ceramic patterns in the central piedmont region. Although previous researchers have posited such sand tempered simple stamped wares as terminal Woodland pattern ceramics in the South Carolina piedmont, the Ashe Ferry sample is the first instance in which such ceramics are documented in discrete, independently dated contexts. These wares appear to be localized expressions of a much larger (300km x 500km) terminal Woodland period ceramic horizon indicative of a diffuse information network that spanned a vast swath of the southeastern piedmont. The spatial distribution of the Ashe Ferry Simple Stamped type is unattested, but similar sand tempered simple stamped wares are reported from the upper Wateree and lower Catawba river valleys and the middle Broad River Valley. AMS dates derived from contexts with Ashe Ferry Simple Stamped wares (as *terminus post quem* markers) indicate occurrence of this ceramic type at 38YK533 from as early as A.D. 970 to as late as A.D. 1210, with a more probable refined range of circa A.D. 1010–1160. This temporal position fits within date ranges for the Santee Simple Stamped/McClellanville Simple Stamped types, but also corresponds with the rise of South Appalachian Mississippian assemblages in the upper and middle Savannah River Valley and, possibly, the Camden area of the upper Wateree River Valley. The chronologies of these Early Mississippian assemblages still require considerable refinement, but the apparent contemporaneous dating of the Ashe Ferry phase assemblages points to local and subregional asynchronicity in the development and spread of Mississippian cultural patterns.

The relatively high density of Ashe Ferry Simple Stamped ceramic sherds at 38YK533, a hypothesized extraction camp, probably reflects both basic domestic uses in generalized camp cooking, as well as use of vessels in more specialized activities such as processing acorns. Ethnographically documented methods for de-acidifying acorns for consumption included boiling shelled acorns or acorn meal in multiple water baths, in some cases with the addition of wood ashes, to flush or neutralize tannins. This acorn processing technique probably involved numerous ceramic vessels beyond those needed for everyday cooking, and the heavy manipulation of vessels involved in acorn processing likely occasioned frequent breakage (and deposition).

Apparently successive to assemblages dominated by Ashe Ferry Simple Stamped wares are South Appalachian Mississippian ceramic assemblages characterized by burnished plain bowls with notched lips and curvilinear complicated stamped jars with elaborate collared rims (defined herein as “Early Brown phase”). AMS dates obtained from contexts that included Mississippian Plain/Burnished Plain sherds range from as early as A.D. 1020 to as late as A.D. 1380, with a more probable range of A.D. 1150–1300. The AMS dates for contexts including both South Appalachian Mississippian wares and Ashe Ferry Simple Stamped sherds overlap considerably with those for contexts that include only Ashe Ferry Simple Stamped sherds, raising the possibility of contemporaneity of Early Brown phase ceramic types with Ashe Ferry phase types. In none of these cases is “hybridity” evident; the Ashe Ferry phase wares and Early Brown phase wares are completely distinguished by paste, surface treatment, interior surface finish, and

secondary decoration. Lack of formal and stylistic overlap in these wares probably signals production by different communities of potters— separated by time and/or social and cultural distance.

The Early Brown phase ceramic wares recovered from 38YK533 bear general similarities to early Middle Mississippian period ceramics (i.e., Savannah Culture) documented throughout South Carolina, but most closely resemble ceramic assemblages from the middle Broad River basin, including wares recovered at the Blair Mound and Tyger Village sites. The complicated stamped wares with elaborated collared rims that distinguish the Ashe Ferry assemblage are not documented in contemporaneous assemblages at Belmont Neck, 55 miles downstream in the upper Wateree River Valley, and it is unclear, at present, if the Early Brown phase materials are more locally widespread in the lower Catawba River Valley. If not, the apparent similarity of the Early Brown assemblage at Ashe Ferry to Broad River Valley assemblages (i.e., Blair Mound) might suggest that the populations that used the Ashe Ferry site in the 13th and 14th centuries maintained residential bases in the Broad River Valley.

It is noteworthy that the terminal Woodland period and Mississippian period occupations at Ashe Ferry generated similar suites of facilities that exhibit similar content. Specifically, fire-cracked rock filled basins associated with the Early Brown phase component yielded large quantities and high relative frequencies of charred acorn shell. This pattern is interpreted as evidence for stability in site function (i.e., use as an acorn processing camp) through a span of major change in ceramic assemblages. This may reflect economic and settlement continuity within a community that experienced significant temporal shifts in ceramic production. Alternatively, evidence for continuity in site function in the Ashe Ferry and Early Brown phases may reflect different communities mapping onto an optimal location for similar exploitation of a stable resource base.

To summarize, investigations at the Ashe Ferry Site produced two major substantive results. First, analysis of ceramic assemblages identified and documented two previously undefined cultural complexes, the Ashe Ferry phase and the Early Brown phase. These ceramic phases are described in detail, and the absolute chronological position of these complexes is defined through a series of AMS assays. Such basic definitional efforts are key to development of local and regional culture historical sequences, and facilitate comparisons to developments in surrounding regions. Definition and temporal placement of the Ashe Ferry phase extends the geographic scope of a supra-regional terminal Late Woodland period horizon of simple stamped ceramics posited by Anderson (Anderson, et al., 1996) and others. Furthermore, definition and dating of these ceramic phases illuminates the form and timing of the transition from Late Woodland period ceramic patterns to those characteristic of the Mississippian period. This transition, as evidenced at Ashe Ferry, proves somewhat later and more abrupt than anticipated, and suggests marked asynchronicity in the development or spread of Mississippian cultural patterns across the region.

The second major finding of the 2010 investigations at Ashe Ferry is identification of the site as a seasonal base camp for collection and processing of arboreal crops (particularly acorns) during the Ashe Ferry and Early Brown phases. This site function is attested by the vast predominance (and overall abundance) of acorn residues in analyzed botanical samples, the clear association of acorn remains as primary, *de facto* refuse in fire cracked rock-filled basins (the most common facility type at 38YK533), and, less directly, by the spatial relationships of fire cracked rock-filled basins (roasting facilities) with large deep pits (storage facilities). Absence

of architectural evidence (other than fired daub fragments) at the site connotes temporary occupations, as does the low diversity and relatively low density of facilities.

Evidence from the Ashe Ferry Site also intimates the importance of arboreal nuts in Late Woodland period subsistence systems in the central piedmont region, and illustrates continuity in longstanding patterns of seasonal mobility to access focal resources. This data accentuates the findings of recent analyses of Late Woodland period and Early Mississippian period archaeobotanical samples from residential sites in the South Carolina Piedmont and Coastal Plain (see Hollenbach 2010a, 2010b; Wagner 2008, 2013), where acorns appear to have been major dietary constituents. The particular prominence of acorns in the Ashe Ferry record is a likely function of mass processing activities that generated large quantities of residues at the site. The products of such processing, including shelled nutmeats and acorn meal, were either consumed on site during the acorn harvest season, stored on site for later use, or transported to other camps or residential bases for later consumption. Processing and disposal of nutshell residues in outlying extraction camps such as the Ashe Ferry Site certainly reduced residue loads at residential bases, with the result that balanophagy and the procurement and processing systems related to acorn use might be significantly underrepresented and under recognized in residential base site samples.

Finally, it should be noted that much of the archaeological evidence documented at the Ashe Ferry Site by the 2010 investigations survived only because a heavy mantle of flood deposits protected shallow feature contexts from the ravages of mechanized plowing in the twentieth century. Prior to 1900, the site was cultivated with horse or mule-drawn shallow draft plows that cut less than twenty centimeters, truncating, but not completely obliterating many shallow features. After the floods of 1904 and 1916 dumped 20-30cm of sand over the site surface, subsequent plowing attempts never completely penetrated the earlier plowzone, with the result that archaeological deposits did not suffer truncation by mechanized tilth. Had site deposits at 38YK533 experienced 30cm-40cm of plow truncation typical in modern agricultural regimes, few discrete contexts other than deep pit features would have survived, and the entire record of shallow fire-cracked rock filled roasting facilities would have been obliterated. Without these facilities and their content, interpretation of site function at 38YK533 would have remained necessarily vague. While components like those documented at the Ashe Ferry site are likely numerous throughout the region, the depositional context at 38YK533 is markedly uncommon, and similar site components are typically degraded by plowing and erosion, and reduced to palimpsests of pottery, projectile points and fire-cracked rocks in plowzone deposits.

The Ashe Ferry Site, by virtue of its unique depositional history, presented, upon investigation, an exceptional degree of contextual integrity that greatly facilitated clarity and detail of interpretation. As a result, the 2010 excavations at Ashe Ferry recovered evidence that not only spans (and illuminates) a noteworthy gap in the culture history of the region, but also provides detailed insights into local settlement-subsistence systems at a juncture in the transitions of native communities from hunter-gatherer-collector strategies to intensified horticultural economies.